1215 BORDEAUX DRIVE HEALTH RISK ASSESSMENT

Sunnyvale, California

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Introduction

The purpose of this report is to address the potential health risk impacts associated with the proposed residential project located at 1215 Bordeaux Drive in Sunnyvale, California. Air quality impacts from this project would be associated with the demolition of the existing uses and construction of the new building. Air pollutant emissions associated with construction 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 District (Air District).[1]

Project Description

The approximately 1.98-acre project site is currently occupied by an existing office building and associated surface parking within the Moffett Park Specific Plan area. The project proposes to demolish the existing improvements to construct a new eight-story building with 265 multi-family residential units totaling 257,477 square-feet (sf) over a parking garage totaling 39,929-sf with 217 parking spaces. The project would also include an 18,740-sf neighborhood park and a 500-kilowatt (kW) diesel-powered emergency fire pump. Construction is anticipated to occur from approximately January 2027 through March 2028. The project is part of the Moffett Park Specific Plan.

Setting

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 seventy percent of the cancer risk from TACs (based on the Bay Area average).[2] 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

[1] Formerly known as the Bay Area Air Quality Management District (BAAQMD), *2022 CEQA Air Quality Guidelines*, April 2023.
[2] CARB, *Summary: Diesel Particulate Matter Health Impacts*, Web: https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts#footnote1_7yob8j5.

incorporated in the Air District's current California Environmental Quality Act (CEQA) guidance.[3]

Fine particulate matter ($PM_{2.5}$) emissions can include TACs. Due to the adverse health effects caused by $PM_{2.5}$ exposure even at low concentrations, the Air District developed assessing methods and health risk thresholds to address exposure to increased concentrations caused by project $PM_{2.5}$ emissions.[4]

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. There are no sensitive receptors located within 1,000 feet of the project site. Due to the project's proximity to nearby businesses, worker receptors were included in this analysis. This project would introduce new sensitive receptors (i.e., residents) to the area.

Bay Area Air District

The Air District 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.

Bay Area Air District CEQA Air Quality Guidelines

In June 2010, the Air District adopted thresholds of significance to assist in the review of projects under CEQA. In 2023, the Air District revised the *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 Air District 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.[5] Air quality impacts and health risks are considered potentially significant if they exceed these thresholds.

[3] 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.
[4] Bay Area Air District, *2022 CEQA Air Quality Guidelines*, Appendix A, p40.
[5] Bay Area Air District, *2022 CEQA Air Quality Guidelines*, April 2023.

The Air District 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). The Air District 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.

Table 1. Bay Area Air District CEQA Significance Thresholds

Health Risks and Hazards	**Single Sources / Individual Projects**		**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	
Note: 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. * The Air District 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 District, 2022 CEQA Air Quality Guidelines

Bay Area Air District Rules and Regulations

Combustion equipment associated with the proposed project includes a new diesel engine to power the fire pump which would establish new sources of particulate matter and gaseous emissions. Emissions would primarily result from the testing of the emergency backup fire pump. Certain emission sources would be subject to Bay Area Air District Regulations and Rules. The District's rules and regulations that may apply to the project include:

- Regulation 2 – Permits
  - Rule 2-1: General Requirements
  - Rule 2-2: New Source Review
  - Rule 2-5: New Source Review of Toxic Air Contaminants
- Regulation 6 – Particulate Matter and Visible Emissions
  - Rule 6-3: Wood-Burning Devices
- Regulation 9 – Inorganic Gaseous Pollutants
  - Rule 9-1: Sulfur Dioxide
  - Rule 9-7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, And Process Heaters
  - Rule 9-4: Nitrogen Oxides from Fan Type Residential Central Furnace
  - Rule 9-6: Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters
  - Rule 9-8: Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines

Permits

Rule 2-1-301 requires that any person installing, modifying, or replacing any equipment, the use of which may reduce or control the emission of air contaminants, shall first obtain an Authority to Construct (ATC).

Rule 2-1-302 requires that written authorization from the Bay Area Air District in the form of a Permit to Operate (PTO) be secured before any such equipment is used or operated.

Rule 2-1 lists sources that are exempt from permitting.

New Source Review

Rule 2-2, New Source Review (NSR), applies to all new and modified sources or facilities that are subject to the requirements of Rule 2-1-301. The purpose of the rule is to provide for review of such sources and to provide mechanisms by which no net increase in emissions will result.

Rule 2-2-301 requires that an applicant for an ATC or PTO apply Best Available Control Technology (BACT) to any new or modified source that results in an increase in emissions and has emissions of precursor organic compounds, non-precursor organic compounds, NOx, SO_2, PM_{10}, or CO of 10.0 pounds or more per highest day. BACT will be required for NOx emissions from the diesel-fueled engines.

Rule 2-5 applies to new and modified sources of TAC emissions. Bay Area Air District evaluates the TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. Toxics BACT (or TBACT) is applied to any new or modified source of TACs where the source risk is a cancer risk greater than 1.0 in one million and/or a chronic hazard index greater than 0.20. Permits are not issued for any new or modified source that has risks or net project risks that exceed a cancer risk of 10.0 in one million or a chronic or acute hazard index of 1.0.

Stationary Diesel Airborne Toxic Control Measure

The Bay Area Air District administers the CARB's Airborne Toxic Control Measure (ACTM) for Stationary Diesel engines (section 93115, title 17 CA Code of Regulations). The project's stationary sources will be new stationary emergency stationary emergency standby diesel engines larger than 50 horsepower (hp). These limits vary based on maximum engine power. All engines are limited to PM emission rates of 0.15 g/hp-hour, regardless of size. This ACTM limits engine operation 50 hours per year for routine testing and maintenance.

Offsets

Rule 2-2-302 requires that offsets be provided for a new or modified source that emits more than 10 tons per year of NOx or precursor organic compounds. It is not expected that emissions of any pollutant will exceed the offset thresholds.

Prohibitory Rules

Regulation 6 pertains to particulate matter and visible emissions. Although the engines will be fueled with diesel, they will be modern, low emission engines. Thus, the engines are expected to comply with Regulation 6.

Rule 6-3 applies to emissions from wood-burning devices. Effective November 1, 2016, no person or builder shall install a wood-burning device in a new building construction.

Rule 9-1 applies to sulfur dioxide. The engines will use ultra-low sulfur diesel fuel (less than 15 ppm sulfur) and will not be a significant source of sulfur dioxide emissions and are expected to comply with the requirements of Rule 9-1.

Rule 9-7 limits the emissions of NOx CO from industrial, institutional and commercial boilers, steam generators and process heaters. This regulation typically applies to boilers with a heat rating of 2 million British Thermal Units (BTU) per hour.

Rule 9-8 prescribes NOx and CO emission limits for stationary internal combustion engines. Since the proposed engines will be used with emergency standby fire pump, Regulation 9-8-110 exempts the engines from the requirements of this Rule, except for the recordkeeping requirements (9-8-530) and limitations on hours of operation for reliability-related operation (maintenance and testing). The engines will not operate more than 50 hours per year, which will satisfy the requirements of 9-8-111.

BACT for Diesel Engines

Since the fire pump will be used exclusively for emergency use during involuntary loss of power, the BACT levels listed for IC compression engines in the Bay Area Air District BACT Guidelines would apply. These are provided for two separate size ranges of diesel engines:

> I.C. Engine – Compression Ignition >50hp and <1,000hp: Bay Area Air District applies BACT emission limits based on the ATCM for stationary emergency standby diesel engines larger than 50 brake-horsepower (BHP). NOx emission factor limit is subject to the CARB ACTM that ranges from 0.3 to 0.5 grams per horsepower hour (g/hp-hr). The PM (PM_{10} or $PM_{2.5}$) limit is 0.02 g/hp-hr per CARB's ACTM.
>
> I.C. Engine – Compression Ignition >1,000hp: Bay Area Air District applies specific BACT emission limits for stationary emergency standby diesel engines equal or larger than 1,000 BHP. NOx emission factor limit is subject to the CARB ACTM that ranges from 0.5 g/hp-hr. The PM (PM_{10} or $PM_{2.5}$) limit is 0.02 g/hp-hr. POC (i.e., ROG) limits are 0.14 g/hp-hr.

City of Sunnyvale General Plan

The following air quality goals and policies contained in the City's General Plan[6] are applicable to the proposed project:

[6] City of Sunnyvale, 2011. *Sunnyvale General Plan*.

Goal EM-11 Improved Air Quality: Improve Sunnyvale's Air Quality and Reduce the Exposure of its Citizens to Air Pollutants.

- *Policy EM-11.1*: The City should actively participate in regional air quality planning. Future development within Sunnyvale impacts regional air quality. Indirect impacts are related to vehicle trips attracted to or generated by residential, commercial or employment-generating land uses. There are several methods in which land use regulations can be used to both reduce emissions and alleviate the impact on residences. By locating employment and retail services areas closer to residential areas, vehicle use can be reduced.

- *Policy EM-11.2*: Utilize land use strategies to reduce air quality impact, including opportunities for citizens to live and work in close proximity.

- *Policy EM-11.3*: Require all new development to utilize site planning to protect citizens from unnecessary exposure to air pollutants.

- *Policy EM-11.4*: Apply the indirect source rule to new development with significant air quality impacts. Indirect source review would cover commercial and residential projects as well as other land uses that produce or attract motor vehicle traffic.

Moffett Park Specific Plan (MPSP) and Draft Environmental Impact Report (DEIR)

The MPSP area is an approximately 1,156-acre site located in the northern most portion of Sunnyvale. The MPSP was adopted by the City of Sunnyvale in 2004 and amended in 2013. On July 11, 2023, the Sunnyvale City Council adopted the Updated MPSP and DEIR.[7,8] The Updated Plan allows for the addition of residential uses and an increase in the allowable office/industrial/R&D, commercial, and institutional uses within Moffett Park. The applicable project requirements were identified:

Construction and Operational Management Project Requirements:

• **10.3.3-1:** Air District Construction Management Practices. All future construction projects under the Specific Plan shall implement the following Air District basic BMPs to reduce DPM, $PM_{2.5}$, and PM_{10} emissions during construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples of moisture probe.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

[7] Moffett Park Specific Plan, URL: https://www.dropbox.com/scl/fi/52w8w42suiwc0u3e7wepn/SMPSP_FinalPlan_HiRes.pdf?rlkey=i9zy4m0lqzla52twhmfm4gaa3&e=1&dl=0

[8] Moffett Park Specific Plan, URL: https://www.dropbox.com/scl/fi/8v7r66eb0s453aszhnk8i/MoffettParkSpecificPlan_DraftEIR_121622.pdf?rlkey=rsxxjshbmger8heqip2rzcnb6&e=1&dl=0

- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- 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.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and 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 phone number shall also be visible to ensure compliance with applicable regulations.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour and visible dust extends beyond site boundaries.
- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities in the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
- Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) site accesses to a distance of 100 feet from public paved roads shall be treated with a six to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

10.3.3-2: Construction and Operations Modeling. If future construction projects do not meet the screening level size identified by the Bay Area Air Quality Management District for less than significant construction criteria air pollutant emissions, future construction projects shall estimate construction and operation period emissions using modeling methodologies recommended by the Air District and approved by the City. Average daily emissions predicted for construction projects shall be estimated and compared against project level thresholds identified in Table 1 above. Projects that have emissions exceeding the thresholds shall implement appropriate measures to achieve emissions that are below the thresholds, such as the following:

- Use construction equipment that has zero or low diesel particulate matter exhaust and NOx emissions. Exhaust emission (NOx and PM) control measures include:

- 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 emission standards for NOx and PM (PM_{10} and $PM_{2.5}$), if feasible, otherwise,
  - If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 2 or 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85-percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).
  - Use of alternatively fueled equipment with lower NOx emissions that meet the NOx and PM reduction requirements above.
  - Special equipment that cannot meet the above requirements must be approved as exempt by the City after considering reasons for requesting an exemption.
  - Use electric equipment such as aerial lifts, air compressors, cement mortar mixers, concrete/industrial saws, cranes, and welders
  - Diesel engines, whether for off road equipment or on road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
  - Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment.
  - Use of zero emission construction equipment.

- Use low volatile organic compound or VOC (i.e., reactive organic compounds) coatings, that are below current Air District requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 80 percent of all residential and non-residential interior paints and 80 percent of exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 80 percent of coatings applied must meet a "supercompliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of "super-compliant" coatings are contained on the South Coast Air Quality Management District's website.

10.3.3-3: Generator Emissions. All diesel standby emergency generators powered by diesel fuel shall meet US EPA Tier 4 engine standards.

- Future development projects in Moffett Park that include installation of permanent stationary emergency generators shall ensure generators have engines that meet or exceed US EPA Tier 4 standards for particulate matter emissions.

10.3.3.-4: Health Risk Assessment. Future development proposed within 1,000 feet of existing or planned sensitive receptors as defined by the Air District (e.g., residences, schools) shall prepare a site-specific construction and operational health risk assessment (HRA) pursuant to the Air District CEQA Air Quality Guidelines. If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors would be less than the Air District project-level and cumulative thresholds, then no further study or measures are required. If the HRA demonstrates the health risks would exceed Air District project-level thresholds or the project results in a considerable contribution to a significant cumulative health risk impact, additional feasible on- and off-site mitigation shall be analyzed to reduce risks to a less than significant level. Measure to avoid and/or reduce significant construction health risk impacts could include the following:

- Use Tier 4 engines for all off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities.
- Use diesel trucks with 2010 or later compliant model year engines during construction.
- Use renewable diesel during construction.
- Use low-VOC coatings during construction.
- Implement fugitive dust best management practices and if necessary, enhanced measures recommended by the Air District.
- Use portable electrical equipment where commercially available and practicable to complete construction. Construction contractors shall utilize electrical grid power instead of diesel generators when (1) grid power is available at the construction site; (2) when construction of temporary power lines are not necessary in order to provide power to portions of the site distant from existing utility lines; (3) when use of portable extension lines is practicable given construction safety and operational limitations; and (4) when use of electrical grid power does not compromise construction schedules.
- Phase construction appropriately to lower the intensity of emissions at any one location with sensitive receptors.
- Provide enhanced air filtration for sensitive receptors adversely affected by project emissions.

Project Health Risk Impacts

Per Requirement 10.3.3-4 of the MPSP DEIR, project construction and operational health risk impacts were assessed. Health risk impacts were addressed by predicting increased lifetime cancer risk, the increase in annual $PM_{2.5}$ concentrations, and computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operation sources. These sources include on-site construction activity, construction truck hauling, and operation of the project fire pump. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per the Air District guidance,[9] with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

[9] Bay Area Air District, *Appendix E of the 2022 CEQA Guidelines.* April 2023.

The project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. 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(s) that is most affected by the project's construction and operation.

The methodology for computing health risk impacts is contained in Appendix E of the Air District 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.

Emissions Modeling

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 land uses were entered into CalEEMod as described in Table 2.

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Apartments Mid Rise	265	Dwelling Unit	257,477	1.98
Unenclosed Parking with Elevator	217	Parking Spaces	29,929	
City Park	0.43	Acre	-	

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, including equipment quantities, average hours per day, total number of workdays, and schedule, were based on CalEEMod default information for a project of this type and size (included in *Attachment 1*). The earliest possible construction start date was estimated to be January 2027, and the project would be built out over a period of approximately 15 months, or 324 construction workdays.

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 provided demolition and estimated pavement demolition material to be exported, provided soil imported and/or exported to the site, and the provided concrete 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 were developed by CalEEMod using the provided and estimated demolition and soil import/export volumes. The amount of concrete was provided and converted to daily one-way trips, assuming two trips per delivery. These values are shown in the project construction worksheet included in *Attachment 1.*

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., $PM_{2.5}$) DPM poses both 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 worker receptors from construction emissions of DPM and $PM_{2.5}$.[10] This assessment included dispersion modeling to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be estimated.

Modeled Receptors

Receptors for this assessment included locations where sensitive populations and workers would be present for extended periods of time (i.e., chronic exposures). This includes the existing businesses near the project site as shown in Figure 1. There are no sensitive receptors located within 1,000 feet of the project site. Worker receptors are assumed to include adult only receptors. While there are additional receptors within 1,000 feet of the project site, the receptors chosen are adequate to identify maximum impacts from the project.

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 0.06 tons (124 pounds). Fugitive dust emissions ($PM_{2.5}$), which reflect the application of the MPSP DEIR Requirement 10.3.3-1 for dust control, were estimated to be 0.04 tons (82 pounds) from all construction stages. 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 one 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.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at receptors (i.e., workers) in the vicinity of the project construction area. The AERMOD dispersion model is an Air District-recommended model for use in modeling analysis of these types of

[10] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

emission activities for CEQA projects.[11] Emission sources for the construction site were grouped into two categories: DPM exhaust emissions and fugitive $PM_{2.5}$ dust emissions.

Construction Sources

To represent the construction equipment exhaust emissions, an area source was used with an emission release height of 20 feet (6 meters).[12] The release height incorporates both the physical release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise after it leaves the exhaust pipe. Plume rise is due to both the high temperature of the exhaust and the high velocity of the exhaust gas. It should be noted that when modeling an area source, plume rise is not calculated by the AERMOD dispersion model as it would do for a point source (exhaust stack). Therefore, the release height from an area source used to represent emissions from sources with plume rise, such as construction equipment, was based on the height the exhaust plume is expected to achieve, not just the height of the top of the exhaust pipe.

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 plume will tend to rise as it moves 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 meteorological data set (2013-2017) from the Moffett Federal Airfield prepared for use with the AERMOD model by the Air District. The wind rose for Moffett Federal Airfield is shown in Figure 1. Construction emissions were modeled as occurring Monday through Friday between 7:00 a.m. to 10:00 p.m., when the majority of construction is expected to occur according to the applicant. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2027-2028 period were calculated at nearby receptors using the model. Receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing heights of worker receptors on the first and second floors in the nearby businesses.[13]

[11] Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines,* April 2023.
[12] California Air Resource Board, 2007. *Proposed Regulation for In-Use Off-Road Diesel Vehicles, Appendix D: Health Risk Methodology*. April. Web: https://ww3.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm. Note that this study identified release heights at 5 to 10 m, depending on equipment type. There was little difference in levels predicted using the different heights. A height of 6 m was chosen to reflect all equipment.
[13] Bay Area Air District, *Appendix E of the 2022 CEQA Air Quality Guidelines,* April 2023.

Health Risks from Project Operation

Operation of the project would have long-term emissions from stationary sources (i.e., emergency fire pump). While these emissions would not be as intensive at or near the site as construction activity, they would contribute to long-term effects to nearby receptors.

The project plans include one emergency fire pump. The fire pump would provide up to 500-kW powered by a 670-hp diesel-powered U.S. EPA Tier 4 emission standards engine. The fire pump would be located in the fire pump room on the ground floor along the southern side of the building. The location of the modeled fire pump is shown in Figure 1.

Operation of the diesel fire pump would be a source of TAC emissions. The fire pump would be tested periodically and power the building in the event of a power failure. For modeling purposes, it was assumed that the fire pump would be operated for testing and maintenance purposes. During testing periods, the engine would typically run for less than one hour. CARB and the Air District's requirements limit the engine operations to 50 hours each per year for testing and maintenance. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. Additionally, the fire pump would have to meet Air District BACT requirements for IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump sources. The emissions from the operation of the fire pump, with a U.S. EPA Tier 4 emission standards engine, were calculated using CalEEMod.

The diesel engine would be subject to CARB's Stationary Diesel Airborne Toxics Control Measure (ATCM) and require permits from the Air District, since it will be equipped with an engine larger than 50-HP. BACT requirements would apply to the fire pump that would limit DPM emissions. As part of the Air District permit requirements for toxics screening analysis, the engine emissions will have to meet Best Available Control Technology for Toxics (BACT) and pass the toxic risk screening level of less than ten in a million. The risk assessment would be prepared by the Air District. Depending on results, the Air District would set limits for DPM emissions (e.g., more restricted engine operation periods). Sources of air pollutant emissions complying with all applicable Air District regulations generally will not be considered to have a significant air quality health risk impact.

Dispersion Modeling

To estimate potential increased cancer risks and $PM_{2.5}$ impacts from operation of the fire pump, the same previous AERMOD dispersion model was used to compute the maximum annual DPM concentration at off-site receptors. Emissions of DPM were based on PM_{10} exhaust emissions predicted by CalEEMod for operation of the project fire pump. The same receptors, breathing heights, and meteorological data used in the construction dispersion modeling were used for the generator modeling. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the fire pump were based on Air District default parameters for

emergency engines.[14] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that fire pump testing could occur at any time of the day (24 hours per day, 365 days per year).

Computed Cancer and Non-Cancer Health Impacts

To calculate the increased cancer risk from the fire pump, the cancer risks were adjusted for exposure duration to account for construction for the first year, while the operational exposure duration was adjusted for the remaining 29 years of the 30-year exposure period. Table 3 lists the health risks from the project fire pump at the receptor locations discussed above. The emissions and health risk calculations for the proposed fire pump are included in *Attachment 2.*

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

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the Air District CEQA guidance for age sensitivity factors and exposure parameters. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Since there are no sensitive receptors located near the project, only adult exposures were assumed at the nearby worker receptors.

The Project risk impacts are the combination of construction and operation sources. For this project, these sources include the on-site construction activity, project truck trips, and a diesel-powered fire pump. The project impact is computed by adding the cancer risk from one year of construction activities to the 29-year increased cancer risk for the project operational conditions for the fire pump over a 30-year period. The project MEI is identified as the sensitive receptor that is most impacted by the project's construction and operational activities.

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 annual $PM_{2.5}$ concentration and HI values are based on an annual maximum risk for the entirety of the project.

The modeled maximum annual DPM and $PM_{2.5}$ concentrations were identified at nearby worker receptors to find the MEI. Results of this assessment indicated that the project MEI was located on the first floor (5 feet above the ground) of a worker receptor south of the project site. The location of the MEI and nearby receptors are shown in Figure 1. Table 3 summarizes the maximum health risk impacts from project related activities at the MEI. *Attachment 2* to this report includes the emission calculations used for the construction and fire pump modeling and the cancer risk calculations.

Health risk impacts are shown in Table 3. The uncontrolled maximum annual $PM_{2.5}$ concentration from construction activities at the MEI would exceed the single-source significance threshold. However, with the incorporation of the MPSP DEIR Requirement 10.3.3-1 for dust control and

[14] The San Francisco Community Risk Reduction Plan: Technical Support Document, Bay Area Air District, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

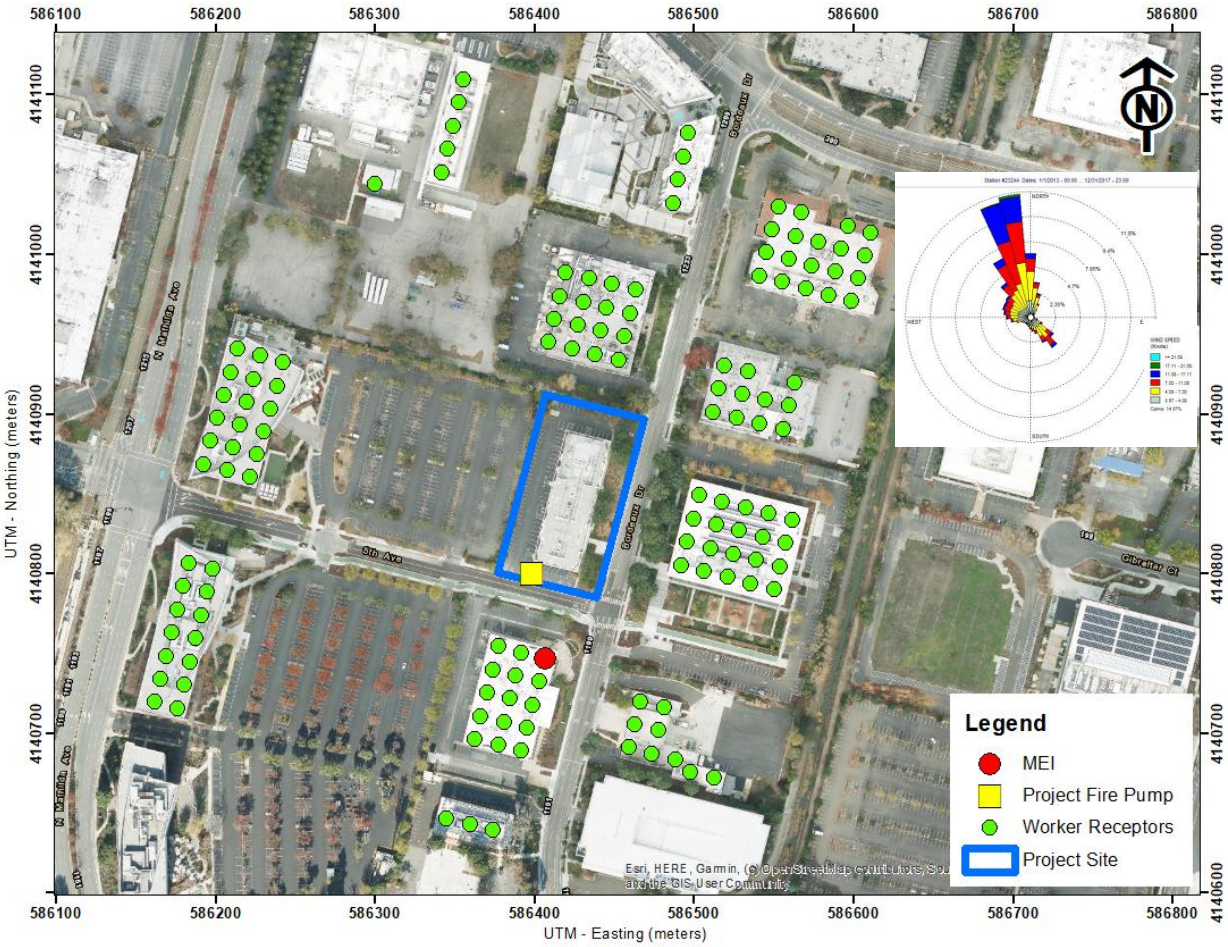
the MPSP DEIR Requirement 10.3.3-4, the controlled annual $PM_{2.5}$ concentration would not exceed the significance threshold. The cancer risks and HI from construction and operational activities would be below the single-source significance thresholds with and without control measures.

Table 3. Health Risk Impacts at the Off-Site MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction (0 – 1)	Uncontrolled	1.03 (adult)	**0.38**	0.04
	Controlled*	0.18 (adult)	0.21	0.01
Project Fire Pump (1 – 30)		0.04	<0.01	<0.01
Project Maximum/Total Impact	Uncontrolled	1.07 (adult)	**0.38**	0.04
	Controlled*	0.22 (adult)	0.21	0.01
Bay Area Air District Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	Uncontrolled	*No*	***Yes***	*No*
	Controlled*	*No*	*No*	*No*

* Construction equipment with Tier 4 Final engines as control measures and basic BMPs.

Figure 1. Location of Project Construction Site, Project Fire Pump, Off-Site Receptors, Maximum TAC Impact (MEI), and Moffett Federal Airfield Wind Rose

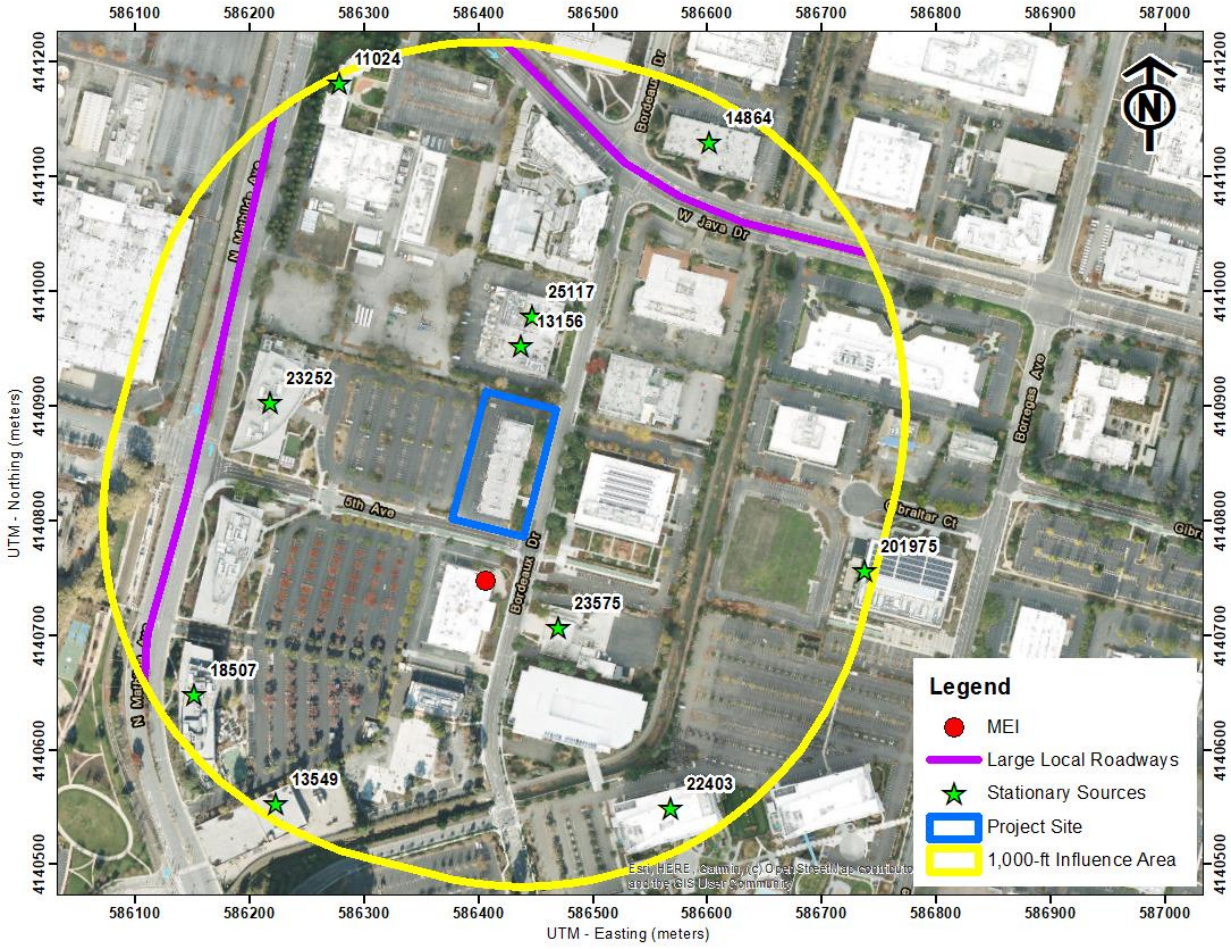


Cumulative Health Risk Impacts

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 the Air District.

A review of the project area using the Air District's geographic information systems (GIS) screening maps identified the existing health risks from nearby roadway and stationary sources at the MEI. Large local roadways and several stationary sources within the 1,000-foot influence area could have cumulative health risk impacts at the MEI. Figure 2 shows the locations of the sources affecting the MEI within the influence area. Health risk impacts from these sources upon the MEI are reported in Table 4. Details of the cumulative screening and health risk calculations are included in *Attachment 3.*

Figure 2. Locations of Project Site, MEI, and Nearby TAC and $PM_{2.5}$ Sources



Nearby Local Roadways

The project site is located in a commercial/office area near intersecting local streets. Cancer risk, $PM_{2.5}$ concentrations, and HI associated with traffic on the nearby roadways were estimated using

the Air District screening values provided via GIS data files (i.e., raster files).[15] Air District raster files provide screening-level cancer risk, $PM_{2.5}$ concentrations, and HI for roadways within the Bay Area and were produced using AERMOD and 20x20-meter emissions grid. The raster file uses EMFAC2021 data for vehicle emissions and fleet mix for roadways and includes Appendix E of the Air District's CEQA Air Quality Guidance for risk assessment assumptions. These estimates represent conservative risks reflective of 2022 conditions and are meant to provide a conservative estimate of future conditions, which do not reflect the increased proportion of zero emission motor vehicles that will result in lower future emissions.[16] These screening values are considered higher than values that would be obtained with refined modeling methods. These raster data are based on region-wide emissions rather than just those that occur within 1,000 feet of the project. More information regarding the assumptions used to develop the screening layers can be found in Sections 6 and 7 in Appendix E of the Air District's 2022 CEQA Guidance.[17] Screening-level cancer risk, $PM_{2.5}$ concentration, and HI for the cumulative roadway impacts at the MEI are listed in Table 4.

Bay Area Air District Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using the Air District's *Permitted Stationary Sources* GIS website,[18] which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including 2023 inventory emissions data and adjustments to account for OEHHA guidance. There were 43 sources were identified using this tool; four "no data" sources that were treated as "generic sources" for worst-case risk screening purposes and 39 emergency diesel generators. However, 33 of the emergency diesel generators are part of the Lockheed Martin Corporation located at 1111 Lockheed Martin Way. The majority of the Lockheed Martin Corporation facilities are located well over 1,000 feet from the project site, and therefore these sources were not included in this cumulative analysis. This leaves 10 stationary sources within the project's influence area. The Air District GIS website provided screening risks and hazards for the generic and diesel generator sources; therefore, a stationary source information request was not submitted. The screening risk and hazard levels provided by the Air District for the stationary source were adjusted for distance using the Air District's *Distance Adjustment Multiplier Tool for Generic Sources and Diesel Internal Combustion Engines.* Health risk impacts from the stationary source upon the MEI are reported in Table 4.

Summary of Cumulative Health Risk Impact at Off-Site MEI

Table 4 reports both the project and cumulative health risk impacts at the receptor most affected by project construction and operation (i.e., the MEI). The project's uncontrolled construction annual $PM_{2.5}$ concentration exceeds its Air District single-source threshold. With the implementation of the MPSP DEIR Requirement 10.3.3-1 for dust control and the MPSP DEIR

[15] Bay Area Air District, *Health Risk Screening and Modeling*, 2022. Web: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/health-risk-screening-and-modeling
[16] Bay Area Air District, *2022 CEQA Air Quality Guidelines Appendix E, Section 9,* April 2023.
[17] Bay Area Air District, *2022 CEQA Air Quality Guidelines Appendix E, Sections 6 and 7*, April 2023.
[18] Bay Area Air District, https://experience.arcgis.com/experience/89ba715c4dc7427f85e2d2fc5b8175ff/page/Stationary-Source-Screening-Tool

Requirement 10.3.3-4, the project's annual $PM_{2.5}$ concentration would be reduced to a level below the single-source threshold and would also not exceed the cumulative-source threshold. The cancer risk and HI, uncontrolled and controlled, do not exceed the single-source or cumulative-source thresholds.

Table 4. Impacts from Combined Sources at Off-Site MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impacts				
Project Maximum/Total Impact	Uncontrolled	1.07 (adult)	**0.38**	0.04
	Controlled	0.22 (adult)	0.21	0.01
Bay Area Air District Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	Uncontrolled	*No*	***Yes***	*No*
	Controlled	*No*	*No*	*No*
Cumulative Impacts				
Cumulative Roadways – Air District Screening GIS Data		<5.26	<0.18	<0.02
City of Sunnyvale - Station 5 - 156-1 (Facility ID #23575, Generator), MEI at 180 feet.		0.00	0.00	0.00
Google LLC (Facility ID #23252, Generator), MEI at 670 feet.		1.04	<0.01	0.00
Google LLC (Facility ID #22403, Generator), MEI at 700 feet.		0.07	0.00	0.00
JSR Micro Inc (Facility ID #11024, Manufacturing), MEI at 950 feet.		1.13	0.08	0.04
Nanosys Inc (Facility ID #25117, Manufacturing), MEI at 700 feet.		0.00	0.00	0.00
OEpic Inc (Facility ID #13156, Manufacturing), MEI at 580 feet.		0.30	0.00	0.00
Pacific Bell (Facility ID #13549, Generator), MEI at 800 feet.		0.30	<0.01	0.00
Star One Credit Union (Facility ID #14864, Generator), MEI at +1,000 feet.		0.00	0.00	0.00
Verizon Wireless (Lockheed) (Facility ID #18507, Generator), MEI at 780 feet.		0.12	0.00	0.00
Google LLC (Facility ID #201975, Generator), MEI at +1,000 feet.		0.00	0.00	0.00
Cumulative Total	Uncontrolled	<9.29	<0.66	<0.10
	Controlled	<8.44	<0.49	<0.07
Bay Area Air District Cumulative Source Threshold		***>100***	***>0.8***	***>10.0***
Exceed Threshold?	Uncontrolled	*No*	*No*	*No*
	Controlled	*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 would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The Air District recommends all projects include a "basic" set of BMPs to manage fugitive dust and consider impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less than significant BMPs are implemented. Requirement 10.3.3-1 of the MPSP DEIR would implement the following Air District basic BMPs to reduce DPM, $PM_{2.5}$, and PM_{10} emissions during construction:

MPSP DEIR Requirement 10.3.3-1: **Air District Construction Management Practices.**

All future construction projects under the Specific Plan shall implement the following Air District basic BMPs to reduce DPM, $PM_{2.5}$, and PM_{10} emissions during construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples of moisture probe.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- 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.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and 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 phone number shall also be visible to ensure compliance with applicable regulations.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour and visible dust extends beyond site boundaries.
- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities in the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
- Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) site accesses to a distance of 100 feet from public paved roads shall be treated with a six to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent

Effectiveness of MPSP DEIR Requirement 10.3.3-1

The measures above are consistent with the Air District-recommended basic BMPs for reducing fugitive dust contained in the Air District 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 Air District single-source threshold.

The Project would need to reduce DPM emissions by 40 percent such that the increased annual $PM_{2.5}$ concentration from construction would be reduced below TAC significance levels. The implementation of MPSP DEIR Requirement 10.3.3-4 would reduce DPM emissions by 82 percent. As a result, the Project's construction annual $PM_{2.5}$ concentration would be reduced below the Air District single-source threshold.

MPSP DEIR Requirement 10.3.3-4: **Health Risk Assessment.**

Measure to avoid and/or reduce significant construction health risk impacts could include the following:

- Use Tier 4 Final engines for all off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities.

Non-CEQA: On-site Health Risk Assessment of TAC Sources - New Project Receptors

Per Requirement 10.3.3-4 of the MPSP DEIR, exposure of future sensitive receptors to substantial TAC concentrations shall be assessed. Therefore, a health risk assessment was conducted to assess the impact that the 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 health risk assessment.[19] The on-site health risk results are listed in Table 5. *Attachment 3* includes the screening information used for TAC source impacts upon the proposed on-site sensitive receptors.

Nearby Local Roadways

The roadway screening impacts were conducted in the same manner as described above for the cumulative analysis. Note that the cumulative levels are made up of impacts from all nearby roadways in the Air District's model. Table 5 includes the health risk screening results for the nearby roadways at the project site.

[19] 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.

Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for the cumulative analysis. Table 5 shows the health risk impacts for the stationary sources on the project sensitive receptors.

Summary of Cumulative Health Risks at the Project Site

Health risk impacts from the existing TAC sources upon the project site are reported in Table 5. The risks from the singular TAC sources are compared against the Air District single-source threshold. The risks from all the sources are then combined and compared against the Air District cumulative-source threshold As shown, the existing sources of TAC emissions do not exceed the Air District single-source or cumulative-source thresholds for cancer risk, annual $PM_{2.5}$ concentration, or HI.

Table 5. Impacts from Combined Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Single-Source Impacts			
City of Sunnyvale - Station 5 - 156-1 (Facility ID #23575, Generator), Project Site at 240 feet.	0.00	0.00	0.00
Google LLC (Facility ID #23252, Generator), Project Site at 500 feet.	1.56	<0.01	0.00
Google LLC (Facility ID #22403, Generator), Project Site at 800 feet.	0.06	0.00	0.00
JSR Micro Inc (Facility ID #11024, Bare Printed Circuit Board Manufacturing), Project Site at +1,000 feet.	1.05	0.07	0.04
Nanosys Inc (Facility ID #25117, Semiconductor and Related Device Manufacturing), Project Site at 200 feet.	0.00	0.00	0.00
OEpic Inc (Facility ID #13156, Semiconductor and Related Device Manufacturing), Project Site at 80 feet.	0.80	0.00	0.00
Pacific Bell (Facility ID #13549, Generator), Project Site at 900 feet.	0.20	<0.01	0.00
Star One Credit Union (Facility ID #14864, Generator), Project Site at 810 feet.	0.00	0.00	0.00
Verizon Wireless (Lockheed) (Facility ID #18507, Generator), Project Site at 790 feet.	0.12	0.00	0.00
Google LLC (Facility ID #201975, Generator), Project Site at 960 feet.	0.00	0.00	0.00
Air District Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	*No*	*No*	*No*
Cumulative-Source Impacts			
Cumulative Roadways – Air District GIS Screening Data	<6.05	<0.27	<0.03
Cumulative Total (Roadways and Stationary Sources)	<9.84	<0.36	<0.07
Air District Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?	*No*	*No*	*No*

Supporting Documentation

Attachment 1 includes the CalEEMod output for project construction and operational criteria air pollutant emissions. Also included are any modeling assumptions.

Attachment 2 includes the construction and operational health risk assessments. AERMOD dispersion modeling files for these assessments, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 3 includes the cumulative health risk screening and calculations from sources affecting the MEI.

Attachment 1: CalEEMod Input Assumptions and Outputs

Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2027-2028	2.07	2.08	0.07	0.06	801.27	
	Total Construction Emissions					
Tons	2.07	2.08	0.07	0.06	801.27	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
2027-2028	12.77	12.83	0.40	0.37		**324**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**		
	Total Construction Emissions					
Pounds	4137.68	4158.28	131.05	121.02	0.00	
Average	12.77	12.83	0.40	0.37	0.00	324.00
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	2.05	0.66	1.36	0.36
	Existing Use Emissions			
Total				
	Net Annual Operational Emissions			
Tons/year	2.05	0.66	1.36	0.36
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**
	Average Daily Emissions			
Pounds Per Day	11.24	3.64	7.44	1.96
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Mobile	1247.24			
Area	3.88			
Energy	217.28			
Water	11.76			
Waste	61.16			
Refrig.	0.31			
Statinoary	12.81			
TOTAL	1554.43	0.00	0.00	0.00
Net GHG Emissions		1554.43		0.00

Number of Days Per Year				
2027-2028	1/1/2027	3/27/2028	452	324
			452	**324**

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/1/2027	1/29/2027	5	20
Site Preparation	1/30/2027	2/13/2027	5	10
Grading	2/14/2027	3/14/2027	5	20
Building Construction	3/15/2027	1/31/2028	5	230
Paving	2/29/2028	3/27/2028	5	20
Architectural Coating	2/1/2028	2/28/2028	5	20
Trenching	2/14/2027	3/14/2027	5	20

Air Quality/Noise Construction Information Data Request

Project Name: 1215 Bordeaux Drive, Sunnyvale DEFAULTS

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size	265 Dwelling Units	1.98 total project acres disturbed	
	257,477 s.f. residential		Pile Driving? Y/N? N
	s.f. retail		
	s.f. office/commercial		Project include on-site GENERATOR OR FIRE PUMP during project OPERATION (not construction)? Y/N? Y_
	18,740 s.f. other, specify: Neighborhood Park		IF YES (if BOTH separate values) -->
	39,929 s.f. parking garage	217 spaces	Kilowatts/Horsepower: _500 kw firepump_
	s.f. parking lot	spaces	Fuel Type: ___Diesel___
Construction Days (i.e, M-F)	Monday to	Friday	Location in project (Plans Desired if Available):
Construction Hours	7am am to	10pm pm	

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	**Start Date:**	**1/1/2027**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**1/29/2027**					
1	Concrete/Industrial Saws	33	0.73	8	20	8	3854	**Demolition Volume**
3	Excavators	36	0.38	8	20	8	6566	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	367	0.4	8	20	8	46976	(*or* total tons to be hauled)
	Tractors/Loaders/Backhoes	84	0.37			0	0	**26,615** square feet *or*
	Other Equipment?							**?** Hauling volume (tons)
								Any pavement demolished and hauled? **Est. 34,000 square feet**
	Site Preparation	**Start Date:**	**1/30/2027**	**Total phase:**	**10**			
		End Date:	**2/13/2027**					
	Graders	148	0.41			0	0	
3	Rubber Tired Dozers	367	0.4	8	10	8	35232	
4	Tractors/Loaders/Backhoes	84	0.37	8	10	8	9946	
	Other Equipment?							
	Grading / Excavation	**Start Date:**	**2/14/2027**	**Total phase:**	**20**			
		End Date:	**3/14/2027**					**Soil Hauling Volume**
1	Excavators	36	0.38	8	20	8	2189	Export volume = **26,000** cubic yards?
1	Graders	148	0.41	8	20	8	9709	Import volume = **5,000** cubic yards?
1	Rubber Tired Dozers	367	0.4	8	20	8	23488	
1	Concrete/Industrial Saws	33	0.73	8	20	8	3854	
3	Tractors/Loaders/Backhoes	84	0.37	8	20	8	14918	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**2/14/2027**	**Total phase:**	**20**			
		End Date:	**3/14/2027**					
1	Tractor/Loader/Backhoe	84	0.37	8	20	8	4973	
1	Excavators	36	0.38	8	20	8	2189	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**3/15/2027**	**Total phase:**	**230**			**Cement Trucks? 470 Total Round-Trips**
		End Date:	**1/31/2028**					
1	Cranes	367	0.29	7	230	7	171352	Electric? (Y/N) ___ Otherwise assumed diesel
3	Forklifts	82	0.2	8	230	8	90528	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	14	0.74	8	230	8	19062	Or temporary line power? (Y/N) ___
3	Tractors/Loaders/Backhoes	84	0.37	7	230	7	150116	
1	Welders	46	0.45	8	230	8	38088	
	Other Equipment?							
	Building - Interior/Architectural Coating	**Start Date:**	**2/1/2028**	**Total phase:**	**20**			
		End Date:	**2/28/2028**					
1	Air Compressors	37	0.48	6	20	6	2131	
	Aerial Lift	46	0.31			0	0	
	Other Equipment?							
	Paving	**Start Date:**	**2/29/2028**	**Total phase:**	**20**			
		Start Date:	**3/27/2028**					
	Cement and Mortar Mixers	10	0.56			0	0	
2	Pavers	81	0.42	8	20	8	10886	
2	Paving Equipment	89	0.36	8	20	8	10253	
2	Rollers	36	0.38	8	20	8	4378	
	Tractors/Loaders/Backhoes	84	0.37			0	0	
	Other Equipment?							
	Additional Phases	**Start Date:**		**Total phase:**				
		Start Date:						
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

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

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

Complete one sheet for each project component

26-002 1215 Bordeaux Drive, Sunnyvale BMPs T4 Const Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	26-002 1215 Bordeaux Drive, Sunnyvale BMPs T4 Const
Construction Start Date	1/1/2027
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	28.2000
Location	1215 Bordeaux Dr, Sunnyvale, CA 94089, USA
County	Santa Clara
City	Sunnyvale
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1799
EDFZ	1
Electric Utility	Silicon Valley Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.37

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	265.000	Dwelling Unit	1.98000	257,477	25,792.0	—	792.000	—

Unenclosed Parking with Elevator	217.000	Space	0.00000	39,929.0	0.00000	—	—	—
City Park	0.43000	Acre	0.43000	0.00000	0.00000	0.00000	—	—

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.	1.63961	11.2629	0.35310	2.03742	2.39052	0.32617	0.49085	0.81702	5,389.12
Mit.	0.93822	4.68931	0.09104	2.03742	2.12846	0.08853	0.49085	0.57937	5,389.12
% Reduced	43%	58%	74%	—	11%	73%	—	29%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	181.515	34.5525	1.17173	7.81090	8.98263	1.07799	3.97386	5.05186	17,772.6
Mit.	181.429	21.0771	0.23845	7.81090	7.91050	0.23845	3.97386	4.07346	17,772.6
% Reduced	< 0.5%	39%	80%	—	12%	78%	—	19%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	10.0799	10.3240	0.32497	1.81372	2.13869	0.30055	0.53108	0.83163	4,408.95
Mit.	10.0062	4.29030	0.07220	1.81372	1.88593	0.07077	0.53108	0.60185	4,408.95
% Reduced	1%	58%	78%	—	12%	76%	—	28%	—

Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.83958	1.88413	0.05931	0.33100	0.39031	0.05485	0.09692	0.15177	729.952
Mit.	1.82613	0.78298	0.01318	0.33100	0.34418	0.01292	0.09692	0.10984	729.952
% Reduced	1%	58%	78%	—	12%	76%	—	28%	—

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)	—	—	—	—	—	—	—	—	—
2027	1.63961	11.2629	0.35310	2.03742	2.39052	0.32617	0.49085	0.81702	5,389.12
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	3.09865	34.5525	1.17173	7.81090	8.98263	1.07799	3.97386	5.05186	17,772.6
2028	181.515	10.8773	0.31676	2.03742	2.35418	0.28628	0.49085	0.77713	5,197.53
Average Daily	—	—	—	—	—	—	—	—	—
2027	1.25620	10.3240	0.32497	1.81372	2.13869	0.30055	0.53108	0.83163	4,408.95
2028	10.0799	1.06852	0.03406	0.14656	0.18062	0.03102	0.03512	0.06614	430.772
Annual	—	—	—	—	—	—	—	—	—
2027	0.22926	1.88413	0.05931	0.33100	0.39031	0.05485	0.09692	0.15177	729.952
2028	1.83958	0.19501	0.00622	0.02675	0.03296	0.00566	0.00641	0.01207	71.3192

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)	—	—	—	—	—	—	—	—	—
2027	0.93822	4.68931	0.09104	2.03742	2.12846	0.08853	0.49085	0.57937	5,389.12

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.91811	21.0771	0.23845	7.81090	7.91050	0.23845	3.97386	4.07346	17,772.6
2028	181.429	4.76672	0.09064	2.03742	2.12806	0.08170	0.49085	0.57255	5,197.53
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.59812	4.29030	0.07220	1.81372	1.88593	0.07077	0.53108	0.60185	4,408.95
2028	10.0062	0.43170	0.00717	0.14656	0.15373	0.00663	0.03512	0.04174	430.772
Annual	—	—	—	—	—	—	—	—	—
2027	0.10916	0.78298	0.01318	0.33100	0.34418	0.01292	0.09692	0.10984	729.952
2028	1.82613	0.07878	0.00131	0.02675	0.02806	0.00121	0.00641	0.00762	71.3192

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.	12.3192	3.51822	0.10528	7.87180	7.97708	0.09962	1.99553	2.09515	10,160.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	10.5409	3.83352	0.09518	7.87180	7.96698	0.09201	1.99553	2.08754	9,610.72
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	11.2353	3.64132	0.10075	7.34402	7.44477	0.09651	1.86221	1.95872	9,388.86
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.05044	0.66454	0.01839	1.34028	1.35867	0.01761	0.33985	0.35747	1,554.43

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	4.18572	2.77217	0.04753	7.87180	7.91933	0.04436	1.99553	2.03989	8,358.09
Area	8.09902	0.15698	0.01012	—	0.01012	0.00764	—	0.00764	47.5054
Energy	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	1,312.38
Water	—	—	—	—	—	—	—	—	71.0355
Waste	—	—	—	—	—	—	—	—	369.399
Refrig.	—	—	—	—	—	—	—	—	1.84405
Stationary	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	12.3192	3.51822	0.10528	7.87180	7.97708	0.09962	1.99553	2.09515	10,160.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	4.00297	3.24445	0.04756	7.87180	7.91936	0.04439	1.99553	2.03991	7,856.07
Area	6.50344	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Energy	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	1,312.38
Water	—	—	—	—	—	—	—	—	71.0355
Waste	—	—	—	—	—	—	—	—	369.399
Refrig.	—	—	—	—	—	—	—	—	1.84405
Stationary	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	10.5409	3.83352	0.09518	7.87180	7.96698	0.09201	1.99553	2.08754	9,610.72
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	3.75982	2.90092	0.04517	7.34402	7.38919	0.04216	1.86221	1.90437	7,533.41
Area	7.29030	0.07742	0.00499	—	0.00499	0.00377	—	0.00377	23.4273
Energy	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	1,312.38
Water	—	—	—	—	—	—	—	—	71.0355
Waste	—	—	—	—	—	—	—	—	369.399
Refrig.	—	—	—	—	—	—	—	—	1.84405
Stationary	0.15071	0.07391	0.00296	0.00000	0.00296	0.00296	0.00000	0.00296	77.3662
Total	11.2353	3.64132	0.10075	7.34402	7.44477	0.09651	1.86221	1.95872	9,388.86

Annual	—	—	—	—	—	—	—	—	—
Mobile	0.68617	0.52942	0.00824	1.34028	1.34853	0.00769	0.33985	0.34755	1,247.24
Area	1.33048	0.01413	0.00091	—	0.00091	0.00069	—	0.00069	3.87866
Energy	0.00629	0.10750	0.00869	—	0.00869	0.00869	—	0.00869	217.279
Water	—	—	—	—	—	—	—	—	11.7607
Waste	—	—	—	—	—	—	—	—	61.1582
Refrig.	—	—	—	—	—	—	—	—	0.30530
Stationary	0.02750	0.01349	0.00054	0.00000	0.00054	0.00054	0.00000	0.00054	12.8089
Total	2.05044	0.66454	0.01839	1.34028	1.35867	0.01761	0.33985	0.35747	1,554.43

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	4.18572	2.77217	0.04753	7.87180	7.91933	0.04436	1.99553	2.03989	8,358.09
Area	8.09902	0.15698	0.01012	—	0.01012	0.00764	—	0.00764	47.5054
Energy	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	1,312.38
Water	—	—	—	—	—	—	—	—	71.0355
Waste	—	—	—	—	—	—	—	—	369.399
Refrig.	—	—	—	—	—	—	—	—	1.84405
Stationary	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	12.3192	3.51822	0.10528	7.87180	7.97708	0.09962	1.99553	2.09515	10,160.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	4.00297	3.24445	0.04756	7.87180	7.91936	0.04439	1.99553	2.03991	7,856.07
Area	6.50344	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Energy	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	1,312.38
Water	—	—	—	—	—	—	—	—	71.0355

Waste	—	—	—	—	—	—	—	—	369.399
Refrig.	—	—	—	—	—	—	—	—	1.84405
Stationary	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	10.5409	3.83352	0.09518	7.87180	7.96698	0.09201	1.99553	2.08754	9,610.72
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	3.75982	2.90092	0.04517	7.34402	7.38919	0.04216	1.86221	1.90437	7,533.41
Area	7.29030	0.07742	0.00499	—	0.00499	0.00377	—	0.00377	23.4273
Energy	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	1,312.38
Water	—	—	—	—	—	—	—	—	71.0355
Waste	—	—	—	—	—	—	—	—	369.399
Refrig.	—	—	—	—	—	—	—	—	1.84405
Stationary	0.15071	0.07391	0.00296	0.00000	0.00296	0.00296	0.00000	0.00296	77.3662
Total	11.2353	3.64132	0.10075	7.34402	7.44477	0.09651	1.86221	1.95872	9,388.86
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.68617	0.52942	0.00824	1.34028	1.34853	0.00769	0.33985	0.34755	1,247.24
Area	1.33048	0.01413	0.00091	—	0.00091	0.00069	—	0.00069	3.87866
Energy	0.00629	0.10750	0.00869	—	0.00869	0.00869	—	0.00869	217.279
Water	—	—	—	—	—	—	—	—	11.7607
Waste	—	—	—	—	—	—	—	—	61.1582
Refrig.	—	—	—	—	—	—	—	—	0.30530
Stationary	0.02750	0.01349	0.00054	0.00000	0.00054	0.00054	0.00000	0.00054	12.8089
Total	2.05044	0.66454	0.01839	1.34028	1.35867	0.01761	0.33985	0.35747	1,554.43

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.21478	19.9005	0.79594	—	0.79594	0.73226	—	0.73226	3,438.66
Demolition	—	—	—	1.33030	1.33030	—	0.20145	0.20145	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12136	1.09044	0.04361	—	0.04361	0.04012	—	0.04012	188.420
Demolition	—	—	—	0.07289	0.07289	—	0.01104	0.01104	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02215	0.19901	0.00796	—	0.00796	0.00732	—	0.00732	31.1950
Demolition	—	—	—	0.01330	0.01330	—	0.00201	0.00201	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04025	0.03700	0.00000	0.12400	0.12400	0.00000	0.02906	0.02906	116.236
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02772	1.67194	0.01680	0.35319	0.36999	0.01680	0.09670	0.11350	1,371.56
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00217	0.00199	0.00000	0.00667	0.00667	0.00000	0.00156	0.00156	6.44689
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00156	0.08980	0.00092	0.01909	0.02001	0.00092	0.00523	0.00615	75.1935

Annual	—	—	—	—	—	—	—	—	—
Worker	0.00040	0.00036	0.00000	0.00122	0.00122	0.00000	0.00029	0.00029	1.06736
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00029	0.01639	0.00017	0.00348	0.00365	0.00017	0.00095	0.00112	12.4491

3.2. Demolition (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36229	4.50525	0.06327	—	0.06327	0.06327	—	0.06327	3,438.66
Demolition	—	—	—	1.33030	1.33030	—	0.20145	0.20145	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01985	0.24686	0.00347	—	0.00347	0.00347	—	0.00347	188.420
Demolition	—	—	—	0.07289	0.07289	—	0.01104	0.01104	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00362	0.04505	0.00063	—	0.00063	0.00063	—	0.00063	31.1950
Demolition	—	—	—	0.01330	0.01330	—	0.00201	0.00201	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04025	0.03700	0.00000	0.12400	0.12400	0.00000	0.02906	0.02906	116.236
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.02772	1.67194	0.01680	0.35319	0.36999	0.01680	0.09670	0.11350	1,371.56
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00217	0.00199	0.00000	0.00667	0.00667	0.00000	0.00156	0.00156	6.44689
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00156	0.08980	0.00092	0.01909	0.02001	0.00092	0.00523	0.00615	75.1935
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00040	0.00036	0.00000	0.00122	0.00122	0.00000	0.00029	0.00029	1.06736
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00029	0.01639	0.00017	0.00348	0.00365	0.00017	0.00095	0.00112	12.4491

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05170	27.9724	1.17173	—	1.17173	1.07799	—	1.07799	5,316.00
Dust From Material Movement	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08361	0.76637	0.03210	—	0.03210	0.02953	—	0.02953	145.644

Dust From Material Movement	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01526	0.13986	0.00586	—	0.00586	0.00539	—	0.00539	24.1130
Dust From Material Movement	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04695	0.04317	0.00000	0.14466	0.14466	0.00000	0.03391	0.03391	135.609
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00127	0.00116	0.00000	0.00389	0.00389	0.00000	0.00091	0.00091	3.76068
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00023	0.00021	0.00000	0.00071	0.00071	0.00000	0.00017	0.00017	0.62262
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Site Preparation (2027) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49800	2.58959	0.09960	—	0.09960	0.09960	—	0.09960	5,316.00
Dust From Material Movement	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01364	0.07095	0.00273	—	0.00273	0.00273	—	0.00273	145.644
Dust From Material Movement	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00249	0.01295	0.00050	—	0.00050	0.00050	—	0.00050	24.1130
Dust From Material Movement	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04695	0.04317	0.00000	0.14466	0.14466	0.00000	0.03391	0.03391	135.609
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00127	0.00116	0.00000	0.00389	0.00389	0.00000	0.00091	0.00091	3.76068
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00023	0.00021	0.00000	0.00071	0.00071	0.00000	0.00017	0.00017	0.62262
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.75201	15.6892	0.62771	—	0.62771	0.57750	—	0.57750	3,215.09
Dust From Material Movement	—	—	—	2.79743	2.79743	—	1.34098	1.34098	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09600	0.85968	0.03440	—	0.03440	0.03164	—	0.03164	176.169
Dust From Material Movement	—	—	—	0.15328	0.15328	—	0.07348	0.07348	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01752	0.15689	0.00628	—	0.00628	0.00577	—	0.00577	29.1668
Dust From Material Movement	—	—	—	0.02797	0.02797	—	0.01341	0.01341	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04695	0.04317	0.00000	0.14466	0.14466	0.00000	0.03391	0.03391	135.609
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.28192	17.0047	0.17086	3.59212	3.76298	0.17086	0.98346	1.15432	13,949.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00253	0.00232	0.00000	0.00778	0.00778	0.00000	0.00182	0.00182	7.52137
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01592	0.91327	0.00936	0.19411	0.20347	0.00936	0.05321	0.06257	764.763
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00046	0.00042	0.00000	0.00142	0.00142	0.00000	0.00033	0.00033	1.24525
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00290	0.16667	0.00171	0.03543	0.03713	0.00171	0.00971	0.01142	126.615

3.6. Grading (2027) - Mitigated

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

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

Off-Road Equipment	0.32514	3.21090	0.05970	—	0.05970	0.05970	—	0.05970	3,215.09
Dust From Material Movement	—	—	—	2.79743	2.79743	—	1.34098	1.34098	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01782	0.17594	0.00327	—	0.00327	0.00327	—	0.00327	176.169
Dust From Material Movement	—	—	—	0.15328	0.15328	—	0.07348	0.07348	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00325	0.03211	0.00060	—	0.00060	0.00060	—	0.00060	29.1668
Dust From Material Movement	—	—	—	0.02797	0.02797	—	0.01341	0.01341	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04695	0.04317	0.00000	0.14466	0.14466	0.00000	0.03391	0.03391	135.609
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.28192	17.0047	0.17086	3.59212	3.76298	0.17086	0.98346	1.15432	13,949.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00253	0.00232	0.00000	0.00778	0.00778	0.00000	0.00182	0.00182	7.52137
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01592	0.91327	0.00936	0.19411	0.20347	0.00936	0.05321	0.06257	764.763

Annual	—	—	—	—	—	—	—	—	—
Worker	0.00046	0.00042	0.00000	0.00142	0.00142	0.00000	0.00033	0.00033	1.24525
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00290	0.16667	0.00171	0.03543	0.03713	0.00171	0.00971	0.01142	126.615

3.7. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02988	9.39093	0.33657	—	0.33657	0.30965	—	0.30965	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02988	9.39093	0.33657	—	0.33657	0.30965	—	0.30965	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58850	5.36625	0.19233	—	0.19233	0.17694	—	0.17694	1,374.46
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10740	0.97934	0.03510	—	0.03510	0.03229	—	0.03229	227.557
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.57522	0.43565	0.00000	1.71588	1.71588	0.00000	0.40220	0.40220	1,739.86

Vendor	0.02829	1.09648	0.01292	0.24572	0.25863	0.01292	0.06789	0.08080	949.068
Hauling	0.00622	0.33985	0.00361	0.07583	0.07944	0.00361	0.02076	0.02437	294.888
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.55692	0.51207	0.00000	1.71588	1.71588	0.00000	0.40220	0.40220	1,608.48
Vendor	0.02675	1.15061	0.01292	0.24572	0.25863	0.01292	0.06789	0.08080	947.952
Hauling	0.00595	0.35896	0.00361	0.07583	0.07944	0.00361	0.02076	0.02437	294.471
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.31301	0.28738	0.00000	0.96274	0.96274	0.00000	0.22539	0.22539	930.355
Vendor	0.01573	0.64484	0.00738	0.13827	0.14565	0.00738	0.03826	0.04564	541.956
Hauling	0.00350	0.20105	0.00206	0.04273	0.04479	0.00206	0.01171	0.01377	168.358
Annual	—	—	—	—	—	—	—	—	—
Worker	0.05712	0.05245	0.00000	0.17570	0.17570	0.00000	0.04113	0.04113	154.031
Vendor	0.00287	0.11768	0.00135	0.02523	0.02658	0.00135	0.00698	0.00833	89.7270
Hauling	0.00064	0.03669	0.00038	0.00780	0.00817	0.00038	0.00214	0.00251	27.8736

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32849	2.81733	0.07451	—	0.07451	0.07200	—	0.07200	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32849	2.81733	0.07451	—	0.07451	0.07200	—	0.07200	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18771	1.60990	0.04258	—	0.04258	0.04115	—	0.04115	1,374.46
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03426	0.29381	0.00777	—	0.00777	0.00751	—	0.00751	227.557
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.57522	0.43565	0.00000	1.71588	1.71588	0.00000	0.40220	0.40220	1,739.86
Vendor	0.02829	1.09648	0.01292	0.24572	0.25863	0.01292	0.06789	0.08080	949.068
Hauling	0.00622	0.33985	0.00361	0.07583	0.07944	0.00361	0.02076	0.02437	294.888
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.55692	0.51207	0.00000	1.71588	1.71588	0.00000	0.40220	0.40220	1,608.48
Vendor	0.02675	1.15061	0.01292	0.24572	0.25863	0.01292	0.06789	0.08080	947.952
Hauling	0.00595	0.35896	0.00361	0.07583	0.07944	0.00361	0.02076	0.02437	294.471
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.31301	0.28738	0.00000	0.96274	0.96274	0.00000	0.22539	0.22539	930.355
Vendor	0.01573	0.64484	0.00738	0.13827	0.14565	0.00738	0.03826	0.04564	541.956
Hauling	0.00350	0.20105	0.00206	0.04273	0.04479	0.00206	0.01171	0.01377	168.358
Annual	—	—	—	—	—	—	—	—	—
Worker	0.05712	0.05245	0.00000	0.17570	0.17570	0.00000	0.04113	0.04113	154.031
Vendor	0.00287	0.11768	0.00135	0.02523	0.02658	0.00135	0.00698	0.00833	89.7270
Hauling	0.00064	0.03669	0.00038	0.00780	0.00817	0.00038	0.00214	0.00251	27.8736

3.9. Building Construction (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99143	8.92495	0.30024	—	0.30024	0.27622	—	0.27622	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06015	0.54144	0.01821	—	0.01821	0.01676	—	0.01676	145.942
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01098	0.09881	0.00332	—	0.00332	0.00306	—	0.00306	24.1623
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.53404	0.50749	0.00000	1.71588	1.71588	0.00000	0.40220	0.40220	1,580.91
Vendor	0.02675	1.09925	0.01292	0.24572	0.25863	0.00646	0.06789	0.07435	923.764
Hauling	0.00586	0.34562	0.00361	0.07583	0.07944	0.00361	0.02076	0.02437	287.172
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.03212	0.02698	0.00000	0.10221	0.10221	0.00000	0.02393	0.02393	97.0627
Vendor	0.00167	0.06539	0.00078	0.01468	0.01546	0.00039	0.00406	0.00445	56.0474
Hauling	0.00037	0.02064	0.00022	0.00454	0.00476	0.00022	0.00124	0.00146	17.4295
Annual	—	—	—	—	—	—	—	—	—

Worker	0.00586	0.00492	0.00000	0.01865	0.01865	0.00000	0.00437	0.00437	16.0698
Vendor	0.00030	0.01193	0.00014	0.00268	0.00282	0.00007	0.00074	0.00081	9.27929
Hauling	0.00007	0.00377	0.00004	0.00083	0.00087	0.00004	0.00023	0.00027	2.88565

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32816	2.81436	0.07412	—	0.07412	0.07164	—	0.07164	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01991	0.17073	0.00450	—	0.00450	0.00435	—	0.00435	145.942
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00363	0.03116	0.00082	—	0.00082	0.00079	—	0.00079	24.1623
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.53404	0.50749	0.00000	1.71588	1.71588	0.00000	0.40220	0.40220	1,580.91
Vendor	0.02675	1.09925	0.01292	0.24572	0.25863	0.00646	0.06789	0.07435	923.764
Hauling	0.00586	0.34562	0.00361	0.07583	0.07944	0.00361	0.02076	0.02437	287.172

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.03212	0.02698	0.00000	0.10221	0.10221	0.00000	0.02393	0.02393	97.0627
Vendor	0.00167	0.06539	0.00078	0.01468	0.01546	0.00039	0.00406	0.00445	56.0474
Hauling	0.00037	0.02064	0.00022	0.00454	0.00476	0.00022	0.00124	0.00146	17.4295
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00586	0.00492	0.00000	0.01865	0.01865	0.00000	0.00437	0.00437	16.0698
Vendor	0.00030	0.01193	0.00014	0.00268	0.00282	0.00007	0.00074	0.00081	9.27929
Hauling	0.00007	0.00377	0.00004	0.00083	0.00087	0.00004	0.00023	0.00027	2.88565

3.11. Paving (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68524	6.62754	0.25554	—	0.25554	0.23510	—	0.23510	1,516.22
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03755	0.36315	0.01400	—	0.01400	0.01288	—	0.01288	83.0803
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00685	0.06628	0.00256	—	0.00256	0.00235	—	0.00235	13.7549
Paving	0.00000	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03859	0.03667	0.00000	0.12400	0.12400	0.00000	0.02906	0.02906	114.244
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00210	0.00176	0.00000	0.00667	0.00667	0.00000	0.00156	0.00156	6.33542
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00032	0.00000	0.00122	0.00122	0.00000	0.00029	0.00029	1.04890
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.12. Paving (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15994	1.93286	0.02813	—	0.02813	0.02813	—	0.02813	1,516.22
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00876	0.10591	0.00154	—	0.00154	0.00154	—	0.00154	83.0803
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00160	0.01933	0.00028	—	0.00028	0.00028	—	0.00028	13.7549
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03859	0.03667	0.00000	0.12400	0.12400	0.00000	0.02906	0.02906	114.244
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00210	0.00176	0.00000	0.00667	0.00667	0.00000	0.00156	0.00156	6.33542
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00032	0.00000	0.00122	0.00122	0.00000	0.00029	0.00029	1.04890
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.13. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10731	0.80814	0.01536	—	0.01536	0.01413	—	0.01413	133.975
Architectural Coatings	181.301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00588	0.04428	0.00084	—	0.00084	0.00077	—	0.00077	7.34111
Architectural Coatings	9.93428	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00107	0.00808	0.00015	—	0.00015	0.00014	—	0.00014	1.21540
Architectural Coatings	1.81301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.10681	0.10150	0.00000	0.34318	0.34318	0.00000	0.08044	0.08044	316.182
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—

Worker	0.00580	0.00487	0.00000	0.01846	0.01846	0.00000	0.00432	0.00432	17.5339
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00106	0.00089	0.00000	0.00337	0.00337	0.00000	0.00079	0.00079	2.90294
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.14. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02114	0.64604	0.00235	—	0.00235	0.00235	—	0.00235	133.975
Architectural Coatings	181.301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00116	0.03540	0.00013	—	0.00013	0.00013	—	0.00013	7.34111
Architectural Coatings	9.93428	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00021	0.00646	0.00002	—	0.00002	0.00002	—	0.00002	1.21540

Architectural Coatings	1.81301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.10681	0.10150	0.00000	0.34318	0.34318	0.00000	0.08044	0.08044	316.182
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00580	0.00487	0.00000	0.01846	0.01846	0.00000	0.00432	0.00432	17.5339
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00106	0.00089	0.00000	0.00337	0.00337	0.00000	0.00079	0.00079	2.90294
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.15. Trenching (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18834	1.80311	0.05125	—	0.05125	0.04715	—	0.04715	433.520

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01032	0.09880	0.00281	—	0.00281	0.00258	—	0.00258	23.7545
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00188	0.01803	0.00051	—	0.00051	0.00047	—	0.00047	3.93283
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01342	0.01233	0.00000	0.04133	0.04133	0.00000	0.00969	0.00969	38.7455
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00072	0.00066	0.00000	0.00222	0.00222	0.00000	0.00052	0.00052	2.14896
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00013	0.00012	0.00000	0.00041	0.00041	0.00000	0.00010	0.00010	0.35579
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.16. Trenching (2027) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04912	0.80602	0.00789	—	0.00789	0.00789	—	0.00789	433.520
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00269	0.04417	0.00043	—	0.00043	0.00043	—	0.00043	23.7545
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00049	0.00806	0.00008	—	0.00008	0.00008	—	0.00008	3.93283
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01342	0.01233	0.00000	0.04133	0.04133	0.00000	0.00969	0.00969	38.7455
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00072	0.00066	0.00000	0.00222	0.00222	0.00000	0.00052	0.00052	2.14896
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00013	0.00012	0.00000	0.00041	0.00041	0.00000	0.00010	0.00010	0.35579
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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	4.18271	2.76964	0.04748	7.86367	7.91115	0.04431	1.99347	2.03778	8,349.55
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00301	0.00253	0.00005	0.00813	0.00818	0.00004	0.00206	0.00211	8.53440
Total	4.18572	2.77217	0.04753	7.87180	7.91933	0.04436	1.99553	2.03989	8,358.09
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	4.00008	3.24149	0.04751	7.86367	7.91118	0.04434	1.99347	2.03781	7,848.05
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00289	0.00296	0.00005	0.00813	0.00818	0.00004	0.00206	0.00211	8.01158
Total	4.00297	3.24445	0.04756	7.87180	7.91936	0.04439	1.99553	2.03991	7,856.07
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.68589	0.52915	0.00824	1.33952	1.34776	0.00769	0.33966	0.34735	1,246.54

Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00027	0.00027	< 0.000005	0.00077	0.00077	< 0.000005	0.00019	0.00020	0.70316
Total	0.68617	0.52942	0.00824	1.34028	1.34853	0.00769	0.33985	0.34755	1,247.24

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	4.18271	2.76964	0.04748	7.86367	7.91115	0.04431	1.99347	2.03778	8,349.55
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00301	0.00253	0.00005	0.00813	0.00818	0.00004	0.00206	0.00211	8.53440
Total	4.18572	2.77217	0.04753	7.87180	7.91933	0.04436	1.99553	2.03989	8,358.09
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	4.00008	3.24149	0.04751	7.86367	7.91118	0.04434	1.99347	2.03781	7,848.05
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00289	0.00296	0.00005	0.00813	0.00818	0.00004	0.00206	0.00211	8.01158
Total	4.00297	3.24445	0.04756	7.87180	7.91936	0.04439	1.99553	2.03991	7,856.07
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.68589	0.52915	0.00824	1.33952	1.34776	0.00769	0.33966	0.34735	1,246.54
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

City Park	0.00027	0.00027	< 0.000005	0.00077	0.00077	< 0.000005	0.00019	0.00020	0.70316
Total	0.68617	0.52942	0.00824	1.34028	1.34853	0.00769	0.33985	0.34755	1,247.24

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	—	—	—	—	—	—	—	—	500.315
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	62.2713
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	562.586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	500.315
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	62.2713
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	562.586
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	82.8329
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	10.3097

City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	93.1426

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	500.315
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	62.2713
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	562.586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	500.315
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	62.2713
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	562.586
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	82.8329
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	10.3097
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	93.1426

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	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00629	0.10750	0.00869	—	0.00869	0.00869	—	0.00869	124.137
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00629	0.10750	0.00869	—	0.00869	0.00869	—	0.00869	124.137

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.03447	0.58907	0.04763	—	0.04763	0.04763	—	0.04763	749.791
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00629	0.10750	0.00869	—	0.00869	0.00869	—	0.00869	124.137
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00629	0.10750	0.00869	—	0.00869	0.00869	—	0.00869	124.137

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	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Consumer Products	5.51001	—	—	—	—	—	—	—	—
Architectural Coatings	0.99343	—	—	—	—	—	—	—	—
Landscape Equipment	1.59559	0.15698	0.01012	—	0.01012	0.00764	—	0.00764	47.5054
Total	8.09902	0.15698	0.01012	—	0.01012	0.00764	—	0.00764	47.5054
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Consumer Products	5.51001	—	—	—	—	—	—	—	—
Architectural Coatings	0.99343	—	—	—	—	—	—	—	—
Total	6.50344	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Consumer Products	1.00558	—	—	—	—	—	—	—	—
Architectural Coatings	0.18130	—	—	—	—	—	—	—	—
Landscape Equipment	0.14360	0.01413	0.00091	—	0.00091	0.00069	—	0.00069	3.87866
Total	1.33048	0.01413	0.00091	—	0.00091	0.00069	—	0.00069	3.87866

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	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Consumer Products	5.51001	—	—	—	—	—	—	—	—
Architectural Coatings	0.99343	—	—	—	—	—	—	—	—
Landscape Equipment	1.59559	0.15698	0.01012	—	0.01012	0.00764	—	0.00764	47.5054
Total	8.09902	0.15698	0.01012	—	0.01012	0.00764	—	0.00764	47.5054
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Consumer Products	5.51001	—	—	—	—	—	—	—	—
Architectural Coatings	0.99343	—	—	—	—	—	—	—	—
Total	6.50344	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Consumer Products	1.00558	—	—	—	—	—	—	—	—
Architectural Coatings	0.18130	—	—	—	—	—	—	—	—
Landscape Equipment	0.14360	0.01413	0.00091	—	0.00091	0.00069	—	0.00069	3.87866
Total	1.33048	0.01413	0.00091	—	0.00091	0.00069	—	0.00069	3.87866

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	—	—	—	—	—	—	—	—	71.0355
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	71.0355
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	71.0355
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	71.0355
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	11.7607
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	11.7607

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)	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	71.0355
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	71.0355
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	71.0355
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	71.0355
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	11.7607
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	11.7607

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	—	—	—	—	—	—	—	—	369.329
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.06973
Total	—	—	—	—	—	—	—	—	369.399
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	369.329
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.06973
Total	—	—	—	—	—	—	—	—	369.399
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	61.1466
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.01154
Total	—	—	—	—	—	—	—	—	61.1582

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	369.329

Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.06973
Total	—	—	—	—	—	—	—	—	369.399
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	369.329
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.06973
Total	—	—	—	—	—	—	—	—	369.399
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	61.1466
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	0.00000
City Park	—	—	—	—	—	—	—	—	0.01154
Total	—	—	—	—	—	—	—	—	61.1582

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	—	—	—	—	—	—	—	—	1.84405

City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	1.84405
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	1.84405
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	1.84405
Annual	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	0.30530
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	0.30530

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)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	1.84405
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	1.84405
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	1.84405
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	1.84405
Annual	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	0.30530
City Park	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	0.30530

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)	—	—	—	—	—	—	—	—	—
Fire Pump	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Fire Pump	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Fire Pump	0.02750	0.01349	0.00054	0.00000	0.00054	0.00054	0.00000	0.00054	12.8089
Total	0.02750	0.01349	0.00054	0.00000	0.00054	0.00054	0.00000	0.00054	12.8089

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)	—	—	—	—	—	—	—	—	—
Fire Pump	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Fire Pump	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—

Fire Pump	0.02750	0.01349	0.00054	0.00000	0.00054	0.00054	0.00000	0.00054	12.8089
Total	0.02750	0.01349	0.00054	0.00000	0.00054	0.00054	0.00000	0.00054	12.8089

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	1/1/2027	1/29/2027	5.00000	20.0000	—
Site Preparation	Site Preparation	1/30/2027	2/13/2027	5.00000	10.00000	—

Grading	Grading	2/14/2027	3/14/2027	5.00000	20.0000	—
Building Construction	Building Construction	3/15/2027	1/31/2028	5.00000	230.000	—
Paving	Paving	2/29/2028	3/27/2028	5.00000	20.0000	—
Architectural Coating	Architectural Coating	2/1/2028	2/28/2028	5.00000	20.0000	—
Trenching	Trenching	2/14/2027	3/14/2027	5.00000	20.0000	—

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	1.000000	8.00000	33.0000	0.73000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000

Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Trenching	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000

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	1.000000	8.00000	33.0000	0.73000
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Tier 4 Final	3.00000	8.00000	36.0000	0.38000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00000	8.00000	84.0000	0.37000
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00000	8.00000	367.000	0.40000
Grading	Graders	Diesel	Tier 4 Final	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Grading	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.000000	8.00000	33.0000	0.73000
Building Construction	Cranes	Diesel	Tier 4 Final	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Tier 4 Final	1.000000	8.00000	46.0000	0.45000

Paving	Pavers	Diesel	Tier 4 Final	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Tier 4 Final	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.000000	6.00000	37.0000	0.48000
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.000000	8.00000	84.0000	0.37000
Trenching	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	11.7000	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40000	HHDT,MHDT
Demolition	Hauling	19.0500	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	11.7000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	17.5000	11.7000	LDA,LDT1,LDT2
Grading	Vendor	—	8.40000	HHDT,MHDT
Grading	Hauling	193.750	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	207.570	11.7000	LDA,LDT1,LDT2
Building Construction	Vendor	34.8729	8.40000	HHDT,MHDT
Building Construction	Hauling	4.09000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	11.7000	LDA,LDT1,LDT2

Paving	Vendor	—	8.40000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	41.5140	11.7000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	Worker	5.00000	11.7000	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40000	HHDT,MHDT
Trenching	Hauling	0.00000	20.0000	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	11.7000	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40000	HHDT,MHDT
Demolition	Hauling	19.0500	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	11.7000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	17.5000	11.7000	LDA,LDT1,LDT2
Grading	Vendor	—	8.40000	HHDT,MHDT
Grading	Hauling	193.750	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	207.570	11.7000	LDA,LDT1,LDT2
Building Construction	Vendor	34.8729	8.40000	HHDT,MHDT

Building Construction	Hauling	4.09000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	11.7000	LDA,LDT1,LDT2
Paving	Vendor	—	8.40000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	41.5140	11.7000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	Worker	5.00000	11.7000	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40000	HHDT,MHDT
Trenching	Hauling	0.00000	20.0000	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	521,391	173,797	0.00000	0.00000	—

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	0.00000	0.00000	0.00000	26,615.0	0.00000
Site Preparation	—	—	15.0000	0.00000	0.00000
Grading	5,000.00	26,000.0	20.0000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	0.00000

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

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Apartments Mid Rise	—	0%
Paving	Unenclosed Parking with Elevator	0.00000	100%
Paving	City Park	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	2.34000	0.00000	0.00000
2028	0.00000	2.34000	0.00000	0.00000

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	1,441.60	1,301.15	1,083.85	500,206	11,149.2	10,063.0	8,382.38	3,868,542
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.33540	0.84280	0.94170	180.493	4.10645	10.3188	11.5297	2,209.85

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,441.60	1,301.15	1,083.85	500,206	11,149.2	10,063.0	8,382.38	3,868,542
Unenclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.33540	0.84280	0.94170	180.493	4.10645	10.3188	11.5297	2,209.85

5.10. Operational Area Sources

5.10.1. Hearths

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

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

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
521,391	173,797	0.00000	0.00000	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	904,034	202.000	0.0000	0.0000	2,333,079
Unenclosed Parking with Elevator	112,520	202.000	0.0000	0.0000	0.00000
City Park	0.00000	202.000	0.0000	0.0000	0.00000

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	904,034	202.000	0.0000	0.0000	2,333,079
Unenclosed Parking with Elevator	112,520	202.000	0.0000	0.0000	0.00000
City Park	0.00000	202.000	0.0000	0.0000	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	9,610,596	337,000

Unenclosed Parking with Elevator	0.00000	0.00000
City Park	0.00000	0.00000

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	9,610,596	337,000
Unenclosed Parking with Elevator	0.00000	0.00000
City Park	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	195.872	0.00000
Unenclosed Parking with Elevator	0.00000	0.00000
City Park	0.03698	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	195.872	0.00000
Unenclosed Parking with Elevator	0.00000	0.00000
City Park	0.03698	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.14.2. Mitigated

Land Use	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	2,088.00	0.00225	2.50000	2.50000	10.00000
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.000000	0.00000	50.0000	670.500	0.73000

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.65000	annual days of extreme heat
Extreme Precipitation	3.10000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.1800	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	15.0467
AQ-PM	19.4275
AQ-DPM	28.9981
Drinking Water	39.0408
Lead Risk Housing	50.5860
Pesticides	0.00000
Toxic Releases	30.3201
Traffic	94.1250
Effect Indicators	—
CleanUp Sites	99.3841
Groundwater	94.1723
Haz Waste Facilities/Generators	93.2098
Impaired Water Bodies	91.8732
Solid Waste	99.9542
Sensitive Population	—
Asthma	37.9611
Cardio-vascular	40.0050
Low Birth Weights	98.8453
Socioeconomic Factor Indicators	—
Education	73.4244
Housing	23.8023
Linguistic	—

Poverty	27.8518
Unemployment	36.4394

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	65.64865905
Employed	58.03926601
Median HI	67.43231105
Education	—
Bachelor's or higher	46.42627999
High school enrollment	100
Preschool enrollment	71.06377518
Transportation	—
Auto Access	50.77633774
Active commuting	35.32657513
Social	—
2-parent households	66.12344412
Voting	58.42422687
Neighborhood	—
Alcohol availability	48.03028359
Park access	58.14192224
Retail density	62.49197998
Supermarket access	14.28204799
Tree canopy	39.85628128
Housing	—
Homeownership	46.75991274

Housing habitability	62.22250738
Low-inc homeowner severe housing cost burden	75.25984858
Low-inc renter severe housing cost burden	47.02938535
Uncrowded housing	42.73065572
Health Outcomes	—
Insured adults	53.9715129
Arthritis	0.0
Asthma ER Admissions	20.1
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	80.1
Cognitively Disabled	95.5
Physically Disabled	78.7
Heart Attack ER Admissions	65.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	96.4
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	3.9
Children	55.0
Elderly	87.4
English Speaking	31.8
Foreign-born	65.1
Outdoor Workers	23.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	21.5
Traffic Density	88.2
Traffic Access	46.8
Other Indices	—
Hardship	40.7
Other Decision Support	—
2016 Voting	69.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	67.0000
Healthy Places Index Score for Project Location (b)	64.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Sunnyvale default clean energy provider is Silicon Valley Clean Energy. Silicon Valley Clean Energy 2024 power content label = 202 lb/MWh. for GreenStart.
Land Use	Provided lot acreage, number of units and parking, square footages, and city park square footage from provided plans.
Construction: Construction Phases	Defaults - added trenching. Reviewed and confirmed by applicant.
Construction: Off-Road Equipment	Defaults - added trenching. Reviewed and confirmed by applicant with slight change.
Construction: Trips and VMT	Demolition = Est. 34,000-sf of pavement demo'ed and hauled (3.7 trips/day) added to 26,615-sf of building demo (15.35 trips/day) totaling 19.05 trips/day. Building Construction = 470 concrete truck round trips (4.09 trips/day).
Construction: On-Road Fugitive Dust	Air District recommended BMPs = 15 mph. Required by Moffett Park SP.
Operations: Hearths	No hearths.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.
Operations: Generators + Pumps EF	Fire pump greater than 50-hp required BACT Tier 4. NOx = 0.5 g/bhp-hr, PMs = 0.02 g/bhp-hp

8.2. Project Characteristics

8.2.1. Project Details

Model Parameter	Default Value	New Value
Electric Utility	Pacific Gas & Electric Company	Silicon Valley Clean Energy

8.2.2. Utility Information

Model Parameter	Units	Default Value	New Value
CO2	lb/MWh	2.34000	202.000

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	6.97368	1.98000
Building Area	sq. ft	254,400	257,477
Landscape Area	sq. ft	—	25,792.0
Lot Area	acre	1.95300	0.00000
Building Area	sq. ft	86,800.0	39,929.0
Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	End Date	2/3/2027	2/13/2027
Site Preparation	Site Preparation	Work Days per Phase	3.00000	10.00000
Grading	Grading	Start Date	2/4/2027	2/14/2027
Grading	Grading	End Date	2/12/2027	3/14/2027
Grading	Grading	Work Days per Phase	6.00000	20.0000
Building Construction	Building Construction	Start Date	2/13/2027	3/15/2027
Building Construction	Building Construction	End Date	12/18/2027	1/31/2028
Building Construction	Building Construction	Work Days per Phase	220.000	230.000
Paving	Paving	Start Date	12/19/2027	2/29/2028
Paving	Paving	End Date	1/2/2028	3/27/2028

Paving	Paving	Work Days per Phase	10.00000	20.0000
Architectural Coating	Architectural Coating	Start Date	1/3/2028	2/1/2028
Architectural Coating	Architectural Coating	End Date	1/17/2028	2/28/2028
Architectural Coating	Architectural Coating	Work Days per Phase	10.00000	20.0000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Demolition	Rubber Tired Dozers	Number per Day	1.000000	2.00000
Demolition	Excavators	Number per Day	2.00000	3.00000
Site Preparation	Tractors/Loaders/Backhoes	Number per Day	1.000000	4.00000
Site Preparation	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Grading	Tractors/Loaders/Backhoes	Number per Day	2.00000	3.00000
Grading	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Building Construction	Cranes	Hours Per Day	8.00000	7.00000
Building Construction	Forklifts	Number per Day	2.00000	3.00000
Building Construction	Forklifts	Hours Per Day	7.00000	8.00000
Building Construction	Tractors/Loaders/Backhoes	Number per Day	1.000000	3.00000
Building Construction	Tractors/Loaders/Backhoes	Hours Per Day	6.00000	7.00000
Building Construction	Welders	Number per Day	3.00000	1.000000
Paving	Pavers	Number per Day	1.000000	2.00000
Paving	Paving Equipment	Number per Day	1.000000	2.00000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Demolition	Hauling	One-Way Trips per Day	15.3500	19.0500
Building Construction	Hauling	One-Way Trips per Day	0.00000	4.09000

8.4.7. On-Road Fugitive Dust

Phase Name	Model Parameter	Units	Default Value	New Value
Demolition	Mean Vehicle Speed	mph	40.0000	15.0000
Site Preparation	Mean Vehicle Speed	mph	40.0000	15.0000
Grading	Mean Vehicle Speed	mph	40.0000	15.0000
Building Construction	Mean Vehicle Speed	mph	40.0000	15.0000
Paving	Mean Vehicle Speed	mph	40.0000	15.0000
Architectural Coating	Mean Vehicle Speed	mph	40.0000	15.0000
Trenching	Mean Vehicle Speed	mph	40.0000	15.0000

8.5. Operations

8.5.2. Area Sources

8.5.2.1. Hearths

Land Use	Model Parameter	Default Value	New Value
Apartments Mid Rise	Gas Fireplaces	135	0
Apartments Mid Rise	No Fireplaces	130	0
Apartments Mid Rise	Hours/Day	4	0
Apartments Mid Rise	Days/Year	9	0

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Apartments Mid Rise	Treated by Septic Tank	%	10.3300	0.00000
Apartments Mid Rise	Treated by Aerobic Processes	%	87.4600	100.0000
Apartments Mid Rise	Treated by Facultative Lagoons	%	2.21000	0.00000
Unenclosed Parking with Elevator	Treated by Septic Tank	%	10.3300	0.00000
Unenclosed Parking with Elevator	Treated by Aerobic Processes	%	87.4600	100.0000

Unenclosed Parking with Elevator	Treated by Facultative Lagoons	%	2.21000	0.00000
City Park	Treated by Septic Tank	%	10.3300	0.00000
City Park	Treated by Aerobic Processes	%	87.4600	100.0000
City Park	Treated by Facultative Lagoons	%	2.21000	0.00000

8.5.8. Stationary Sources

8.5.8.2. Generators + Pumps EF

Equipment Type	Model Parameter	Default Value	New Value
Fire Pump	NOx	2.85000	0.50000
Fire Pump	PM10E	0.15000	0.02000
Fire Pump	PM2.5E	0.15000	0.02000

26-002 1215 Bordeaux Drive, Sunnyvale BMPs T4 Const HRA Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	26-002 1215 Bordeaux Drive, Sunnyvale BMPs T4 Const HRA
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70000
Precipitation (days)	28.2000
Location	1215 Bordeaux Dr, Sunnyvale, CA 94089, USA
County	Santa Clara
City	Sunnyvale
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1799
EDFZ	1
Electric Utility	Silicon Valley Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.37

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	265.000	Dwelling Unit	1.98000	257,477	25,792.0	—	792.000	—

Unenclosed Parking with Elevator	217.000	Space	0.00000	39,929.0	0.00000	—	—	—
City Park	0.43000	Acre	0.43000	0.00000	0.00000	0.00000	—	—

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.	1.57584	10.0288	0.33829	0.17970	0.51799	0.31137	0.04350	0.35486	2,756.85
Mit.	0.87445	3.45521	0.07623	0.17970	0.25593	0.07372	0.04350	0.11722	2,756.85
% Reduced	45%	66%	77%	—	51%	76%	—	67%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	181.505	27.9867	1.17173	7.67860	8.85033	1.07799	3.94285	5.02085	5,330.69
Mit.	181.419	7.56777	0.09960	7.67860	7.77820	0.09960	3.94285	4.04245	5,330.69
% Reduced	< 0.5%	73%	91%	—	12%	91%	—	19%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	10.0753	8.77165	0.30674	0.54951	0.85625	0.28232	0.22020	0.50252	2,167.63
Mit.	10.0016	2.73793	0.05397	0.54951	0.60349	0.05254	0.22020	0.27274	2,167.63
% Reduced	1%	69%	82%	—	30%	81%	—	46%	—

Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	1.83874	1.60083	0.05598	0.10029	0.15627	0.05152	0.04019	0.09171	358.875
Mit.	1.82529	0.49967	0.00985	0.10029	0.11014	0.00959	0.04019	0.04977	358.875
% Reduced	1%	69%	82%	—	30%	81%	—	46%	—

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)	—	—	—	—	—	—	—	—	—
2027	1.57584	10.0288	0.33829	0.17970	0.51799	0.31137	0.04350	0.35486	2,756.85
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	3.09452	27.9867	1.17173	7.67860	8.85033	1.07799	3.94285	5.02085	5,330.69
2028	181.505	9.59652	0.30196	0.17970	0.48166	0.27717	0.04350	0.32066	2,741.20
Average Daily	—	—	—	—	—	—	—	—	—
2027	1.20939	8.77165	0.30674	0.54951	0.85625	0.28232	0.22020	0.50252	2,167.63
2028	10.0753	0.99031	0.03316	0.01286	0.04602	0.03047	0.00309	0.03356	259.318
Annual	—	—	—	—	—	—	—	—	—
2027	0.22071	1.60083	0.05598	0.10029	0.15627	0.05152	0.04019	0.09171	358.875
2028	1.83874	0.18073	0.00605	0.00235	0.00840	0.00556	0.00056	0.00613	42.9331

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)	—	—	—	—	—	—	—	—	—
2027	0.87445	3.45521	0.07623	0.17970	0.25593	0.07372	0.04350	0.11722	2,756.85

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2027	0.85434	7.56777	0.09960	7.67860	7.77820	0.09960	3.94285	4.04245	5,330.69
2028	181.419	3.48593	0.07584	0.17970	0.25553	0.07259	0.04350	0.11608	2,741.20
Average Daily	—	—	—	—	—	—	—	—	—
2027	0.55131	2.73793	0.05397	0.54951	0.60349	0.05254	0.22020	0.27274	2,167.63
2028	10.0016	0.35348	0.00627	0.01286	0.01913	0.00607	0.00309	0.00917	259.318
Annual	—	—	—	—	—	—	—	—	—
2027	0.10061	0.49967	0.00985	0.10029	0.11014	0.00959	0.04019	0.04977	358.875
2028	1.82529	0.06451	0.00114	0.00235	0.00349	0.00111	0.00056	0.00167	42.9331

3. Construction Emissions Details

3.1. Demolition (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.21478	19.9005	0.79594	—	0.79594	0.73226	—	0.73226	3,438.66
Demolition	—	—	—	1.33030	1.33030	—	0.20145	0.20145	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12136	1.09044	0.04361	—	0.04361	0.04012	—	0.04012	188.420
Demolition	—	—	—	0.07289	0.07289	—	0.01104	0.01104	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02215	0.19901	0.00796	—	0.00796	0.00732	—	0.00732	31.1950
Demolition	—	—	—	0.01330	0.01330	—	0.00201	0.00201	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03671	0.01224	0.00000	0.01060	0.01060	0.00000	0.00248	0.00248	12.5898
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01176	0.34732	0.00084	0.01766	0.01850	0.00084	0.00483	0.00567	99.9188
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00198	0.00063	0.00000	0.00057	0.00057	0.00000	0.00013	0.00013	0.69423
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00069	0.01853	0.00005	0.00095	0.00100	0.00005	0.00026	0.00031	5.46032
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00036	0.00012	0.00000	0.00010	0.00010	0.00000	0.00002	0.00002	0.11494
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00013	0.00338	0.00001	0.00017	0.00018	0.00001	0.00005	0.00006	0.90402

3.2. Demolition (2027) - Mitigated

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

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

Off-Road Equipment	0.36229	4.50525	0.06327	—	0.06327	0.06327	—	0.06327	3,438.66
Demolition	—	—	—	1.33030	1.33030	—	0.20145	0.20145	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01985	0.24686	0.00347	—	0.00347	0.00347	—	0.00347	188.420
Demolition	—	—	—	0.07289	0.07289	—	0.01104	0.01104	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00362	0.04505	0.00063	—	0.00063	0.00063	—	0.00063	31.1950
Demolition	—	—	—	0.01330	0.01330	—	0.00201	0.00201	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03671	0.01224	0.00000	0.01060	0.01060	0.00000	0.00248	0.00248	12.5898
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01176	0.34732	0.00084	0.01766	0.01850	0.00084	0.00483	0.00567	99.9188
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00198	0.00063	0.00000	0.00057	0.00057	0.00000	0.00013	0.00013	0.69423
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00069	0.01853	0.00005	0.00095	0.00100	0.00005	0.00026	0.00031	5.46032
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00036	0.00012	0.00000	0.00010	0.00010	0.00000	0.00002	0.00002	0.11494
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00013	0.00338	0.00001	0.00017	0.00018	0.00001	0.00005	0.00006	0.90402

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05170	27.9724	1.17173	—	1.17173	1.07799	—	1.07799	5,316.00
Dust From Material Movement	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08361	0.76637	0.03210	—	0.03210	0.02953	—	0.02953	145.644
Dust From Material Movement	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01526	0.13986	0.00586	—	0.00586	0.00539	—	0.00539	24.1130
Dust From Material Movement	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Worker	0.04282	0.01427	0.00000	0.01236	0.01236	0.00000	0.00290	0.00290	14.6881
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00115	0.00037	0.00000	0.00033	0.00033	0.00000	0.00008	0.00008	0.40497
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00021	0.00007	0.00000	0.00006	0.00006	0.00000	0.00001	0.00001	0.06705
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Site Preparation (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49800	2.58959	0.09960	—	0.09960	0.09960	—	0.09960	5,316.00
Dust From Material Movement	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01364	0.07095	0.00273	—	0.00273	0.00273	—	0.00273	145.644

Dust From Material Movement	—	—	—	0.21003	0.21003	—	0.10794	0.10794	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00249	0.01295	0.00050	—	0.00050	0.00050	—	0.00050	24.1130
Dust From Material Movement	—	—	—	0.03833	0.03833	—	0.01970	0.01970	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04282	0.01427	0.00000	0.01236	0.01236	0.00000	0.00290	0.00290	14.6881
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00115	0.00037	0.00000	0.00033	0.00033	0.00000	0.00008	0.00008	0.40497
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00021	0.00007	0.00000	0.00006	0.00006	0.00000	0.00001	0.00001	0.06705
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Grading (2027) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.75201	15.6892	0.62771	—	0.62771	0.57750	—	0.57750	3,215.09
Dust From Material Movement	—	—	—	2.79743	2.79743	—	1.34098	1.34098	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09600	0.85968	0.03440	—	0.03440	0.03164	—	0.03164	176.169
Dust From Material Movement	—	—	—	0.15328	0.15328	—	0.07348	0.07348	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01752	0.15689	0.00628	—	0.00628	0.00577	—	0.00577	29.1668
Dust From Material Movement	—	—	—	0.02797	0.02797	—	0.01341	0.01341	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04282	0.01427	0.00000	0.01236	0.01236	0.00000	0.00290	0.00290	14.6881
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.11960	3.53249	0.00854	0.17961	0.18815	0.00854	0.04917	0.05772	1,016.23

Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00230	0.00074	0.00000	0.00067	0.00067	0.00000	0.00016	0.00016	0.80993
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00702	0.18841	0.00047	0.00971	0.01017	0.00047	0.00266	0.00313	55.5347
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00042	0.00014	0.00000	0.00012	0.00012	0.00000	0.00003	0.00003	0.13409
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00128	0.03439	0.00009	0.00177	0.00186	0.00009	0.00049	0.00057	9.19441

3.6. Grading (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32514	3.21090	0.05970	—	0.05970	0.05970	—	0.05970	3,215.09
Dust From Material Movement	—	—	—	2.79743	2.79743	—	1.34098	1.34098	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01782	0.17594	0.00327	—	0.00327	0.00327	—	0.00327	176.169
Dust From Material Movement	—	—	—	0.15328	0.15328	—	0.07348	0.07348	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00325	0.03211	0.00060	—	0.00060	0.00060	—	0.00060	29.1668
Dust From Material Movement	—	—	—	0.02797	0.02797	—	0.01341	0.01341	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04282	0.01427	0.00000	0.01236	0.01236	0.00000	0.00290	0.00290	14.6881
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.11960	3.53249	0.00854	0.17961	0.18815	0.00854	0.04917	0.05772	1,016.23
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00230	0.00074	0.00000	0.00067	0.00067	0.00000	0.00016	0.00016	0.80993
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00702	0.18841	0.00047	0.00971	0.01017	0.00047	0.00266	0.00313	55.5347
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00042	0.00014	0.00000	0.00012	0.00012	0.00000	0.00003	0.00003	0.13409
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00128	0.03439	0.00009	0.00177	0.00186	0.00009	0.00049	0.00057	9.19441

3.7. Building Construction (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02988	9.39093	0.33657	—	0.33657	0.30965	—	0.30965	2,405.30

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02988	9.39093	0.33657	—	0.33657	0.30965	—	0.30965	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58850	5.36625	0.19233	—	0.19233	0.17694	—	0.17694	1,374.46
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10740	0.97934	0.03510	—	0.03510	0.03229	—	0.03229	227.557
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.52626	0.14186	0.00000	0.14666	0.14666	0.00000	0.03438	0.03438	184.182
Vendor	0.01691	0.42515	0.00154	0.02925	0.03079	0.00154	0.00808	0.00962	146.006
Hauling	0.00280	0.07087	0.00018	0.00379	0.00397	0.00018	0.00104	0.00122	21.3607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.50795	0.16932	0.00000	0.14666	0.14666	0.00000	0.03438	0.03438	174.217
Vendor	0.01538	0.44514	0.00154	0.02925	0.03079	0.00154	0.00808	0.00962	146.601
Hauling	0.00252	0.07457	0.00018	0.00379	0.00397	0.00018	0.00104	0.00122	21.4524
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.28503	0.09152	0.00000	0.08229	0.08229	0.00000	0.01926	0.01926	100.184
Vendor	0.00923	0.24822	0.00088	0.01646	0.01734	0.00088	0.00455	0.00543	83.6340
Hauling	0.00155	0.04148	0.00010	0.00214	0.00224	0.00010	0.00059	0.00069	12.2256
Annual	—	—	—	—	—	—	—	—	—
Worker	0.05202	0.01670	0.00000	0.01502	0.01502	0.00000	0.00352	0.00352	16.5867

Vendor	0.00168	0.04530	0.00016	0.00300	0.00316	0.00016	0.00083	0.00099	13.8466
Hauling	0.00028	0.00757	0.00002	0.00039	0.00041	0.00002	0.00011	0.00013	2.02409

3.8. Building Construction (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32849	2.81733	0.07451	—	0.07451	0.07200	—	0.07200	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32849	2.81733	0.07451	—	0.07451	0.07200	—	0.07200	2,405.30
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18771	1.60990	0.04258	—	0.04258	0.04115	—	0.04115	1,374.46
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03426	0.29381	0.00777	—	0.00777	0.00751	—	0.00751	227.557
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.52626	0.14186	0.00000	0.14666	0.14666	0.00000	0.03438	0.03438	184.182
Vendor	0.01691	0.42515	0.00154	0.02925	0.03079	0.00154	0.00808	0.00962	146.006
Hauling	0.00280	0.07087	0.00018	0.00379	0.00397	0.00018	0.00104	0.00122	21.3607

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.50795	0.16932	0.00000	0.14666	0.14666	0.00000	0.03438	0.03438	174.217
Vendor	0.01538	0.44514	0.00154	0.02925	0.03079	0.00154	0.00808	0.00962	146.601
Hauling	0.00252	0.07457	0.00018	0.00379	0.00397	0.00018	0.00104	0.00122	21.4524
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.28503	0.09152	0.00000	0.08229	0.08229	0.00000	0.01926	0.01926	100.184
Vendor	0.00923	0.24822	0.00088	0.01646	0.01734	0.00088	0.00455	0.00543	83.6340
Hauling	0.00155	0.04148	0.00010	0.00214	0.00224	0.00010	0.00059	0.00069	12.2256
Annual	—	—	—	—	—	—	—	—	—
Worker	0.05202	0.01670	0.00000	0.01502	0.01502	0.00000	0.00352	0.00352	16.5867
Vendor	0.00168	0.04530	0.00016	0.00300	0.00316	0.00016	0.00083	0.00099	13.8466
Hauling	0.00028	0.00757	0.00002	0.00039	0.00041	0.00002	0.00011	0.00013	2.02409

3.9. Building Construction (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99143	8.92495	0.30024	—	0.30024	0.27622	—	0.27622	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06015	0.54144	0.01821	—	0.01821	0.01676	—	0.01676	145.942
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01098	0.09881	0.00332	—	0.00332	0.00306	—	0.00306	24.1623
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.48507	0.16474	0.00000	0.14666	0.14666	0.00000	0.03438	0.03438	171.191
Vendor	0.01538	0.43361	0.00154	0.02925	0.03079	0.00077	0.00808	0.00885	143.326
Hauling	0.00243	0.07322	0.00018	0.00379	0.00397	0.00018	0.00104	0.00122	20.9980
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02915	0.00916	0.00000	0.00874	0.00874	0.00000	0.00205	0.00205	10.4512
Vendor	0.00098	0.02570	0.00009	0.00175	0.00184	0.00005	0.00048	0.00053	8.66364
Hauling	0.00016	0.00433	0.00001	0.00023	0.00024	0.00001	0.00006	0.00007	1.27021
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00532	0.00167	0.00000	0.00159	0.00159	0.00000	0.00037	0.00037	1.73031
Vendor	0.00018	0.00469	0.00002	0.00032	0.00034	0.00001	0.00009	0.00010	1.43436
Hauling	0.00003	0.00079	< 0.000005	0.00004	0.00004	< 0.000005	0.00001	0.00001	0.21030

3.10. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32816	2.81436	0.07412	—	0.07412	0.07164	—	0.07164	2,405.68

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01991	0.17073	0.00450	—	0.00450	0.00435	—	0.00435	145.942
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00363	0.03116	0.00082	—	0.00082	0.00079	—	0.00079	24.1623
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.48507	0.16474	0.00000	0.14666	0.14666	0.00000	0.03438	0.03438	171.191
Vendor	0.01538	0.43361	0.00154	0.02925	0.03079	0.00077	0.00808	0.00885	143.326
Hauling	0.00243	0.07322	0.00018	0.00379	0.00397	0.00018	0.00104	0.00122	20.9980
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02915	0.00916	0.00000	0.00874	0.00874	0.00000	0.00205	0.00205	10.4512
Vendor	0.00098	0.02570	0.00009	0.00175	0.00184	0.00005	0.00048	0.00053	8.66364
Hauling	0.00016	0.00433	0.00001	0.00023	0.00024	0.00001	0.00006	0.00007	1.27021
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00532	0.00167	0.00000	0.00159	0.00159	0.00000	0.00037	0.00037	1.73031
Vendor	0.00018	0.00469	0.00002	0.00032	0.00034	0.00001	0.00009	0.00010	1.43436
Hauling	0.00003	0.00079	< 0.000005	0.00004	0.00004	< 0.000005	0.00001	0.00001	0.21030

3.11. Paving (2028) - Unmitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68524	6.62754	0.25554	—	0.25554	0.23510	—	0.23510	1,516.22
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03755	0.36315	0.01400	—	0.01400	0.01288	—	0.01288	83.0803
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00685	0.06628	0.00256	—	0.00256	0.00235	—	0.00235	13.7549
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03505	0.01190	0.00000	0.01060	0.01060	0.00000	0.00248	0.00248	12.3711
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00190	0.00060	0.00000	0.00057	0.00057	0.00000	0.00013	0.00013	0.68216
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—
Worker	0.00035	0.00011	0.00000	0.00010	0.00010	0.00000	0.00002	0.00002	0.11294
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.12. Paving (2028) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15994	1.93286	0.02813	—	0.02813	0.02813	—	0.02813	1,516.22
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00876	0.10591	0.00154	—	0.00154	0.00154	—	0.00154	83.0803
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00160	0.01933	0.00028	—	0.00028	0.00028	—	0.00028	13.7549
Paving	0.00000	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03505	0.01190	0.00000	0.01060	0.01060	0.00000	0.00248	0.00248	12.3711
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00190	0.00060	0.00000	0.00057	0.00057	0.00000	0.00013	0.00013	0.68216
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00035	0.00011	0.00000	0.00010	0.00010	0.00000	0.00002	0.00002	0.11294
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.13. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10731	0.80814	0.01536	—	0.01536	0.01413	—	0.01413	133.975
Architectural Coatings	181.301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00588	0.04428	0.00084	—	0.00084	0.00077	—	0.00077	7.34111

Architectural Coatings	9.93428	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00107	0.00808	0.00015	—	0.00015	0.00014	—	0.00014	1.21540
Architectural Coatings	1.81301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.09701	0.03295	0.00000	0.02933	0.02933	0.00000	0.00688	0.00688	34.2382
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00527	0.00165	0.00000	0.00158	0.00158	0.00000	0.00037	0.00037	1.88796
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00096	0.00030	0.00000	0.00029	0.00029	0.00000	0.00007	0.00007	0.31257
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.14. Architectural Coating (2028) - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02114	0.64604	0.00235	—	0.00235	0.00235	—	0.00235	133.975
Architectural Coatings	181.301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00116	0.03540	0.00013	—	0.00013	0.00013	—	0.00013	7.34111
Architectural Coatings	9.93428	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00021	0.00646	0.00002	—	0.00002	0.00002	—	0.00002	1.21540
Architectural Coatings	1.81301	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.09701	0.03295	0.00000	0.02933	0.02933	0.00000	0.00688	0.00688	34.2382
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00527	0.00165	0.00000	0.00158	0.00158	0.00000	0.00037	0.00037	1.88796
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00096	0.00030	0.00000	0.00029	0.00029	0.00000	0.00007	0.00007	0.31257
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.15. Trenching (2027) - Unmitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18834	1.80311	0.05125	—	0.05125	0.04715	—	0.04715	433.520
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01032	0.09880	0.00281	—	0.00281	0.00258	—	0.00258	23.7545
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00188	0.01803	0.00051	—	0.00051	0.00047	—	0.00047	3.93283
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01224	0.00408	0.00000	0.00353	0.00353	0.00000	0.00083	0.00083	4.19659

Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00066	0.00021	0.00000	0.00019	0.00019	0.00000	0.00004	0.00004	0.23141
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00012	0.00004	0.00000	0.00003	0.00003	0.00000	0.00001	0.00001	0.03831
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.16. Trenching (2027) - Mitigated

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

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04912	0.80602	0.00789	—	0.00789	0.00789	—	0.00789	433.520
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00269	0.04417	0.00043	—	0.00043	0.00043	—	0.00043	23.7545
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00049	0.00806	0.00008	—	0.00008	0.00008	—	0.00008	3.93283
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01224	0.00408	0.00000	0.00353	0.00353	0.00000	0.00083	0.00083	4.19659
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.00066	0.00021	0.00000	0.00019	0.00019	0.00000	0.00004	0.00004	0.23141
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—
Worker	0.00012	0.00004	0.00000	0.00003	0.00003	0.00000	0.00001	0.00001	0.03831
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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	1/1/2027	1/29/2027	5.00000	20.0000	—
Site Preparation	Site Preparation	1/30/2027	2/13/2027	5.00000	10.00000	—
Grading	Grading	2/14/2027	3/14/2027	5.00000	20.0000	—
Building Construction	Building Construction	3/15/2027	1/31/2028	5.00000	230.000	—
Paving	Paving	2/29/2028	3/27/2028	5.00000	20.0000	—
Architectural Coating	Architectural Coating	2/1/2028	2/28/2028	5.00000	20.0000	—
Trenching	Trenching	2/14/2027	3/14/2027	5.00000	20.0000	—

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	1.000000	8.00000	33.0000	0.73000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Trenching	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000

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	1.000000	8.00000	33.0000	0.73000
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Tier 4 Final	3.00000	8.00000	36.0000	0.38000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00000	8.00000	84.0000	0.37000
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00000	8.00000	367.000	0.40000
Grading	Graders	Diesel	Tier 4 Final	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000
Grading	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.000000	8.00000	33.0000	0.73000
Building Construction	Cranes	Diesel	Tier 4 Final	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Tier 4 Final	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Tier 4 Final	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Tier 4 Final	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.000000	6.00000	37.0000	0.48000
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.000000	8.00000	84.0000	0.37000
Trenching	Excavators	Diesel	Tier 4 Final	1.000000	8.00000	36.0000	0.38000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	1.000000	LDA,LDT1,LDT2
Demolition	Vendor	—	1.000000	HHDT,MHDT
Demolition	Hauling	19.0500	1.000000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	1.000000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.000000	HHDT,MHDT
Site Preparation	Hauling	0.00000	1.000000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	17.5000	1.000000	LDA,LDT1,LDT2
Grading	Vendor	—	1.000000	HHDT,MHDT
Grading	Hauling	193.750	1.000000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	207.570	1.000000	LDA,LDT1,LDT2
Building Construction	Vendor	34.8729	1.000000	HHDT,MHDT
Building Construction	Hauling	4.09000	1.000000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	1.000000	LDA,LDT1,LDT2
Paving	Vendor	—	1.000000	HHDT,MHDT
Paving	Hauling	0.00000	1.000000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	41.5140	1.000000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	1.000000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	1.000000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	Worker	5.00000	1.000000	LDA,LDT1,LDT2
Trenching	Vendor	—	1.000000	HHDT,MHDT

Trenching	Hauling	0.00000	1.000000	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	1.000000	LDA,LDT1,LDT2
Demolition	Vendor	—	1.000000	HHDT,MHDT
Demolition	Hauling	19.0500	1.000000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	1.000000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	1.000000	HHDT,MHDT
Site Preparation	Hauling	0.00000	1.000000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	17.5000	1.000000	LDA,LDT1,LDT2
Grading	Vendor	—	1.000000	HHDT,MHDT
Grading	Hauling	193.750	1.000000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	207.570	1.000000	LDA,LDT1,LDT2
Building Construction	Vendor	34.8729	1.000000	HHDT,MHDT
Building Construction	Hauling	4.09000	1.000000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	1.000000	LDA,LDT1,LDT2
Paving	Vendor	—	1.000000	HHDT,MHDT
Paving	Hauling	0.00000	1.000000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	41.5140	1.000000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	1.000000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	1.000000	HHDT

Architectural Coating	Onsite truck	—	—	HHDT
Trenching	Worker	5.00000	1.000000	LDA,LDT1,LDT2
Trenching	Vendor	—	1.000000	HHDT,MHDT
Trenching	Hauling	0.00000	1.000000	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	521,391	173,797	0.00000	0.00000	—

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	0.00000	0.00000	0.00000	26,615.0	0.00000
Site Preparation	—	—	15.0000	0.00000	0.00000
Grading	5,000.00	26,000.0	20.0000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	0.00000

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

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Apartments Mid Rise	—	0%
Paving	Unenclosed Parking with Elevator	0.00000	100%
Paving	City Park	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	2.34000	0.00000	0.00000
2028	0.00000	2.34000	0.00000	0.00000

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	9.65000	annual days of extreme heat
Extreme Precipitation	3.10000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	10.1800	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	15.0467
AQ-PM	19.4275
AQ-DPM	28.9981
Drinking Water	39.0408
Lead Risk Housing	50.5860
Pesticides	0.00000
Toxic Releases	30.3201
Traffic	94.1250
Effect Indicators	—
CleanUp Sites	99.3841
Groundwater	94.1723
Haz Waste Facilities/Generators	93.2098
Impaired Water Bodies	91.8732
Solid Waste	99.9542
Sensitive Population	—
Asthma	37.9611

Cardio-vascular	40.0050
Low Birth Weights	98.8453
Socioeconomic Factor Indicators	—
Education	73.4244
Housing	23.8023
Linguistic	—
Poverty	27.8518
Unemployment	36.4394

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	65.64865905
Employed	58.03926601
Median HI	67.43231105
Education	—
Bachelor's or higher	46.42627999
High school enrollment	100
Preschool enrollment	71.06377518
Transportation	—
Auto Access	50.77633774
Active commuting	35.32657513
Social	—
2-parent households	66.12344412
Voting	58.42422687
Neighborhood	—
Alcohol availability	48.03028359

Park access	58.14192224
Retail density	62.49197998
Supermarket access	14.28204799
Tree canopy	39.85628128
Housing	—
Homeownership	46.75991274
Housing habitability	62.22250738
Low-inc homeowner severe housing cost burden	75.25984858
Low-inc renter severe housing cost burden	47.02938535
Uncrowded housing	42.73065572
Health Outcomes	—
Insured adults	53.9715129
Arthritis	0.0
Asthma ER Admissions	20.1
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	80.1
Cognitively Disabled	95.5
Physically Disabled	78.7
Heart Attack ER Admissions	65.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	96.4

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	3.9
Children	55.0
Elderly	87.4
English Speaking	31.8
Foreign-born	65.1
Outdoor Workers	23.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	21.5
Traffic Density	88.2
Traffic Access	46.8
Other Indices	—
Hardship	40.7
Other Decision Support	—
2016 Voting	69.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	67.0000
Healthy Places Index Score for Project Location (b)	64.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Sunnyvale default clean energy provider is Silicon Valley Clean Energy. Silicon Valley Clean Energy 2024 power content label = 202 lb/MWh. for GreenStart.
Land Use	Provided lot acreage, number of units and parking, square footages, and city park square footage from provided plans.
Construction: Construction Phases	Defaults - added trenching. Reviewed and confirmed by applicant.
Construction: Off-Road Equipment	Defaults - added trenching. Reviewed and confirmed by applicant with slight change.
Construction: Trips and VMT	Demolition = Est. 34,000-sf of pavement demo'ed and hauled (3.7 trips/day) added to 26,615-sf of building demo (15.35 trips/day) totaling 19.05 trips/day. Building Construction = 470 concrete truck round trips (4.09 trips/day). HRA = 1 mile trip length for localized emissions.
Construction: On-Road Fugitive Dust	Air District recommended BMPs = 15 mph. Required by Moffett Park SP.
Operations: Hearths	No hearths.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.
Operations: Generators + Pumps EF	Fire pump greater than 50-hp required BACT Tier 4. NOx = 0.5 g/bhp-hr, PMs = 0.02 g/bhp-hp

8.2. Project Characteristics

8.2.1. Project Details

Model Parameter	Default Value	New Value
Electric Utility	Pacific Gas & Electric Company	Silicon Valley Clean Energy

8.2.2. Utility Information

Model Parameter	Units	Default Value	New Value
CO2	lb/MWh	2.34000	202.000

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Lot Area	acre	6.97368	1.98000
Building Area	sq. ft	254,400	257,477
Landscape Area	sq. ft	—	25,792.0
Lot Area	acre	1.95300	0.00000
Building Area	sq. ft	86,800.0	39,929.0
Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Site Preparation	Site Preparation	End Date	2/3/2027	2/13/2027
Site Preparation	Site Preparation	Work Days per Phase	3.00000	10.00000
Grading	Grading	Start Date	2/4/2027	2/14/2027
Grading	Grading	End Date	2/12/2027	3/14/2027

Grading	Grading	Work Days per Phase	6.00000	20.0000
Building Construction	Building Construction	Start Date	2/13/2027	3/15/2027
Building Construction	Building Construction	End Date	12/18/2027	1/31/2028
Building Construction	Building Construction	Work Days per Phase	220.000	230.000
Paving	Paving	Start Date	12/19/2027	2/29/2028
Paving	Paving	End Date	1/2/2028	3/27/2028
Paving	Paving	Work Days per Phase	10.00000	20.0000
Architectural Coating	Architectural Coating	Start Date	1/3/2028	2/1/2028
Architectural Coating	Architectural Coating	End Date	1/17/2028	2/28/2028
Architectural Coating	Architectural Coating	Work Days per Phase	10.00000	20.0000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Demolition	Rubber Tired Dozers	Number per Day	1.000000	2.00000
Site Preparation	Tractors/Loaders/Backhoes	Number per Day	1.000000	4.00000
Site Preparation	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Grading	Tractors/Loaders/Backhoes	Number per Day	2.00000	3.00000
Grading	Tractors/Loaders/Backhoes	Hours Per Day	7.00000	8.00000
Building Construction	Cranes	Hours Per Day	8.00000	7.00000
Building Construction	Forklifts	Number per Day	2.00000	3.00000
Building Construction	Forklifts	Hours Per Day	7.00000	8.00000
Building Construction	Tractors/Loaders/Backhoes	Number per Day	1.000000	3.00000
Building Construction	Tractors/Loaders/Backhoes	Hours Per Day	6.00000	7.00000
Building Construction	Welders	Number per Day	3.00000	1.000000
Paving	Pavers	Number per Day	1.000000	2.00000
Paving	Paving Equipment	Number per Day	1.000000	2.00000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Demolition	Worker	Miles per Trip	11.7000	1.000000
Demolition	Vendor	Miles per Trip	8.40000	1.000000
Demolition	Hauling	One-Way Trips per Day	15.3500	19.0500
Demolition	Hauling	Miles per Trip	20.0000	1.000000
Site Preparation	Worker	Miles per Trip	11.7000	1.000000
Site Preparation	Vendor	Miles per Trip	8.40000	1.000000
Site Preparation	Hauling	Miles per Trip	20.0000	1.000000
Grading	Worker	Miles per Trip	11.7000	1.000000
Grading	Vendor	Miles per Trip	8.40000	1.000000
Grading	Hauling	Miles per Trip	20.0000	1.000000
Building Construction	Worker	Miles per Trip	11.7000	1.000000
Building Construction	Vendor	Miles per Trip	8.40000	1.000000
Building Construction	Hauling	One-Way Trips per Day	0.00000	4.09000
Building Construction	Hauling	Miles per Trip	20.0000	1.000000
Paving	Worker	Miles per Trip	11.7000	1.000000
Paving	Vendor	Miles per Trip	8.40000	1.000000
Paving	Hauling	Miles per Trip	20.0000	1.000000
Architectural Coating	Worker	Miles per Trip	11.7000	1.000000
Architectural Coating	Vendor	Miles per Trip	8.40000	1.000000
Architectural Coating	Hauling	Miles per Trip	20.0000	1.000000
Trenching	Worker	Miles per Trip	11.7000	1.000000
Trenching	Vendor	Miles per Trip	8.40000	1.000000
Trenching	Hauling	Miles per Trip	20.0000	1.000000

8.4.7. On-Road Fugitive Dust

Phase Name	Model Parameter	Units	Default Value	New Value
Demolition	Mean Vehicle Speed	mph	40.0000	15.0000

Site Preparation	Mean Vehicle Speed	mph	40.0000	15.0000
Grading	Mean Vehicle Speed	mph	40.0000	15.0000
Building Construction	Mean Vehicle Speed	mph	40.0000	15.0000
Paving	Mean Vehicle Speed	mph	40.0000	15.0000
Architectural Coating	Mean Vehicle Speed	mph	40.0000	15.0000
Trenching	Mean Vehicle Speed	mph	40.0000	15.0000

Attachment 2: Project Construction and Operational Dispersion Modeling Inputs and Risk Calculations

Construction Health Risk Assessment and Calculations

1215 Bordeaux Drive, Sunnyvale, CA

DPM Emissions and Modeling Emission Rates - Uncontrolled

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2027+2028	Construction	0.0620	CON_DPM	124.1	0.03181	4.01E-03	7,385	5.43E-07
Total		***0.0620***		***124.1***	***0.0318***	***0.0040***		

Construction Hours

hr/day =	15	(M-F 7am - 10pm)
days/yr =	260	
hours/year =	3900	

DPM Construction Emissions and Modeling Emission Rates - With MPSP DEIR Mitigation

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2027+2028	Construction	0.0110	CON_DPM	22.0	0.00564	7.10E-04	7,385	9.62E-08
Total		***0.0110***		***22.0***	***0.0056***	***0.0007***		

Construction Hours

hr/day =	15	(M-F 7am - 10pm)
days/yr =	260	
hours/year =	3900	

1215 Bordeaux Drive, Sunnyvale, CA

PM2.5 Fugitive Dust Emissions for Modeling - Uncontrolled

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2027+2028	Construction	CON_FUG	0.0408	81.5	0.02090	2.63E-03	7,385	3.57E-07
Total			***0.0408***	***81.5***	***0.0209***	***0.0026***		

Construction Hours
hr/day = 15 (M-F 7am - 10pm)
days/yr = 260
hours/year = 3900

PM2.5 Fugitive Dust Construction Emissions for Modeling - With With MPSP DEIR 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 $g/s/m^2$
2027+2028	Construction	CON_FUG	0.0408	81.5	0.02090	2.63E-03	7,385	3.57E-07
Total			***0.0408***	***81.5***	***0.0209***	***0.0026***		

Construction Hours
hr/day = 15 (M-F 7am - 10pm)
days/yr = 260
hours/year = 3900

1215 Bordeaux Drive, Sunnyvale, CA
Construction Health Impact Summary

Maximum Impacts at Worker Receptors - Uncontrolled

Construction Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Adult Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2027+2028	0.2034	0.1762	1.03	0.04	0.38
Total	-	-	**1.03**	-	-
Maximum	0.2034	0.1762	**-**	**0.04**	**0.38**

Maximum Impacts at Worker Receptors - With MPSP DEIR Mitigation

Construction Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Adult Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2027+2028	0.0360	0.1762	0.18	0.01	0.21
Total	-	-	**0.18**	-	-
Maximum	0.0360	0.1762	**-**	**0.01**	**0.21**

- MPSP DEIR 10.3.3.-4 Tier 4 Final Engines Mitigation and basic BMPs.

1215 Bordeaux Drive, Sunnyvale, CA - Construction Risks at Adult Worker Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Uncontrolled
Impacts at Worker MEI Location - 1.5 meter receptor height

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

	Adult Worker
Age -->	**16+**
Parameter	
ASF =	1
CPF =	1.10E+00
DBR* =	230
A =	1
EF =	250
AT =	25
FAH =	0.73

* 95th percentile breathing rates for adults

Construction Cancer Risk by Year - Maximum Impact Worker Receptor Location

Exposure Year	Exposure Duration (years)	Worker Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Modeled DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)
1	1	2027 + 2028	0.2034	1	1.03
2	1		0.0000	1	0.00
3	1		0.0000	1	0.00
4	1		0.0000	1	0.00
5	1		0.0000	1	0.00
6	1		0.0000	1	0.00
7	1		0.0000	1	0.00
8	1		0.0000	1	0.00
9	1		0.0000	1	0.00
10	1		0.0000	1	0.00
11	1		0.0000	1	0.00
12	1		0.0000	1	0.00
13	1		0.0000	1	0.00
14	1		0.0000	1	0.00
15	1		0.0000	1	0.00
16	1		0.0000	1	0.00
17	1		0.0000	1	0.00
18	1		0.0000	1	0.00
19	1		0.0000	1	0.00
20	1		0.0000	1	0.00
21	1		0.0000	1	0.00
22	1		0.0000	1	0.00
23	1		0.0000	1	0.00
24	1		0.0000	1	0.00
25	1		0.0000	1	0.00
26	1		0.0000	1	0.00
27	1		0.0000	1	0.00
28	1		0.0000	1	0.00
29	1		0.0000	1	0.00
30	1		0.0000	1	0.00
Total Increased Cancer Risk					**1.03**

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.041	0.18	0.38

1215 Bordeaux Drive, Sunnyvale, CA - Construction Risks at Adult Worker Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Uncontrolled
Impacts at Worker MEI Location - 4.5 meter receptor height

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

	Adult Worker
Age -->	**16+**
Parameter	
ASF =	1
CPF =	1.10E+00
DBR* =	230
A =	1
EF =	250
AT =	25
FAH =	0.73

* 95th percentile breathing rates for adults

Construction Cancer Risk by Year - Maximum Impact Worker Receptor Location

		Worker Adult - Exposure Information			Adult
		Modeled		Age	Cancer
Exposure	Exposure Duration	DPM Conc (ug/m3)		Sensitivity	Risk
Year	(years)	Year	Annual	Factor	(per million)
1	1	2027 + 2028	0.1668	1	0.84
2	1		0.0000	1	0.00
3	1		0.0000	1	0.00
4	1		0.0000	1	0.00
5	1		0.0000	1	0.00
6	1		0.0000	1	0.00
7	1		0.0000	1	0.00
8	1		0.0000	1	0.00
9	1		0.0000	1	0.00
10	1		0.0000	1	0.00
11	1		0.0000	1	0.00
12	1		0.0000	1	0.00
13	1		0.0000	1	0.00
14	1		0.0000	1	0.00
15	1		0.0000	1	0.00
16	1		0.0000	1	0.00
17	1		0.0000	1	0.00
18	1		0.0000	1	0.00
19	1		0.0000	1	0.00
20	1		0.0000	1	0.00
21	1		0.0000	1	0.00
22	1		0.0000	1	0.00
23	1		0.0000	1	0.00
24	1		0.0000	1	0.00
25	1		0.0000	1	0.00
26	1		0.0000	1	0.00
27	1		0.0000	1	0.00
28	1		0.0000	1	0.00
29	1		0.0000	1	0.00
30	1		0.0000	1	0.00
Total Increased Cancer Risk					**0.84**

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.033	0.14	0.31

1215 Bordeaux Drive, Sunnyvale, CA - Construction Risks at Adult Worker Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - With MPSP DEIR Mit
Impacts at Worker MEI Location - 1.5 meter receptor height

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

	Adult Worker
Age -->	**16+**
Parameter	
ASF =	1
CPF =	1.10E+00
DBR* =	230
A =	1
EF =	250
AT =	25
FAH =	0.73

* 95th percentile breathing rates for adults

Construction Cancer Risk by Year - Maximum Impact Worker Receptor Location

		Worker Adult - Exposure Information			Adult
		Modeled		Age	Cancer
Exposure	Exposure Duration	DPM Conc (ug/m3)		Sensitivity	Risk
Year	(years)	Year	Annual	Factor	(per million)
1	1	2027 + 2028	0.0360	1	0.18
2	1		0.0000	1	0.00
3	1		0.0000	1	0.00
4	1		0.0000	1	0.00
5	1		0.0000	1	0.00
6	1		0.0000	1	0.00
7	1		0.0000	1	0.00
8	1		0.0000	1	0.00
9	1		0.0000	1	0.00
10	1		0.0000	1	0.00
11	1		0.0000	1	0.00
12	1		0.0000	1	0.00
13	1		0.0000	1	0.00
14	1		0.0000	1	0.00
15	1		0.0000	1	0.00
16	1		0.0000	1	0.00
17	1		0.0000	1	0.00
18	1		0.0000	1	0.00
19	1		0.0000	1	0.00
20	1		0.0000	1	0.00
21	1		0.0000	1	0.00
22	1		0.0000	1	0.00
23	1		0.0000	1	0.00
24	1		0.0000	1	0.00
25	1		0.0000	1	0.00
26	1		0.0000	1	0.00
27	1		0.0000	1	0.00
28	1		0.0000	1	0.00
29	1		0.0000	1	0.00
30	1		0.0000	1	0.00
Total Increased Cancer Risk					**0.18**

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.007	0.18	0.21

Fire Pump Health Risk Assessment and Calculations

1215 Bordeaux Drive, Sunnyvale, CA

Standby Emergency Fire Pump Impacts
Off-site MEI Receptors
MEI Location = 1.5 meter receptor height

DPM Emission Rates		
	DPM Emissions per Generator	
Source Type	Max Daily (lb/day)	Annual (lb/year)
500-kW, 670-hp diesel-fired emergency fire pump with Tier 4 engine	0.003	1.08
CalEEMod DPM Emissions	0.00054	tons/year

Modeling Information	
Model	AERMOD
Source	Diesel Fire Pump Engine
Source Type	Point
Meteorological Data	2013 - 2017 Moffett Federal Airfield Meteorological Data
Point Source Stack Parameters	
Generator Engine Size (hp)	670
Stack Height (ft)	20.00
Stack Diameter (ft)**	0.60
Exhaust Gas Flowrate (CFM)*	2527.73
Stack Exit Velocity (ft/sec)**	149.00
Exhaust Temperature (˚F)**	872.00
Emissions Rate (lb/hr)	0.000123

* AERMOD default

**BAAQMD default engine parameters

1215 Bordeaux Drive, Sunnyvale, CA
Project Emergency Fire Pump Risk
Impacts at Worker MEI Location - 1.5 meter receptor height

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

	Adult Worker
Age -->	**16+**
Parameter	
ASF =	1
CPF =	1.10E+00
DBR* =	230
A =	1
EF =	250
AT =	25
FAH =	0.73

* 95th percentile breathing rates for adults

Construction Cancer Risk by Year - Maximum Impact Worker Receptor Location

Exposure Year	Exposure Duration (years)	Worker Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Modeled DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)
1	1	2027+2028	0.0000	1	0.00
2	1	2029	0.0003	1	0.001
3	1	2030	0.0003	1	0.001
4	1	2031	0.0003	1	0.001
5	1	2032	0.0003	1	0.001
6	1	2033	0.0003	1	0.001
7	1	2034	0.0003	1	0.001
8	1	2035	0.0003	1	0.001
9	1	2036	0.0003	1	0.001
10	1	2037	0.0003	1	0.001
11	1	2038	0.0003	1	0.001
12	1	2039	0.0003	1	0.001
13	1	2040	0.0003	1	0.001
14	1	2041	0.0003	1	0.001
15	1	2042	0.0003	1	0.001
16	1	2043	0.0003	1	0.001
17	1	2044	0.0003	1	0.001
18	1	2045	0.0003	1	0.001
19	1	2046	0.0003	1	0.001
20	1	2047	0.0003	1	0.001
21	1	2048	0.0003	1	0.001
22	1	2049	0.0003	1	0.001
23	1	2050	0.0003	1	0.001
24	1	2051	0.0003	1	0.001
25	1	2052	0.0003	1	0.001
26	1	2053	0.0003	1	0.001
27	1	2054	0.0003	1	0.001
28	1	2055	0.0003	1	0.001
29	1	2056	0.0003	1	0.001
30	1	2057	0.0003	1	0.001
Total Increased Cancer Risk					**0.04**

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.0001	0.0003	0.001

Attachment 3: Cumulative Health Risk Screening and Calculations from Existing TAC Sources

Bay Area Air District GIS Screening Data – Cumulative Roadway Cancer Risk Impacts at the MEI

Bay Area Air District GIS Screening Data – Cumulative Roadway $PM_{2.5}$ Concentration Impacts at the MEI

Bay Area Air District GIS Screening Data – Cumulative Roadway Hazard Index Impacts at the MEI

Bay Area Air District GIS Screening Data – Cumulative Roadway Cancer Risk Impacts at the Project Site

Bay Area Air District GIS Screening Data – Cumulative Roadway $PM_{2.5}$ Concentration Impacts at the Project Site

Bay Area Air District GIS Screening Data – Cumulative Roadway Hazard Index Impacts at the Project Site

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	**1/29/2026**
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x106
Email	jbauer@illingworthrodkin.com
Project Name	1215 Bordeaux Drive
Address	1215 Bordeaux Drive
City	Sunnyvale
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	265 du
Comments:	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A. Incomplete 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 stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). 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	Project MEI: Distance Adjustment Multiplier	Project MEI: Adjusted Cancer Risk Estimate	Project MEI: Adjusted Hazard Risk	Project MEI: Adjusted PM2.5
180	23575	City of Sunnyvale - Station 5 - 1	1210 Bordeaux Drive	0	0	0		Generator		2023 Dataset	0.50	0.00	0.00	0.00
670	23252	Google LLC	1220 N Mathilda Ave	13	0	0.02		Generator		2023 Dataset	0.08	1.04	0.00	0.002
700	22403	Google LLC	1190 BORDEAUX DR	1	0	0		Generator		2023 Dataset	0.07	0.07	0.00	0.00
950	11024	JSR Micro Inc	1280 N Mathilda Ave	8	0.3	0.54		Manufacturing		2023 Dataset	0.14	1.13	0.04	0.08
700	25117	Nanosys Inc	1231 Bordeaux Dr & W Ja	0	0	0		Manufacturing		2023 Dataset	0.23	0.00	0.00	0.00
580	13156	OEpic Inc	1231 Bordeaux Drive	1	0	0		Manufacturing		2023 Dataset	0.30	0.30	0.00	0.00
800	13549	Pacific Bell	1140 N Mathilda Ave	5	0	0.01		Generator		2023 Dataset	0.06	0.30	0.00	0.001
+1000	14864	Star One Credit Union	1306 Bordeaux Drive	0	0	0		Generator		2023 Dataset	0.04	0.00	0.00	0.00
780	18507	Verizon Wireless (Lockheed)	1184 N Mathilda Ave #56	2	0	0		Generator		2023 Dataset	0.06	0.12	0.00	0.00
+1000	201975	Google	1265 BORREGAS AVENUE	0	0	0		Generator		2023 Dataset	0.04	0.00	0.00	0.00

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

Project Site

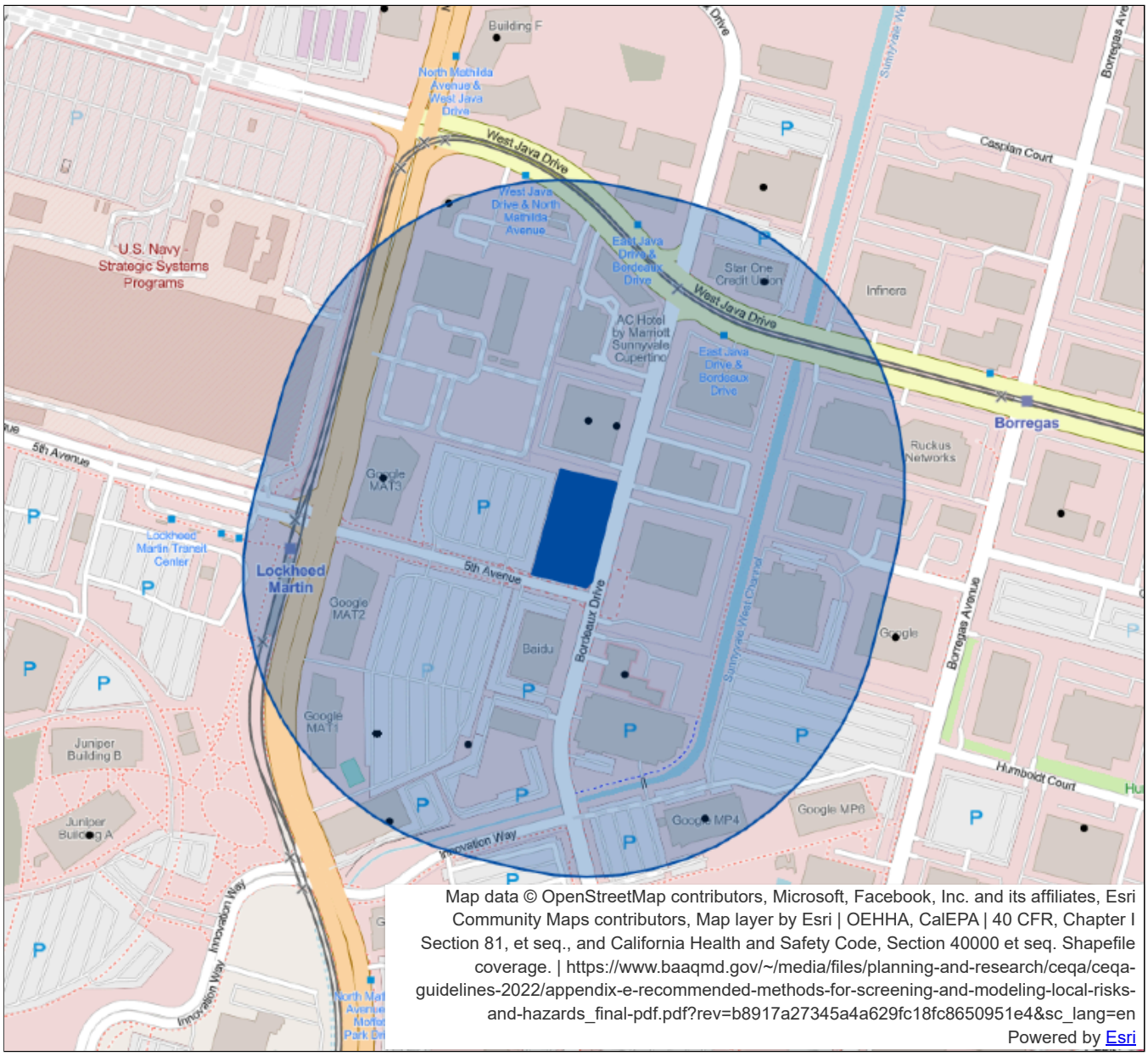
Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
240	23575	0.31	0.00	0.00	0.00
500	23252	0.12	1.56	0.00	0.002
800	22403	0.06	0.06	0.00	0.00
+1000	11024	0.13	1.05	0.04	0.07
200	25117	0.64	0.00	0.00	0.00
80	13156	0.80	0.80	0.00	0.00
900	13549	0.04	0.20	0.00	0.0004
810	14864	0.05	0.00	0.00	0.00
790	18507	0.06	0.12	0.00	0.00
960	201975	0.04	0.00	0.00	0.00

Near Me Report

Area of Interest (AOI) Information

Area: 4,497,150.43 ft²

Date: Tue Jan 13 2026 11:53:27 GMT-0800 (Pacific Standard Time)



Permitted Stationary Sources

●

Bay Area Air District Boundary

Overburdened Communities

Permitted Stationary Sources | Total count: 42

#	OBJECTID	FacilityID	FacilityName
1	5674	23575	City of Sunnyvale - Station 5 - 156-1
2	5513	23252	Google LLC
3	5024	22403	Google LLC
4	861	11024	JSR Micro Inc
5	8142	55-212	Lockheed Martin Corporation
6	8143	55-5337	Lockheed Martin Corporation
7	8144	55-5338	Lockheed Martin Corporation
8	8145	55-5404	Lockheed Martin Corporation
9	8146	55-5610	Lockheed Martin Corporation
10	8147	55-5615	Lockheed Martin Corporation
11	8148	55-5618	Lockheed Martin Corporation
12	8149	55-5622	Lockheed Martin Corporation
13	8150	55-5623	Lockheed Martin Corporation
14	8151	55-5624	Lockheed Martin Corporation
15	8152	55-5625	Lockheed Martin Corporation
16	8153	55-5630	Lockheed Martin Corporation
17	8154	55-5631	Lockheed Martin Corporation
18	8155	55-5632	Lockheed Martin Corporation
19	8156	55-5633	Lockheed Martin Corporation
20	8157	55-5701	Lockheed Martin Corporation
21	8158	55-5702	Lockheed Martin Corporation
22	8159	55-5806	Lockheed Martin Corporation
23	8160	55-5807	Lockheed Martin Corporation
24	8161	55-5808	Lockheed Martin Corporation
25	8162	55-5920	Lockheed Martin Corporation
26	8163	55-5922	Lockheed Martin Corporation
27	8164	55-7112	Lockheed Martin Corporation
28	8165	55-7201	Lockheed Martin Corporation
29	8166	55-7432	Lockheed Martin Corporation
30	8167	55-7603	Lockheed Martin Corporation
31	8168	55-8280	Lockheed Martin Corporation
32	8169	55-8602	Lockheed Martin Corporation
33	8170	55-9507	Lockheed Martin Corporation
34	8171	55-9519	Lockheed Martin Corporation
35	8172	55-9520	Lockheed Martin Corporation
36	8173	55-9521	Lockheed Martin Corporation
37	8174	55-REM	Lockheed Martin Corporation
38	6495	25117	Nanosys Inc
39	1122	13156	OEpic Inc
40	1285	13549	Pacific Bell
41	1857	14864	Star One Credit Union
42	3215	18507	Verizon Wireless (Lockheed)

#	Address	City	State
1	1210 Bordeaux Drive	Sunnyvale	CA
2	1220 N Mathilda Ave	Sunnyvale	CA
3	1190 BORDEAUX DR	Sunnyvale	CA
4	1280 N Mathilda Ave	Sunnyvale	CA
5	1111 Lockheed Martin Way	Sunnyvale	CA
6	1111 Lockheed Martin Way	Sunnyvale	CA
7	1111 Lockheed Martin Way	Sunnyvale	CA
8	1111 Lockheed Martin Way	Sunnyvale	CA
9	1111 Lockheed Martin Way	Sunnyvale	CA
10	1111 Lockheed Martin Way	Sunnyvale	CA
11	1111 Lockheed Martin Way	Sunnyvale	CA
12	1111 Lockheed Martin Way	Sunnyvale	CA
13	1111 Lockheed Martin Way	Sunnyvale	CA
14	1111 Lockheed Martin Way	Sunnyvale	CA
15	1111 Lockheed Martin Way	Sunnyvale	CA
16	1111 Lockheed Martin Way	Sunnyvale	CA
17	1111 Lockheed Martin Way	Sunnyvale	CA
18	1111 Lockheed Martin Way	Sunnyvale	CA
19	1111 Lockheed Martin Way	Sunnyvale	CA
20	1111 Lockheed Martin Way	Sunnyvale	CA
21	1111 Lockheed Martin Way	Sunnyvale	CA
22	1111 Lockheed Martin Way	Sunnyvale	CA
23	1111 Lockheed Martin Way	Sunnyvale	CA
24	1111 Lockheed Martin Way	Sunnyvale	CA
25	1111 Lockheed Martin Way	Sunnyvale	CA
26	1111 Lockheed Martin Way	Sunnyvale	CA
27	1111 Lockheed Martin Way	Sunnyvale	CA
28	1111 Lockheed Martin Way	Sunnyvale	CA
29	1111 Lockheed Martin Way	Sunnyvale	CA
30	1111 Lockheed Martin Way	Sunnyvale	CA
31	1111 Lockheed Martin Way	Sunnyvale	CA
32	1111 Lockheed Martin Way	Sunnyvale	CA
33	1111 Lockheed Martin Way	Sunnyvale	CA
34	1111 Lockheed Martin Way	Sunnyvale	CA
35	1111 Lockheed Martin Way	Sunnyvale	CA
36	1111 Lockheed Martin Way	Sunnyvale	CA
37	1111 Lockheed Martin Way	Sunnyvale	CA
38	1231 Bordeaux Dr & W Java Dr	Sunnyvale	CA
39	1231 Bordeaux Drive	Sunnyvale	CA
40	1140 N Mathilda Ave	Sunnyvale	CA
41	1306 Bordeaux Drive	Sunnyvale	CA
42	1184 N Mathilda Ave #560	Sunnyvale	CA

#	Zip	County	Latitude
1	94089	Santa Clara	37.409014
2	94089	Santa Clara	37.410903
3	94089	Santa Clara	37.407620
4	94089	Santa Clara	37.413550
5	94089	Santa Clara	37.408444
6	94089	Santa Clara	37.408444
7	94089	Santa Clara	37.408444
8	94089	Santa Clara	37.408444
9	94089	Santa Clara	37.408444
10	94089	Santa Clara	37.408444
11	94089	Santa Clara	37.408444
12	94089	Santa Clara	37.408444
13	94089	Santa Clara	37.408444
14	94089	Santa Clara	37.408444
15	94089	Santa Clara	37.408444
16	94089	Santa Clara	37.408444
17	94089	Santa Clara	37.408444
18	94089	Santa Clara	37.408444
19	94089	Santa Clara	37.408444
20	94089	Santa Clara	37.408444
21	94089	Santa Clara	37.408444
22	94089	Santa Clara	37.408444
23	94089	Santa Clara	37.408444
24	94089	Santa Clara	37.408444
25	94089	Santa Clara	37.408444
26	94089	Santa Clara	37.408444
27	94089	Santa Clara	37.408444
28	94089	Santa Clara	37.408444
29	94089	Santa Clara	37.408444
30	94089	Santa Clara	37.408444
31	94089	Santa Clara	37.408444
32	94089	Santa Clara	37.408444
33	94089	Santa Clara	37.408444
34	94089	Santa Clara	37.408444
35	94089	Santa Clara	37.408444
36	94089	Santa Clara	37.408444
37	94089	Santa Clara	37.408444
38	94089	Santa Clara	37.411460
39	94089	Santa Clara	37.411408
40	94086	Santa Clara	37.407596
41	94089	Santa Clara	37.412793
42	94089	Santa Clara	37.408340

#	Longitude	SourceType	NAICS
1	-122.022825	Generator	541320
2	-122.025754	Generator	541512
3	-122.021855	Generator	531120
4	-122.024967	*No data*	334412
5	-122.025833	Generator	336414
6	-122.025833	Generator	336414
7	-122.025833	Generator	336414
8	-122.025833	Generator	336414
9	-122.025833	Generator	336414
10	-122.025833	Generator	336414
11	-122.025833	Generator	336414
12	-122.025833	Generator	336414
13	-122.025833	Generator	336414
14	-122.025833	Generator	336414
15	-122.025833	Generator	336414
16	-122.025833	Generator	336414
17	-122.025833	Generator	336414
18	-122.025833	Generator	336414
19	-122.025833	Generator	336414
20	-122.025833	Generator	336414
21	-122.025833	Generator	336414
22	-122.025833	Generator	336414
23	-122.025833	Generator	336414
24	-122.025833	Generator	336414
25	-122.025833	Generator	336414
26	-122.025833	Generator	336414
27	-122.025833	Generator	336414
28	-122.025833	Generator	336414
29	-122.025833	Generator	336414
30	-122.025833	Generator	336414
31	-122.025833	Generator	336414
32	-122.025833	Generator	336414
33	-122.025833	Generator	336414
34	-122.025833	Generator	336414
35	-122.025833	Generator	336414
36	-122.025833	Generator	336414
37	-122.025833	*No data*	336414
38	-122.023266	*No data*	334413
39	-122.022928	*No data*	334413
40	-122.025685	Generator	517111
41	-122.021139	Generator	522130
42	-122.024732	Generator	517112

#	NAICS Sector	NAICS Subsector	NAICS Industry
1	Professional, Scientific, and Technical Services	Professional, Scientific, and Technical Services	Landscape Architectural Services
2	Professional, Scientific, and Technical Services	Professional, Scientific, and Technical Services	Computer Systems Design Services
3	Real Estate and Rental and Leasing	Real Estate	Lessors of Nonresidential Buildings (except Miniwarehouses)
4	Manufacturing	Computer and Electronic Product Manufacturing	Bare Printed Circuit Board Manufacturing
5	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
6	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
7	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
8	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
9	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
10	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
11	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
12	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
13	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
14	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
15	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
16	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
17	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
18	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
19	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
20	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
21	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
22	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
23	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
24	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
25	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
26	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
27	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
28	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing

29	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
30	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
31	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
32	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
33	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
34	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
35	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
36	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
37	Manufacturing	Transportation Equipment Manufacturing	Guided Missile and Space Vehicle Manufacturing
38	Manufacturing	Computer and Electronic Product Manufacturing	Semiconductor and Related Device Manufacturing
39	Manufacturing	Computer and Electronic Product Manufacturing	Semiconductor and Related Device Manufacturing
40	Information	Telecommunications	Wired Telecommunications Carriers
41	Finance and Insurance	Credit Intermediation and Related Activities	Credit Unions
42	Information	Telecommunications	Wireless Telecommunications Carriers (except Satellite)

#	CancerRisk	ChronicHI	PM25	Throughput_Gal/yr
1	0	0.00	0.00	*No data*
2	13	0.00	0.02	*No data*
3	1	0.00	0.00	*No data*
4	8	0.30	0.54	*No data*
5	0	0.00	0.00	*No data*
6	2	0.00	0.00	*No data*
7	2	0.00	0.00	*No data*
8	1	0.00	0.00	*No data*
9	6	0.00	0.01	*No data*
10	1	0.00	0.00	*No data*
11	2	0.00	0.00	*No data*
12	0	0.00	0.00	*No data*
13	1	0.00	0.00	*No data*
14	1	0.00	0.00	*No data*
15	2	0.00	0.00	*No data*
16	0	0.00	0.00	*No data*
17	1	0.00	0.00	*No data*
18	1	0.00	0.00	*No data*
19	1	0.00	0.00	*No data*
20	16	0.00	0.02	*No data*
21	1	0.00	0.00	*No data*
22	1	0.00	0.00	*No data*
23	1	0.00	0.00	*No data*
24	1	0.00	0.00	*No data*
25	11	0.00	0.01	*No data*
26	8	0.00	0.01	*No data*
27	17	0.00	0.02	*No data*
28	1	0.00	0.00	*No data*
29	1	0.00	0.00	*No data*
30	2	0.00	0.00	*No data*
31	1	0.00	0.00	*No data*
32	1	0.00	0.00	*No data*
33	1	0.00	0.00	*No data*
34	1	0.00	0.00	*No data*
35	1	0.00	0.00	*No data*
36	1	0.00	0.00	*No data*
37	56	0.06	7.68	*No data*
38	0	0.00	0.00	*No data*
39	1	0.00	0.00	*No data*
40	5	0.00	0.01	*No data*
41	0	0.00	0.00	*No data*
42	2	0.00	0.00	*No data*