

Appendix A
Air Quality Assessment

***550 PIERCY ROAD
INDUSTRIAL
DEVELOPMENT PROJECT
AIR QUALITY
ASSESSMENT***

San José, California

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Introduction

The purpose of this report is to address air quality impacts associated with the proposed industrial project located at 550 Piercy Road in San José, California. The air quality impacts from this project would be associated with construction of the new buildings and operation of the project. Air pollutant emissions associated with construction and operation of the project were predicted using appropriate computer models. In addition, the potential project health risk impacts (including construction and operation) and the impact of existing toxic air contaminant (TAC) sources affecting the nearby and proposed sensitive receptors were evaluated. Energy consumption based on the results of the air quality emissions modeling is also provided. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).¹

Project Description

The project site is located on a single vacant parcel that is 29.58 acres located at 550 Piercy Road. The project proposes to construct two general industrial buildings totaling approximately 430,000 square feet (sf). The project site would be accessed via four new driveways. Two driveways would be located on the north side via Piercy Road with two additional driveways on the south side via Hellyer Avenue. The project would include surface parking lots throughout the site including 322 standard parking spaces, 12 accessible parking spaces, and 88 truck trailer parking spaces. The exact usage of the proposed buildings is currently unknown but would likely be used for industrial distribution, manufacturing, and/or research & development.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}).

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels

¹ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. 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 can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust 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. The most recent Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines were published in February of 2015.² See *Attachment 1* for a detailed description of the community risk modeling methodology used in this assessment.

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, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are the single-family residences approximately 90 ft to the east, across Piercy Road from the project. Additional sensitive receptors are the single-family residences located to the north and southeast of the project site. This project would not introduce new sensitive receptors (i.e., residents) to the area.

Regulatory Setting

Federal Regulations

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

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

In the past decade, the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_x and particulate matter (PM₁₀ and PM_{2.5}) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_x emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.³

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

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

State Air Quality Regulations

The CARB is the agency responsible for the coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA, adopted in 1988. The CCAA requires that all air districts in the state achieve and maintain the CAAQS by the earliest practical date. The CCAA specifies that districts should focus on reducing the emissions from transportation and air-wide emission sources and provides districts with the authority to regulate indirect sources.

CARB is also responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. CARB is primarily responsible for statewide pollution sources and produces a major part of the SIP. Local air districts provide additional strategies for sources under their jurisdiction. CARB combines this data and submits the completed SIP to the EPA.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS

³ USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

(which in many cases are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, and off-road vehicles.

California Clean Air Act

In 1988, the CCAA required that all air districts in the state endeavor to achieve and maintain CAAQS for CO, O₃, SO₂, and NO₂ by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the state standards for these pollutants are more stringent than the national standards.

California Air Resources Board Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.⁴ CARB subsequently developed an Air Quality and Land Use Handbook⁵ (Handbook) in 2005 that is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The 2005 CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for “sensitive” land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds.

Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Plan Area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.
- Within 300 feet of gasoline fueling stations (note that new fueling stations utilize enhanced vapor recovery systems that substantially reduce emissions).
- Within 300 feet of dry-cleaning operations (note that dry cleaning with TACs is being phased out and will be prohibited in 2023).

⁴ California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

⁵ California Air Resources Board, 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April.

Truck and Bus Regulation

CARB is actively enforcing heavy-duty diesel vehicle regulations that require fleets to replace or retrofit heavy-duty diesel vehicles, with full implementation of the program scheduled for January 1, 2023. Compliance with the program is generally considered vehicles equipped with a 2010 or newer engine model year. As of January 1, 2020, the DMV cannot register any vehicle that does not meet the requirements of the Truck and Bus Regulation.

Other CARB diesel programs affecting heavy-duty diesel vehicles include:

- Idling limits of no more than 5 minutes with special exceptions.
- Emission Control Labels must be affixed to engines of all commercial heavy-duty diesel vehicles, and must be legible as proof the engine, at minimum, meets U.S. federal emissions standards for the engine model year.
- The Periodic Smoke Inspection Program requires owners of California-based fleets of two or more diesel vehicles to perform annual smoke opacity tests and to keep records for at least two years for each vehicle.
- The Heavy-Duty Vehicle Inspection Program uses random roadside inspections to verify that diesel engines do not smoke excessively and are tamper-free.

Off-Road Vehicle and Equipment Regulations

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

Fleet owners must report the vehicle and engine information for all vehicles within their fleets operating in California. Fleet owners must also report owner information. Fleet owners should report using DOORS, which is CARB's online reporting tool. CARB issues a unique Equipment Identification Number (EIN) that is assigned to each vehicle. The fleet owner must label their vehicles with the EIN.

Other CARB diesel programs affecting off-road vehicles and equipment include:

- Idling limits of no more than 5 minutes with special exceptions.
- Portable engines 50 hp or greater may require a permit or registration to legally operate. BAAQMD is responsible for taking enforcement action against individuals who own or operate portable equipment without a registration or permit.

Bay Area Air Quality Management District (BAAQMD)

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

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

BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.⁶ The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses will be used to focus emission reduction measures in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. The BAAQMD defines overburdened communities as areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall CalEnviroScreen score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.⁷ The CalEnviroScreen 4.0 overall percentile score is 17.0. The project site and its environs are not within a CARE area and are not within a BAAQMD overburdened area as identified by CalEnviroScreen.

The BAAQMD California Environmental Quality Act (*CEQA*) *Air Quality Guidelines*⁸ were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The 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 also include

⁶ See BAAQMD: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program> , accessed 2/18/2021.

⁷ See BAAQMD: https://www.baaqmd.gov/~/_media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofverburdenedcommunities-pdf.pdf?la=en , accessed 10/1/2021.

⁸ Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

assessment methodologies for air toxics, odors, and greenhouse gas emissions. *Attachment 1* includes detailed community risk modeling methodology.

San José Envision 2040 General Plan

The San José Envision 2040 General Plan includes goals, policies, and actions to reduce exposure of the City’s sensitive population to exposure of air pollution and toxic air contaminants or TACs. The following goals, policies, and actions are applicable to the proposed project and this assessment:

Applicable Goals – Air Pollutant Emission Reduction

Goal MS-10 Minimize emissions from new development.

Applicable Policies – Air Pollutant Emission Reduction

- MS-10.1 Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.
- MS-10.2 Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region’s Clean Air Plan and State law.
- MS-10.3 Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.
- MS-10.4 Encourage effective regulation of mobile and stationary sources of air pollution, both inside and outside of San José. In particular, support Federal and State regulations to improve automobile emission controls.
- MS-10.5 In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives
- MS-10.7 Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.
- MS-10.13 As a part of City of San José Sustainable City efforts, educate the public about air polluting household consumer products and activities that generate air pollution. Increase public awareness about the alternative products and activities that reduce air pollutant emissions.

Applicable Goals – Toxic Air Contaminants

Goal MS-11 Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Applicable Policies – Toxic Air Contaminants

MS-11.2 For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

MS-11.4 Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

MS-11.5 Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

Actions – Toxic Air Contaminants

MS-11.6 Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of TACs and PM_{2.5}, emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate

MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

MS-11.8 For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

Applicable Goals – Objectionable Odors

Goal MS-12 Minimize and avoid exposure of residents to objectionable odors.

Applicable Policies – Objectionable Odors

MS-12.1 For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater

treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

- MS-12.2 Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size, and operations of the facility.

Applicable Goals – Construction Air Emissions

- Goal MS-13 Minimize air pollutant emissions during demolition and construction activities.

Applicable Policies – Construction Air Emissions

- MS-13.1 Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Applicable Actions – Construction Air Emissions

- MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 *CEQA Air Quality Guidelines*. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the *CEQA Air Quality Guidelines* in 2017 to include the latest significance thresholds that were used in this analysis are summarized in Table 1. Community risks are considered significant if they exceed these levels.

Table 1. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (Exhaust)	82	15
PM _{2.5}	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	None	
Health Risks and Hazards	Single Sources Within 1,000-foot Zone of Influence	Combined Sources (Cumulative from all sources within 1000-foot zone of influence)	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental annual PM _{2.5}	0.3 µg/m ³	0.8 µg/m ³	
Note: ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases. *BAAQMD does not have a recommended post-2020 GHG threshold.			

Source: Bay Area Air Quality Management District, 2017

AIR QUALITY IMPACTS AND MITIGATION MEASURES

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

BAAQMD is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the San Francisco Bay Area Air Basin (SFBAAB). BAAQMD, with assistance from the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), prepares and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive of which is the *Bay Area 2017 Clean Air Plan*.⁹ The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality and GHG impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which, in turn, affects region-wide emissions of air pollutants and GHGs.

⁹ Bay Area Air Quality Management District (BAAQMD), 2017. *Final 2017 Clean Air Plan*.

The 2017 Clean Air Plan, adopted by BAAQMD in April 2017, includes control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. Guidance provided in the BAAQMD CEQA guidelines recommends that Plans show consistency with the control measures listed within the Clean Air Plan. At the project-level, there are no consistency measures or thresholds provided in BAAQMD’s CEQA guidance. The proposed project would not conflict with the latest Clean Air planning efforts since 1) project would have emissions below the BAAQMD thresholds (see Impact below) and 2) the project would be considered urban infill as it develops an area previously analyzed and approved to be an active commercial or industrial land use.

Impact AIR-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act, but not the federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for O₃, PM_{2.5} and PM₁₀, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O₃ precursor pollutants (ROG and NO_x), PM₁₀, and PM_{2.5} and apply to both construction period and operational period impacts.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB Emission FACTors 2021 (EMFAC2021) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.¹⁰ The CalEEMod model output along with construction inputs are included in *Attachment 2* and EMFAC2021 vehicle emissions modeling outputs are included in *Attachment 3*.

CalEEMod Modeling

Land Use Inputs

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	Acreage
Unrefrigerated Warehouse – No Rail	430	1,000-sf	430,000	29
Parking Lot	334	1,000-sf	133,600	

¹⁰ See CARB’s EMFAC2021 Emissions Inventory at <https://arb.ca.gov/emfac/emissions-inventory>.

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 list and schedule, were based on CalEEMod defaults for a project of this type and size that was reviewed and approved by the applicant. The applicant provided estimated soil, concrete, and asphalt hauling quantities.

The CalEEMod construction information included the schedule for each phase. Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays was set to the CalEEMod default for each phase. The construction schedule assumed that the earliest possible start date would be January 2023 and would be built out over a period of approximately 18 months, or 401 construction workdays. The earliest year of full operation was assumed to be 2025. Emission rates for construction equipment and traffic are lower in future years as newer equipment with lower emissions rates is introduced into the overall fleet replacing older equipment with high emission rates.

Construction Truck 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 estimate of soil, cement, and asphalt haul truck trips. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips for grading were estimated from the estimated hauling volumes by CalEEMod. The number of concrete and asphalt total round haul trips were provided by the applicant.

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2017 motor vehicle emission factor model. This model has been superseded by the EMFAC2021 model; however, CalEEMod has not been updated to include EMFAC2021. Therefore, the construction traffic information was combined with EMFAC2021 motor vehicle emissions factors. EMFAC2021 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod default assumptions, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1 and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trips, including cement trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling (soil import/export). Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On road emissions in Santa Clara County for 2023-2024 were used in these calculations. Table 3 provides the traffic inputs that were combined with the EMFAC2021 emission database to compute vehicle emissions.

Table 3. Construction Traffic Data Used for EMFAC2021 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker ¹	Total Vendor ¹	Total Haul ²	
Vehicle mix ¹	50% LDA 25% LDT1 25% LDT2	50% MHDT 50% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0	CalEEMod default distance with 5-min truck idle time.
Demolition	-	-	-	No Demolition
Site Preparation	180	-	-	CalEEMod default worker trips.
Grading	600	-	42,023	168,081-cy soil import and 168,102-cy soil export. CalEEMod default worker trips.
Trenching	100	-	-	CalEEMod default worker trips.
Building Construction	71,100	27,600	3,289	1,644 concrete-truck round trips. CalEEMod default worker and vendor trips.
Architectural Coating	940	-	-	CalEEMod default worker trips
Paving	300	-	1,722	7,176-cy asphalt hauling. CalEEMod default worker trips.
Notes: ¹ Based on 2023-2024 EMFAC2021 light-duty vehicle fleet mix for Santa Clara County. ² Includes soil hauling trips estimated by CalEEMod based on amount of material to be removed. Cement and asphalt trips estimated based on provided delivery estimates.				

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active construction workdays that year. Table 4 shows the annualized average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. As indicated in Table 4, predicted annualized project construction emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 4. Construction Period Emissions

Year	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
<i>Construction Emissions Per Year (Tons)</i>				
2023	0.22	2.98	0.17	0.10
2024	2.38	1.55	0.09	0.05
<i>Average Daily Construction Emissions Per Year (pounds/day)</i>				
2023 (242 construction workdays)	1.81	24.61	1.40	0.83
2024 (159 construction workdays)	29.89	19.48	1.19	0.64
<i>BAAQMD Thresholds (pounds per day)</i>	54 lbs./day	54 lbs./day	82 lbs./day	54 lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ 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 BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. San Jose General Policy MS-10.1 specifies that projects should assess projected air emissions from new developments in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards and identify and implement feasible air emission reduction measures requires construction projects to implement these measures. *Mitigation Measure AQ-1 would implement BAAQMD's standard best management practices.*

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Standard Measures to Control Particulate Matter Emissions during Construction.

Measures to reduce fugitive dust (i.e., PM_{2.5}) emissions from construction are recommended to reduce fugitive dust emissions and ensure that health impacts to nearby sensitive receptors are minimized. During any construction period ground disturbance, the applicant shall ensure that the project contractor implements basic measures to control dust and exhaust. Implementation of the dust control measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following best management practices:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. 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.

8. 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.

Effectiveness of Mitigation Measure AQ-1

Mitigation Measure AQ-1 represents standard mitigation measures that would achieve greater than a 50 percent reduction in on-site fugitive PM_{2.5} emissions. These measures are consistent with recommendations in the BAAMQD CEQA Guidance for providing "best management practices" to control construction emissions.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from trucks using the industrial warehouse and autos driven by future employees and vendors or customers. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

CalEEMod Inputs

Land Uses

The project land uses were input to CalEEMod as described above for the construction period modeling.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest year of full operation would be 2025 if construction begins in 2023. Emissions associated with build-out later than 2025 would be lower.

Project Traffic: Trucks and Passenger Vehicles

CalEEMod allows the user to enter specific vehicle trip generation rates. Project-specific traffic and truck-trip generation estimates were provided for this assessment.¹¹ The project would produce 1,989 daily trips, including both automobile and truck trips. There would be 258 (diesel) truck trips generated daily by the project that are part of the daily trip generation estimate. The daily trip generation was calculated using the size of the project and the total project trips, broken down by regular traffic and truck traffic. The project was assumed to operate seven days per week at the

¹¹ Hexagon Transportation Consultants, Inc., 550 Piercy Road Industrial Buildings Draft Transportation Analysis, September 2, 2022.

same rate. For the default trip lengths and trip types specified by CalEEMod were used for typical traffic.

The Project would generate 1,731 daily mixed-vehicle trips and 258 heavy-heavy duty trucks. CalEEMod was used to model emissions from these trips: one run for mixed vehicle types and one for trucks. The CalEEMod default model vehicle fleet mix, trip type and trip lengths were applied to mixed vehicle traffic. The CalEEMod run used to model the heavy-duty trucks using a trip length of 24 miles.

EMFAC2021 Adjustment

Vehicle emission factors and fleet mix used in CalEEMod to model the general traffic mix are based on EMFAC2017, which is an older CARB emission inventory for on road and off-road mobile sources. Since the release of CalEEMod Version 2020.4.0, new emission factors have been produced by CARB. EMFAC2021 became available for use in January 2021. It includes the latest data on California's car and truck fleets and travel activity. The CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2021, which were adjusted with the CARB EMFAC off-model adjustment factors. On road emission rates from 2025 Santa Clara County were used (See *Attachment 3*). More details about the updates in emissions calculation methodologies and data are available in the EMFAC2021 Technical Support Document.¹²

Energy

CalEEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. San Jose Clean Energy is the default electricity provider in San Jose. CalEEMod has a default emission factor of 807 pounds of CO₂ per megawatt of electricity produced; however, SJCE reports a current rate of 0.0806 metric tons per megawatt or 177.69 pounds per megawatt. The City's Greenhouse Gas Reduction Strategy reduces this intensity factor to 0 (carbon-free) by 2030.

The City of San José passed an ordinance in December 2020 that prohibits the use of natural gas infrastructure in all new building construction with limited exemptions.¹³ This ordinance applies to any new construction starting August 1, 2021. Natural gas use for the unrefrigerated warehouse land use was set to zero and reassigned to electricity use in CalEEMod.

Summary of Computed Operational Period Emissions

Annual emissions were predicted using CalEEMod. The daily emissions were calculated assuming 365 days of operation. Table 5 shows average daily emissions of ROG, NO_x, total PM₁₀, and total

¹² See CARB 2021: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac>

¹³ City of San José, 2020. "Expand Natural Gas Ban", December. Web: <https://www.sanjoseca.gov/Home/Components/News/News/2210/4699>

PM_{2.5} during operation of the project. The operational period emissions would not exceed the BAAQMD significance thresholds. Model summaries and output are provided in *Attachment 2*.

Table 5. Operational Period Emissions

Scenario	ROG	NO _x	PM ₁₀	PM _{2.5}
2025 Project Operational Emissions (<i>tons/year</i>)	3.04	5.20	2.64	0.72
<i>BAAQMD Thresholds (tons /year)</i>	<i>10 tons</i>	<i>10 tons</i>	<i>15 tons</i>	<i>10 tons</i>
<i>Exceed Thresholds?</i>	No	No	No	No
2025 Project Operational Emissions (<i>lbs./day</i>) ¹	16.67	28.51	14.47	3.95
<i>BAAQMD Thresholds (lbs./day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceed Threshold?</i>	No	No	No	No

Notes: ¹ Assumes 365-day operation.

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

Project impacts related to increased community risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity or by significantly exacerbating existing cumulative TAC impacts. This project would introduce new sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., trucks and other vehicle traffic).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. Traffic generated by the project would consist of mostly light-duty gasoline-powered vehicles along with some trucks, which would produce TAC and air pollutant emissions.

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

Community Risk Methodology for Construction and Operation

Community risk impacts are 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. Construction sources include on-site construction activity, construction truck hauling, and increased traffic from construction workers. Operations sources included track traffic to and from the project and employee vehicle emissions. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,¹⁴ with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

¹⁴ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

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 over the entirety of the project. The project maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.

The methodology for computing community risks impacts is contained in *Attachment 1*. This involved the calculation of TAC and PM_{2.5} emissions, dispersion modeling of these emissions, and computations of cancer risk and non-cancer health effects.

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures). This includes the nearby single-family residences to the east and southeast of the project site, as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions.

Health Risks from the Project

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Likewise, diesel truck traffic on and off-site generated by the project once operational would also generate exhaust emissions. These exhaust emissions pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction and operation emissions are cancer risk and exposure to PM_{2.5}. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of both the project's construction activities and operational activities was conducted that evaluated potential health effects to nearby sensitive receptors from emissions of DPM and PM_{2.5}.¹⁵ This assessment included dispersion modeling to predict the offsite concentrations and the maximumly exposed individual (MEI) resulting from the project, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod model and EMFAC2021 emissions provided total annual PM₁₀ exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages as 0.09 tons (180 pounds). 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 these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM_{2.5} dust emissions were calculated by CalEEMod as 0.12 tons (231 pounds) for the overall construction period.

¹⁵ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

Operational Truck Traffic Emissions

The project's trip generation estimates include 258 daily truck trips generated from operating the proposed project, which are assumed to be heavy-duty diesel-powered trucks and a source of long-term DPM emissions. These trucks would travel to and from the site and are anticipated to idle on-site for 5 minutes for each trip. Daily passenger vehicle trips generated by the project would not generate a significant amount of TAC emissions and were not included in the analysis.

Analysis of on-site and off-site TAC emission impacts required developing emissions rates for DPM, PM_{2.5}, and organic TACs (as TOG). The latest version of CARB's EMFAC emissions model (EMFAC2021) was used to develop the emissions rates needed.¹⁶ EMFAC2021 includes the latest data on California's car and truck fleets and travel activity. EMFAC2021 produce emissions rates for either specific vehicle categories or aggregate rates emissions rates using county-wide vehicle populations. However, the rates produced are only for criteria pollutants, not TACs or DPM. Therefore, CT-EMFAC2017 was also used to aid in the development of TAC emissions rates used in the analysis.

CT-EMFAC2017 is the Caltrans version of the CARB's EMFAC2017 emissions model and provides emission factors for mobile source criteria pollutants and TACs, including DPM, based on specific truck fractions input by the user. CT-EMFAC2017 uses the fraction of gasoline and diesel vehicles in three vehicle categories (i.e., Non-Truck, Truck 1, and Truck 2). Truck2 EMFAC2021 emissions rates for diesel vehicles were used for truck traffic.

The ratio of DPM to PM_{2.5} produced by CT-EMFAC2017 was used to derive a DPM emissions rate using EMFAC2021 for each speed needed. Emission processes modeled for the analysis include idle emissions and running exhaust for PM_{2.5}, DPM, and TOG. Fugitive PM_{2.5} emissions were also estimated using the road dust emissions factors provided by CT-EMFAC2017 and the tire wear and brake wear emissions rates provided by EMFAC2021. Inputs to the emissions models (both EMFAC2021 and CT-EMFAC2017) include region (i.e., Santa Clara), type of road (i.e., local urban), year of analysis (i.e., 2025), and season (i.e., annual). Truck traffic emissions modeling outputs and calculations are included in *Attachment 3*. More details about the updates in emissions calculation methodologies and data are available in the EMFAC2021 Technical Support Document.¹⁷

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates. The earliest year the project would be operating would be 2025.

TAC emissions from truck traffic and onsite activities were computed assuming half of the trucks would travel along Piercy Road at an average speed of 25 mph and the other half would travel on

¹⁶ EMFAC2017 became available for use in March 2018 and approved by the EPA in August 2019. EMFAC2021 has not yet been approved by U.S. EPA at the time this report was prepared.

¹⁷ See CARB 2021: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac>

Hellyer Avenue at an average speed of 40 mph. While on-site, the trucks were assumed to travel a total distance of one mile at a speed of 15 mph and idle for 5 minutes.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and PM_{2.5} concentrations at sensitive receptors in the vicinity of the project area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.¹⁸ The modeling used a five-year meteorological data set (2013-2017) from the San José Airport prepared for use with the AERMOD model by the BAAQMD.

Receptor heights of 5 feet (1.5 meters) were used to represent the breathing height of modeled sensitive receptors.¹⁹ Receptors for this assessment included locations where sensitive populations may be present for extended periods of time (i.e., chronic exposures). This includes the existing single-family residences to the east and southeast of the project site (see Figure 1). Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions.

Construction Sources

DPM and PM_{2.5} concentrations from construction activities during the 2023-2024 and 2024-2025 period were calculated using AERMOD. Construction emissions were modeled as area sources with emissions occurring daily between 7:00 a.m. to 7:00 p.m. Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions. To represent the construction equipment exhaust emissions, an area source emission release height of 20 feet (6 meters) was used for the area sources.²⁰ 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, should be 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, a near-ground level release height of 7 feet (2 meters) was used for the area source. 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

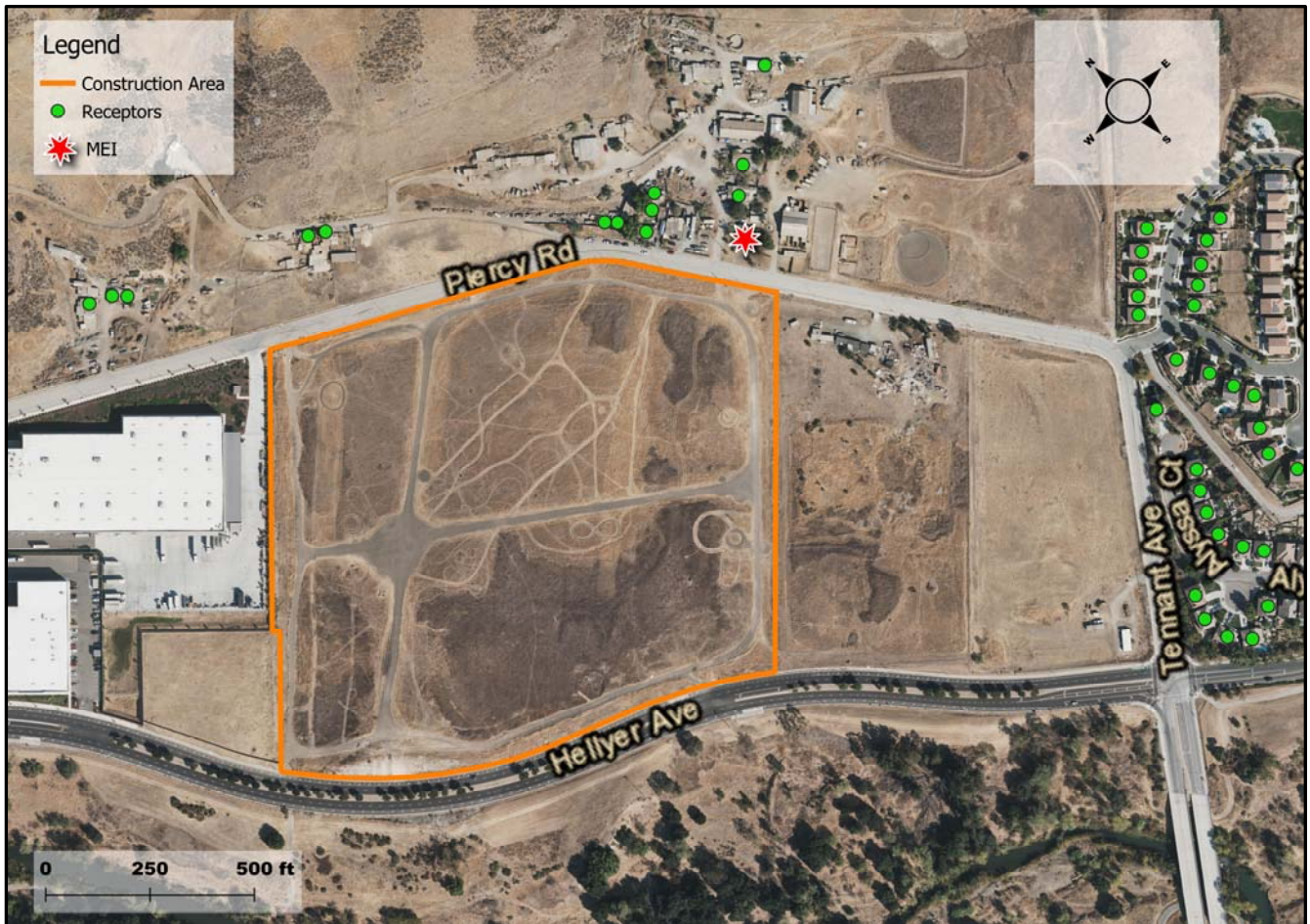
¹⁸ Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May.

¹⁹ Bay Area Air Quality Management District, 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May. Web: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en>

²⁰ 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>

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. *Figure 1* shows the project site, construction area modeled, and receptors.

Figure 1. Locations of the Construction Sites, Off-Site Sensitive Receptors, and Maximum TAC Impact

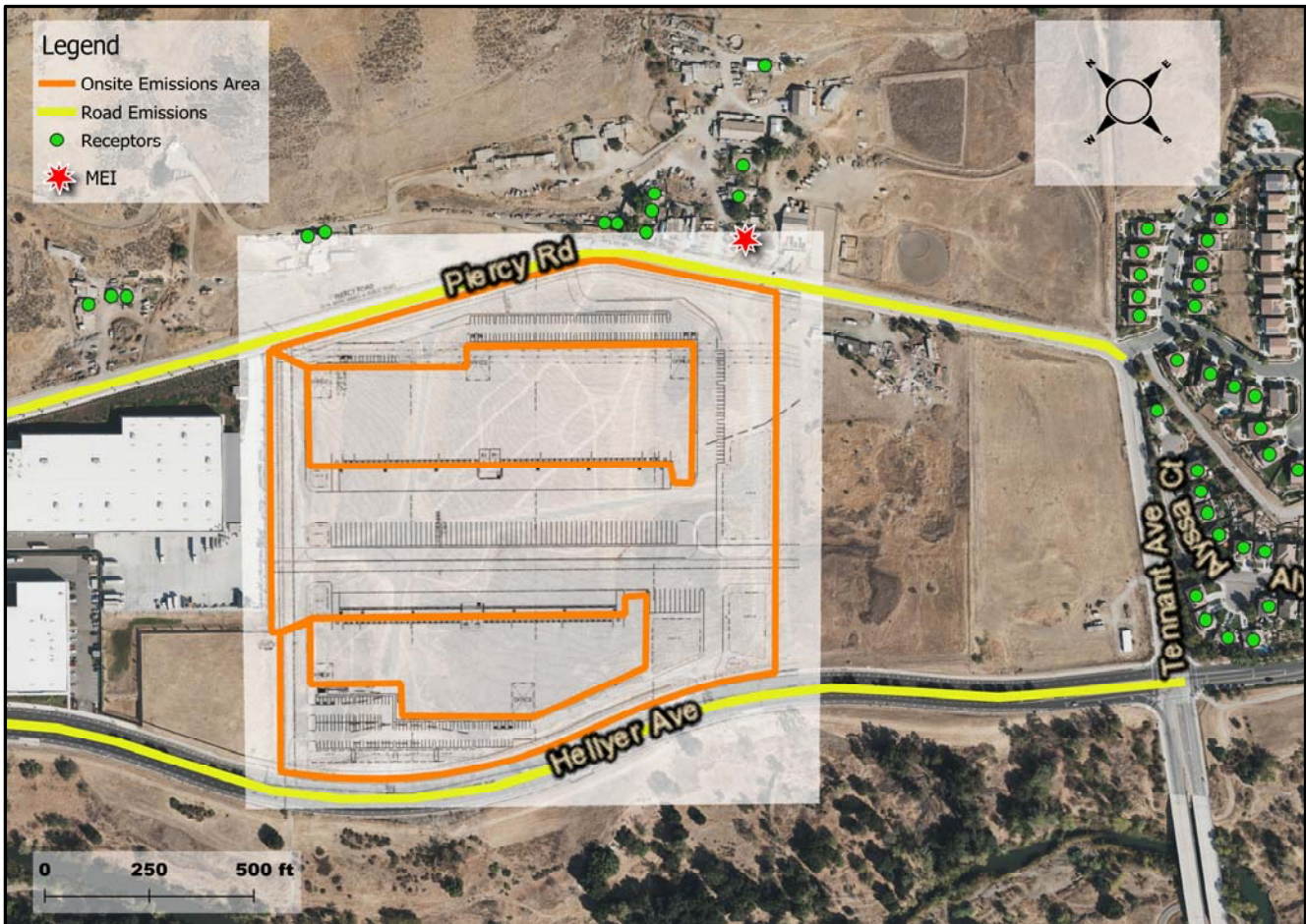


Truck Traffic

Truck traffic generated by the project would access the site either from Piercy Road or via Hellyer Avenue and circulate/idle on site. Onsite TAC emissions (DPM, TOG Exhaust, and PM_{2.5}) were modeled as area sources, while truck traffic on Piercy Road and Hellyer Avenue were modeled as area sources along a line (i.e., line area sources).

An emission release height of 11.5 feet (3.4 meters) was used for truck exhaust area sources and DPM sources, while a release height of 4.3 ft (1.3 meters) was used for fugitive dust emissions.²¹ Initial vertical dimensions of 6.8 meters and 2.9 meters were also used, respectively. TAC emissions, in grams per second, were input into AERMOD assuming 24 hours per day of operation. This yields a lower emissions rate but yields higher ambient concentrations given stable atmospheric conditions present during the nighttime hours. *Figure 2* shows the area sources used for modeling emissions from project operation.

Figure 2. Locations of the Operations Emissions Sources, Off-Site Sensitive Receptors, and Maximum TAC Impact



Health Risks of all Project TAC Sources at Project MEI

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the Office of Environmental Health Hazard Assessment (OEHHA) guidance for age sensitivity factors and exposure parameters as recommended by BAAQMD (see *Attachment I*). Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer

²¹ Values based on EPA modeling guidance.

causing TACs. Third trimester, infant, child, and adult exposures were assumed to occur at all residences during the entire construction period.

Non-cancer health hazards (HI) and maximum PM_{2.5} concentrations were also calculated and identified. 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 reference exposure level of 5 µg/m³.

The maximum modeled annual TAC and PM_{2.5} concentrations, which includes both the DPM and fugitive PM_{2.5} concentrations, were identified at nearby sensitive receptors (as shown in Figures 1 and 2) to find the maximally exposed individuals (MEI). The cumulative risk impacts from a project are the combination of construction and operation sources. These sources include on-site construction activity and truck traffic generated during operation of the project. The maximum project cancer risk impact is computed by adding the construction cancer risk for an infant/child to the increased cancer risk for the project operational conditions from the truck traffic at the MEI. Residential sensitive receptors were assumed to be present near the site for up to 30 years. The cancer risks from construction and operation of the project were summed together. Unlike, the increased maximum cancer risk, the annual PM_{2.5} concentration and HI risks are not cumulative but based on an annual maximum risk for the entirety of the project.

The project MEI was located at a single-family residence located across from the project site on Piercy Road (See Figures 1 and 2). Table 6 summarizes the maximum cancer risks, PM_{2.5} concentrations, and HI for project related construction and operational activities affecting the MEI.

The maximum cancer risks, annual PM_{2.5} concentration and non-cancer hazards at the MEI from the project (construction and operation activities) would be below the single-source significance thresholds. *Attachment 4* to this report includes the emission calculations used for the construction and truck traffic modeling and the cancer risk calculations.

Table 6. Project Health Risk Impacts at the Off-site MEI

Source		Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
Project Impact at MEI				
Project Construction (Years 0-2)	Unmitigated	6.10 (infant)	0.05	<0.01
Project Operation (Years 2-30)	Unmitigated	1.82	<0.01	<0.01
Total/Maximum Project Impact (Years 0-30)		7.92	<0.06	<0.01
<i>BAAQMD Recommended Threshold</i>		10	0.3	1.0
<i>Exceed Threshold?</i>		No	No	No

Cumulative Community Risks of all TAC Sources at the Off-Site Project MEI

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

A review of the readily available daily traffic volume (i.e., ADT) information from the City of San José indicated that neither Piercy Road, Hellyer Avenue, Basking Ridge Avenue, or Tennant Avenue have average daily traffic volumes exceeding 10,000 vehicles.²² A review of BAAQMD's stationary source geographic information systems (GIS) map tool identified one stationary source (i.e., generator) within the influence area. In addition, there is one development project whose project impacts would contribute to the cumulative risk. The risk impacts from this nearby development are included within the analysis. Figure 3 shows the project area, TAC sources within the influence area, and the location of the MEI. Details of the modeling and community risk calculations are included in *Attachment 5*.

Local Roadways

Health risk from roadways with ADT less than 10,000 vehicles per day are considered less than significant as annual TAC emissions from these kinds of roadways are low. A review of the readily available daily traffic volume (i.e., ADT) information from the City of San José indicated that neither Piercy Road, Hellyer Avenue, Basking Ridge Avenue, or Tennant Avenue have average daily traffic volumes exceeding 10,000 vehicles.²³ Therefore, TAC emissions from local roadways in the project area were not analyzed. Higher-volume roadways (i.e., roadways with ADTs above 10,000 vehicles per day) are beyond the 1,000-foot influence area.

BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2020* GIS website,²⁴ which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for new OEHHA guidance. One source, a generator, was identified using this tool. The screening level risks and hazards provided by BAAQMD for this source were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for a Generic Source*. Community risk impacts from stationary sources upon the MEI are reported in Table 7.

Construction Risk Impacts from Nearby Developments

Based on the City's request, the following planned project is located within 1,000 feet of the proposed project:

- **644 & 675 Piercy Road** – this industrial warehouse project site is located at 644 & 675 Piercy Road and is adjacent to the southeast of the proposed project site. The project consists of a 225,000-sf industrial warehouse building with 152 parking spaces. Construction for the 644 & 675 Piercy Road project was proposed to occur between 2023-2024, which means there could be overlapping periods with the proposed project. While the construction schedules may change for both projects, construction could occur simultaneously.

²² <https://data.sanjoseca.gov/dataset/average-daily-traffic1>

²³ <https://data.sanjoseca.gov/dataset/average-daily-traffic1>

²⁴ BAAQMD,

<https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3>

The construction risks and hazard impact values for this development were available from the project’s air quality technical report conducted by *Illingworth & Rodin, Inc.* For the purpose of this analysis, it was conservatively assumed the entire construction period from the proposed project would overlap with the nearby development’s construction schedule. This approach likely provides an overestimate of the health risk and hazard levels because it assumes that maximum impacts from the nearby development occurs concurrently with the proposed project at the proposed project’s MEI. The construction risks reported in that air quality assessment were included in the cumulative risks Table 7.

Summary of Cumulative Health Risk Impact at Construction MEI

Table 7 reports both the project and cumulative community risk impacts at the sensitive receptors most affected by the project (i.e., the MEI). The health risks from project activities (construction and operation) would not exceed the maximum increased cancer risk single-source threshold or cumulative source threshold. Likewise, the maximum annual PM_{2.5} concentration and HI values would not exceed their respective single or cumulative thresholds.

Table 7. Impacts from Combined Sources at Project MEI

Source	Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
Project Impacts			
Total/Maximum Project Impact	7.92	<0.06	<0.01
Cumulative Sources			
ColFin 2019-2D Industrial Owner LLC (Facility ID #24373, Generator), MEI at over 1,000 feet	0.18	<0.01	-
644 & 675 Piercy Road Mitigated Construction Emissions – MEI at 115 feet	0.68	0.01	<0.01
<i>Combined Sources</i>	8.78	<0.08	<0.02
<i>BAAQMD Cumulative Source Threshold</i>	<i>100</i>	<i>0.8</i>	<i>10.0</i>
<i>Exceed Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Supporting Documentation

Attachment 1 is the methodology used to compute community risk impacts, including the methods to compute increased cancer risk from exposure to project emissions.

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant. Also included are any modeling assumptions.

Attachment 3 includes the EMFAC2021 emissions modeling to support CalEEMod modeling.

Attachment 4 is the health risk assessment. This includes the summary of the dispersion modeling and the cancer risk calculations for construction and operation. The AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 5 includes the cumulative community risk calculations from existing sources affecting the construction MEI.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.²⁵ These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.²⁶ This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.²⁷ Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs is calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency and duration of exposure. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day) or liters per kilogram of body weight per 8-hour period for the case of worker or school child exposures. As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools and daycare facilities, BAAQMD recommends using the 95th percentile 8-hour breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of

²⁵ 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.

²⁶ CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

²⁷ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults, a 25-year exposure period is recommended by the BAAQMD. For school children a 9-year exposure period is recommended by the BAAQMD.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

$$\text{Cancer Risk (per million)} = CPF \times \text{Inhalation Dose} \times ASF \times ED/AT \times FAH \times 10^6$$

Where:

- CPF = Cancer potency factor (mg/kg-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)

$$\text{Inhalation Dose} = C_{air} \times DBR^* \times A \times (EF/365) \times 10^{-6}$$

Where:

- C_{air} = concentration in air (µg/m³)
- DBR = daily breathing rate (L/kg body weight-day)
- 8HrBR = 8-hour breathing rate (L/kg body weight-8 hours)
- A = Inhalation absorption factor
- EF = Exposure frequency (days/year)
- 10⁻⁶ = Conversion factor

The health risk parameters used in this evaluation are summarized as follows:

Parameter	Exposure Type →	Infant		Child	Adult
	Age Range →	3 rd Trimester	0<2	2 < 16	16 - 30
DPM Cancer Potency Factor (mg/kg-day) ⁻¹		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80 th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95 th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95 th Percentile Rate		-	1,200	520	240
Inhalation Absorption Factor		1	1	1	1
Averaging Time (years)		70	70	70	70
Exposure Duration (years)		0.25	2	14	14*
Exposure Frequency (days/year)		350	350	350	350*
Age Sensitivity Factor		10	10	3	1
Fraction of Time at Home (FAH)		0.85-1.0	0.85-1.0	0.72-1.0	0.73*

* An 8-hour breathing rate (8HrBR) is used for worker and school child exposures.

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Annual PM_{2.5} Concentrations

While not a TAC, fine particulate matter (PM_{2.5}) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for PM_{2.5} (project level and cumulative) are in terms of an increase in the annual average concentration. When considering PM_{2.5} impacts, the contribution from all sources of PM_{2.5} emissions should be included. For projects with potential impacts from nearby local roadways, the PM_{2.5} impacts should include those from vehicle exhaust emissions, PM_{2.5} generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Modeling Inputs and Outputs

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	430.00	1000sqft	29.00	430,000.00	0
Parking Lot	334.00	Space	0.00	133,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2025
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MWhr)	178	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - San Jose Clean Energy 2020 rate = 178 lb/MWh.

Land Use - Provided construction data - total project acres. Square footage provided by applicant.

Construction Phase - Provided schedule - construction worksheet.

Off-road Equipment - CalEEMod default.

Off-road Equipment - CalEEMod defaults used

Off-road Equipment - CalEEMod defaults used

Off-road Equipment - Provided by construction sheet.

Off-road Equipment - CalEEMod Default

Grading - Grading provided by project description - 168,081-cy imported, 168,102 exported.

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Trips and VMT - EMFAC2021 adjustment 0 trips, building const = 1,644 concrete truck round trips, paving = 861 round trips. Estimated from Google earth overlay of site

Vehicle Trips - Provided trip gen with reduction adjustments and subtracted truck trips (-258).

Vehicle Emission Factors - EMFAC2021 vehicle emissions factors Santa Clara County 2025.

Fleet Mix - EMFAC2021 fleet mix Santa Clara County 2025.

Energy Use - San Jose City Reach Code - no natural gas - convert to electricity.

Water And Wastewater - Wastewater treatment 100% aerobic - no septic tanks or lagoons.

Construction Off-road Equipment Mitigation - BMPs, tier 4 interim mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	45.00	30.00
tblConstructionPhase	NumDays	440.00	300.00
tblConstructionPhase	NumDays	35.00	20.00
tblConstructionPhase	NumDays	35.00	20.00
tblEnergyUse	NT24E	1.07	1.09
tblEnergyUse	NT24NG	0.07	0.00
tblEnergyUse	T24E	0.29	1.28
tblEnergyUse	T24NG	3.37	0.00
tblFleetMix	HHD	6.3770e-003	7.4400e-003
tblFleetMix	HHD	6.3770e-003	7.4400e-003
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LDT2	0.19	0.23
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02

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tblFleetMix	LHD2	5.1580e-003	5.7400e-003
tblFleetMix	LHD2	5.1580e-003	5.7400e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	2.7200e-003	2.5850e-003
tblFleetMix	MH	2.7200e-003	2.5850e-003
tblFleetMix	MHD	8.0300e-003	9.4250e-003
tblFleetMix	MHD	8.0300e-003	9.4250e-003
tblFleetMix	OBUS	8.9300e-004	1.0570e-003
tblFleetMix	OBUS	8.9300e-004	1.0570e-003
tblFleetMix	SBUS	9.0000e-004	6.8400e-004
tblFleetMix	SBUS	9.0000e-004	6.8400e-004
tblFleetMix	UBUS	3.7200e-004	4.1300e-004
tblFleetMix	UBUS	3.7200e-004	4.1300e-004
tblGrading	MaterialExported	0.00	168,102.00
tblGrading	MaterialImported	0.00	168,081.00
tblLandUse	LotAcreage	9.87	29.00
tblLandUse	LotAcreage	3.01	0.00
tblOffRoadEquipment	UsageHours	7.00	0.70
tblOffRoadEquipment	UsageHours	8.00	5.30
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	3.50
tblOffRoadEquipment	UsageHours	8.00	0.80
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	HaulingTripNumber	42,023.00	0.00

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tblTripsAndVMT	VendorTripNumber	92.00	0.00
tblTripsAndVMT	WorkerTripNumber	47.00	0.00
tblTripsAndVMT	WorkerTripNumber	237.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblVehicleEF	HHD	0.02	0.23
tblVehicleEF	HHD	0.05	0.12
tblVehicleEF	HHD	6.32	5.18
tblVehicleEF	HHD	0.41	0.76
tblVehicleEF	HHD	5.9250e-003	6.8500e-004
tblVehicleEF	HHD	1,030.26	813.97
tblVehicleEF	HHD	1,386.58	1,586.83
tblVehicleEF	HHD	0.05	0.02
tblVehicleEF	HHD	0.16	0.13
tblVehicleEF	HHD	0.22	0.25
tblVehicleEF	HHD	6.0000e-006	1.4000e-005
tblVehicleEF	HHD	5.35	3.97
tblVehicleEF	HHD	2.67	1.77
tblVehicleEF	HHD	2.32	2.75
tblVehicleEF	HHD	2.5050e-003	2.0970e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.3970e-003	2.0000e-003
tblVehicleEF	HHD	0.03	0.03

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tblVehicleEF	HHD	8.8870e-003	8.7820e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6100e-004
tblVehicleEF	HHD	8.6000e-005	4.8000e-005
tblVehicleEF	HHD	0.43	0.33
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	3.8000e-005	4.3200e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.5860e-003	7.0990e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.0000e-006	1.6100e-004
tblVehicleEF	HHD	8.6000e-005	4.8000e-005
tblVehicleEF	HHD	0.49	0.59
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.14
tblVehicleEF	HHD	3.8000e-005	4.3200e-004
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	1.5230e-003	1.8410e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.49	0.61
tblVehicleEF	LDA	2.00	2.71
tblVehicleEF	LDA	226.89	237.67
tblVehicleEF	LDA	48.21	61.73
tblVehicleEF	LDA	3.7350e-003	3.8850e-003
tblVehicleEF	LDA	0.02	0.03

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tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.15	0.22
tblVehicleEF	LDA	0.04	7.1370e-003
tblVehicleEF	LDA	1.2360e-003	1.1200e-003
tblVehicleEF	LDA	1.6250e-003	1.8490e-003
tblVehicleEF	LDA	0.02	2.4980e-003
tblVehicleEF	LDA	1.1380e-003	1.0310e-003
tblVehicleEF	LDA	1.4940e-003	1.7000e-003
tblVehicleEF	LDA	0.03	0.26
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.5720e-003	6.9420e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.18	0.27
tblVehicleEF	LDA	2.2440e-003	2.3490e-003
tblVehicleEF	LDA	4.7700e-004	6.1000e-004
tblVehicleEF	LDA	0.03	0.26
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	8.1000e-003	0.01
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.19	0.30
tblVehicleEF	LDT1	3.1240e-003	5.5770e-003
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.77	1.31
tblVehicleEF	LDT1	2.16	4.86
tblVehicleEF	LDT1	272.37	319.18

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tblVehicleEF	LDT1	58.50	84.00
tblVehicleEF	LDT1	5.2980e-003	8.6270e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.06	0.11
tblVehicleEF	LDT1	0.20	0.36
tblVehicleEF	LDT1	0.04	9.2190e-003
tblVehicleEF	LDT1	1.5310e-003	1.8130e-003
tblVehicleEF	LDT1	1.9900e-003	2.7500e-003
tblVehicleEF	LDT1	0.02	3.2270e-003
tblVehicleEF	LDT1	1.4090e-003	1.6690e-003
tblVehicleEF	LDT1	1.8300e-003	2.5290e-003
tblVehicleEF	LDT1	0.07	0.56
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.44
tblVehicleEF	LDT1	0.25	0.50
tblVehicleEF	LDT1	2.6950e-003	3.1550e-003
tblVehicleEF	LDT1	5.7900e-004	8.3000e-004
tblVehicleEF	LDT1	0.07	0.56
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.07	0.44
tblVehicleEF	LDT1	0.27	0.54
tblVehicleEF	LDT2	2.6570e-003	2.5920e-003
tblVehicleEF	LDT2	0.06	0.08

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tblVehicleEF	LDT2	0.69	0.78
tblVehicleEF	LDT2	2.60	3.42
tblVehicleEF	LDT2	290.83	327.62
tblVehicleEF	LDT2	63.01	84.01
tblVehicleEF	LDT2	5.2770e-003	5.6470e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.23	0.31
tblVehicleEF	LDT2	0.04	8.8600e-003
tblVehicleEF	LDT2	1.3020e-003	1.2920e-003
tblVehicleEF	LDT2	1.6610e-003	2.0610e-003
tblVehicleEF	LDT2	0.02	3.1010e-003
tblVehicleEF	LDT2	1.1980e-003	1.1890e-003
tblVehicleEF	LDT2	1.5270e-003	1.8950e-003
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.06	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.26	0.35
tblVehicleEF	LDT2	2.8770e-003	3.2380e-003
tblVehicleEF	LDT2	6.2400e-004	8.3000e-004
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.06	0.00
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.06	0.21

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tblVehicleEF	LDT2	0.29	0.39
tblVehicleEF	LHD1	4.8220e-003	5.1940e-003
tblVehicleEF	LHD1	7.2910e-003	7.2220e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.20
tblVehicleEF	LHD1	0.66	0.82
tblVehicleEF	LHD1	1.01	2.16
tblVehicleEF	LHD1	8.77	8.60
tblVehicleEF	LHD1	764.47	764.97
tblVehicleEF	LHD1	11.28	17.60
tblVehicleEF	LHD1	7.4300e-004	6.3700e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.57	0.59
tblVehicleEF	LHD1	0.29	0.42
tblVehicleEF	LHD1	8.5700e-004	6.8500e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8070e-003	9.4200e-003
tblVehicleEF	LHD1	9.0910e-003	0.01
tblVehicleEF	LHD1	2.3900e-004	2.0600e-004
tblVehicleEF	LHD1	8.2000e-004	6.5600e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4520e-003	2.3550e-003
tblVehicleEF	LHD1	8.6510e-003	0.01
tblVehicleEF	LHD1	2.2000e-004	1.8900e-004
tblVehicleEF	LHD1	1.8120e-003	0.12

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tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4400e-004	0.00
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.06	0.11
tblVehicleEF	LHD1	8.5000e-005	8.4000e-005
tblVehicleEF	LHD1	7.4620e-003	7.4710e-003
tblVehicleEF	LHD1	1.1200e-004	1.7400e-004
tblVehicleEF	LHD1	1.8120e-003	0.12
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.4400e-004	0.00
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.07	0.12
tblVehicleEF	LHD2	2.9270e-003	3.0230e-003
tblVehicleEF	LHD2	6.3420e-003	6.4550e-003
tblVehicleEF	LHD2	7.0910e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.56	0.53
tblVehicleEF	LHD2	0.57	1.20
tblVehicleEF	LHD2	13.74	13.69
tblVehicleEF	LHD2	740.94	811.00
tblVehicleEF	LHD2	7.36	9.64
tblVehicleEF	LHD2	1.7280e-003	1.6800e-003
tblVehicleEF	LHD2	0.07	0.08

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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.68	0.81
tblVehicleEF	LHD2	0.16	0.23
tblVehicleEF	LHD2	1.4520e-003	1.3890e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.2200e-004	9.1000e-005
tblVehicleEF	LHD2	1.3890e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6970e-003	2.6660e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1200e-004	8.4000e-005
tblVehicleEF	LHD2	9.1300e-004	0.06
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8500e-004	0.00
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	LHD2	7.1520e-003	7.8120e-003
tblVehicleEF	LHD2	7.3000e-005	9.5000e-005
tblVehicleEF	LHD2	9.1300e-004	0.06
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8500e-004	0.00

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tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.32	0.16
tblVehicleEF	MCY	0.25	0.18
tblVehicleEF	MCY	18.37	12.31
tblVehicleEF	MCY	9.09	7.97
tblVehicleEF	MCY	210.00	187.27
tblVehicleEF	MCY	60.43	47.31
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.6910e-003
tblVehicleEF	MCY	1.14	0.56
tblVehicleEF	MCY	0.27	0.13
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0310e-003	1.9250e-003
tblVehicleEF	MCY	2.9300e-003	3.4640e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.8970e-003	1.7990e-003
tblVehicleEF	MCY	2.7510e-003	3.2530e-003
tblVehicleEF	MCY	0.90	3.86
tblVehicleEF	MCY	0.67	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.18	1.02
tblVehicleEF	MCY	0.52	3.76
tblVehicleEF	MCY	1.92	1.31
tblVehicleEF	MCY	2.0780e-003	1.8510e-003
tblVehicleEF	MCY	5.9800e-004	4.6800e-004

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tblVehicleEF	MCY	0.90	0.09
tblVehicleEF	MCY	0.67	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.71	1.24
tblVehicleEF	MCY	0.52	3.76
tblVehicleEF	MCY	2.09	1.42
tblVehicleEF	MDV	2.9890e-003	3.3070e-003
tblVehicleEF	MDV	0.06	0.09
tblVehicleEF	MDV	0.72	0.87
tblVehicleEF	MDV	2.79	3.62
tblVehicleEF	MDV	351.34	394.23
tblVehicleEF	MDV	74.92	100.26
tblVehicleEF	MDV	6.9960e-003	7.5830e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.06	0.09
tblVehicleEF	MDV	0.26	0.38
tblVehicleEF	MDV	0.04	8.9720e-003
tblVehicleEF	MDV	1.3680e-003	1.3100e-003
tblVehicleEF	MDV	1.7330e-003	2.0690e-003
tblVehicleEF	MDV	0.02	3.1400e-003
tblVehicleEF	MDV	1.2620e-003	1.2070e-003
tblVehicleEF	MDV	1.5940e-003	1.9020e-003
tblVehicleEF	MDV	0.07	0.34
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.26

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tblVehicleEF	MDV	0.31	0.45
tblVehicleEF	MDV	3.4720e-003	3.8950e-003
tblVehicleEF	MDV	7.4100e-004	9.9100e-004
tblVehicleEF	MDV	0.07	0.34
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.26
tblVehicleEF	MDV	0.34	0.49
tblVehicleEF	MH	8.5740e-003	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.80	1.11
tblVehicleEF	MH	1.94	2.37
tblVehicleEF	MH	1,472.19	1,680.13
tblVehicleEF	MH	17.63	22.07
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.26	1.49
tblVehicleEF	MH	0.24	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.5000e-004	2.9600e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2830e-003	3.3090e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.3000e-004	2.7200e-004

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tblVehicleEF	MH	0.58	30.56
tblVehicleEF	MH	0.05	7.99
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	0.01	0.19
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7400e-004	2.1800e-004
tblVehicleEF	MH	0.58	30.56
tblVehicleEF	MH	0.05	7.99
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.19
tblVehicleEF	MH	0.10	0.12
tblVehicleEF	MHD	3.6170e-003	0.01
tblVehicleEF	MHD	1.5120e-003	9.5360e-003
tblVehicleEF	MHD	8.8700e-003	8.3140e-003
tblVehicleEF	MHD	0.39	0.67
tblVehicleEF	MHD	0.21	0.30
tblVehicleEF	MHD	1.02	1.00
tblVehicleEF	MHD	70.85	158.59
tblVehicleEF	MHD	1,065.91	1,213.65
tblVehicleEF	MHD	8.98	8.21
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.14	0.16
tblVehicleEF	MHD	7.2880e-003	5.8580e-003
tblVehicleEF	MHD	0.40	0.85

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tblVehicleEF	MHD	1.45	1.01
tblVehicleEF	MHD	1.70	1.40
tblVehicleEF	MHD	3.2300e-004	1.7620e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	7.0640e-003	0.01
tblVehicleEF	MHD	1.1300e-004	1.0100e-004
tblVehicleEF	MHD	3.0900e-004	1.6850e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7520e-003	0.01
tblVehicleEF	MHD	1.0400e-004	9.3000e-005
tblVehicleEF	MHD	3.5500e-004	0.02
tblVehicleEF	MHD	0.02	5.6030e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	1.8800e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	6.7200e-004	1.4720e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.9000e-005	8.1000e-005
tblVehicleEF	MHD	3.5500e-004	0.02
tblVehicleEF	MHD	0.02	5.6030e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.8800e-004	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.05	0.05

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tblVehicleEF	OBUS	7.0670e-003	7.5140e-003
tblVehicleEF	OBUS	3.3170e-003	9.5930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.60	0.52
tblVehicleEF	OBUS	0.39	0.44
tblVehicleEF	OBUS	1.79	1.87
tblVehicleEF	OBUS	94.25	87.04
tblVehicleEF	OBUS	1,303.83	1,366.10
tblVehicleEF	OBUS	14.82	14.86
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.39	0.36
tblVehicleEF	OBUS	1.46	0.97
tblVehicleEF	OBUS	1.10	0.99
tblVehicleEF	OBUS	1.2700e-004	4.0400e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.4740e-003	0.02
tblVehicleEF	OBUS	1.4700e-004	1.3100e-004
tblVehicleEF	OBUS	1.2200e-004	3.8700e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.1370e-003	0.01
tblVehicleEF	OBUS	1.3500e-004	1.2100e-004
tblVehicleEF	OBUS	1.0870e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8600e-004	0.00

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tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	8.9500e-004	8.2300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.0870e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8600e-004	0.00
tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	5.7290e-003	0.09
tblVehicleEF	SBUS	5.1560e-003	4.8980e-003
tblVehicleEF	SBUS	2.37	1.69
tblVehicleEF	SBUS	0.47	0.86
tblVehicleEF	SBUS	0.74	0.67
tblVehicleEF	SBUS	345.98	189.05
tblVehicleEF	SBUS	1,037.30	1,017.84
tblVehicleEF	SBUS	4.26	3.78
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	5.0100e-003	4.3540e-003
tblVehicleEF	SBUS	3.34	1.34
tblVehicleEF	SBUS	4.41	2.41
tblVehicleEF	SBUS	0.90	0.49

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tblVehicleEF	SBUS	3.3290e-003	1.2090e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.1000e-005	4.1000e-005
tblVehicleEF	SBUS	3.1850e-003	1.1550e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7110e-003	2.6430e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	4.7000e-005	3.8000e-005
tblVehicleEF	SBUS	5.9800e-004	0.03
tblVehicleEF	SBUS	5.7950e-003	7.7750e-003
tblVehicleEF	SBUS	0.26	0.19
tblVehicleEF	SBUS	2.6700e-004	0.00
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.2940e-003	1.7180e-003
tblVehicleEF	SBUS	9.9090e-003	9.4580e-003
tblVehicleEF	SBUS	4.2000e-005	3.7000e-005
tblVehicleEF	SBUS	5.9800e-004	0.03
tblVehicleEF	SBUS	5.7950e-003	7.7750e-003
tblVehicleEF	SBUS	0.38	0.30
tblVehicleEF	SBUS	2.6700e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03

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tblVehicleEF	UBUS	1.66	0.50
tblVehicleEF	UBUS	1.6700e-003	3.7330e-003
tblVehicleEF	UBUS	12.57	5.88
tblVehicleEF	UBUS	0.14	0.52
tblVehicleEF	UBUS	1,657.49	1,082.15
tblVehicleEF	UBUS	1.39	3.18
tblVehicleEF	UBUS	0.28	0.17
tblVehicleEF	UBUS	1.1100e-003	6.1420e-003
tblVehicleEF	UBUS	0.71	0.30
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.07	0.12
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.2020e-003	5.6850e-003
tblVehicleEF	UBUS	1.5000e-005	1.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01
tblVehicleEF	UBUS	4.9760e-003	5.4350e-003
tblVehicleEF	UBUS	1.4000e-005	1.1000e-005
tblVehicleEF	UBUS	2.4000e-005	0.01
tblVehicleEF	UBUS	2.0100e-004	3.7860e-003
tblVehicleEF	UBUS	1.1000e-005	0.00
tblVehicleEF	UBUS	0.02	0.06
tblVehicleEF	UBUS	4.0000e-005	7.9870e-003
tblVehicleEF	UBUS	6.9810e-003	0.01
tblVehicleEF	UBUS	0.01	8.8540e-003
tblVehicleEF	UBUS	1.4000e-005	3.1000e-005
tblVehicleEF	UBUS	2.4000e-005	0.01

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tblVehicleEF	UBUS	2.0100e-004	3.7860e-003
tblVehicleEF	UBUS	1.1000e-005	0.00
tblVehicleEF	UBUS	1.70	0.57
tblVehicleEF	UBUS	4.0000e-005	7.9870e-003
tblVehicleEF	UBUS	7.6430e-003	0.01
tblVehicleTrips	ST_TR	1.74	4.03
tblVehicleTrips	SU_TR	1.74	4.03
tblVehicleTrips	WD_TR	1.74	4.03
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1216	1.2043	1.2299	2.2100e-003	0.2554	0.0563	0.3117	0.1082	0.0523	0.1605	0.0000	193.2601	193.2601	0.0550	0.0000	194.636
2024	2.3160	0.4299	0.6055	9.3000e-004	0.0000	0.0210	0.0210	0.0000	0.0196	0.0196	0.0000	80.8995	80.8995	0.0204	0.0000	81.4103

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Maximum	2.3160	1.2043	1.2299	2.2100e-003	0.2554	0.0563	0.3117	0.1082	0.0523	0.1605	0.0000	193.2601	193.2601	0.0550	0.0000	194.6360
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Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0410	0.7989	1.4329	2.2100e-003	0.1149	3.9100e-003	0.1188	0.0487	3.9100e-003	0.0526	0.0000	193.2599	193.2599	0.0550	0.0000	194.6358
2024	2.2879	0.3861	0.6610	9.3000e-004	0.0000	1.7000e-003	1.7000e-003	0.0000	1.7000e-003	1.7000e-003	0.0000	80.8994	80.8994	0.0204	0.0000	81.4102
Maximum	2.2879	0.7989	1.4329	2.2100e-003	0.1149	3.9100e-003	0.1188	0.0487	3.9100e-003	0.0526	0.0000	193.2599	193.2599	0.0550	0.0000	194.6358

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.46	27.48	-14.08	0.00	55.00	92.74	63.77	55.00	92.20	69.86	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-28-2023	4-27-2023	0.7664	0.4165
2	4-28-2023	7-27-2023	0.2070	0.1566
3	7-28-2023	10-27-2023	0.2092	0.1583
4	10-28-2023	1-27-2024	0.2052	0.1583
5	1-28-2024	4-27-2024	0.1932	0.1566
6	4-28-2024	7-27-2024	1.4306	1.4084

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7	7-28-2024	9-30-2024	1.0604	1.0591
		Highest	1.4306	1.4084

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9157	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	160.3534	160.3534	0.0297	3.6000e-003	162.1704
Mobile	1.0603	0.8335	7.6327	0.0181	1.7142	0.0125	1.7267	0.4275	0.0116	0.4391	0.0000	1,672.6181	1,672.6181	0.0818	0.0749	1,696.9908
Waste						0.0000	0.0000		0.0000	0.0000	82.0490	0.0000	82.0490	4.8490	0.0000	203.2728
Water						0.0000	0.0000		0.0000	0.0000	35.1811	43.4424	78.6235	0.1291	0.0775	104.9423
Total	2.9760	0.8335	7.6397	0.0181	1.7142	0.0125	1.7267	0.4275	0.0117	0.4392	117.2301	1,876.4275	1,993.6576	5.0897	0.1560	2,167.3908

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Area	1.9157	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	160.3534	160.3534	0.0297	3.6000e-003	162.1704
Mobile	1.0603	0.8335	7.6327	0.0181	1.7142	0.0125	1.7267	0.4275	0.0116	0.4391	0.0000	1,672.6181	1,672.6181	0.0818	0.0749	1,696.9908
Waste						0.0000	0.0000		0.0000	0.0000	82.0490	0.0000	82.0490	4.8490	0.0000	203.2728
Water						0.0000	0.0000		0.0000	0.0000	35.1811	43.4424	78.6235	0.1291	0.0775	104.9423
Total	2.9760	0.8335	7.6397	0.0181	1.7142	0.0125	1.7267	0.4275	0.0117	0.4392	117.2301	1,876.4275	1,993.6576	5.0897	0.1560	2,167.3908

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2023	2/10/2023	5	10	
2	Grading	Grading	2/11/2023	3/24/2023	5	30	
3	Trenching	Trenching	3/25/2023	4/21/2023	5	20	
4	Building Construction	Building Construction	4/22/2023	6/14/2024	5	300	
5	Paving	Paving	6/15/2024	7/12/2024	5	20	
6	Architectural Coating	Architectural Coating	7/13/2024	8/9/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0983	6.3300e-003	0.1046	0.0505	5.8200e-003	0.0563	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

Unmitigated Construction Off-Site

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	3.4800e-003	0.0608	0.1148	1.9000e-004	0.0442	3.1000e-004	0.0445	0.0227	3.1000e-004	0.0230	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1571	0.0000	0.1571	0.0577	0.0000	0.0577	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1571	0.0214	0.1784	0.0577	0.0197	0.0773	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0707	0.0000	0.0707	0.0260	0.0000	0.0260	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.2891	0.5508	9.3000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0152	0.2891	0.5508	9.3000e-004	0.0707	1.5200e-003	0.0722	0.0260	1.5200e-003	0.0275	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Trenching - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4000e-003	0.0308	0.0549	8.0000e-005		1.5200e-003	1.5200e-003		1.3900e-003	1.3900e-003	0.0000	7.2727	7.2727	2.3500e-003	0.0000	7.3315
Total	3.4000e-003	0.0308	0.0549	8.0000e-005		1.5200e-003	1.5200e-003		1.3900e-003	1.3900e-003	0.0000	7.2727	7.2727	2.3500e-003	0.0000	7.3315

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3300e-003	0.0363	0.0626	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2727	7.2727	2.3500e-003	0.0000	7.3315
Total	1.3300e-003	0.0363	0.0626	8.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.2727	7.2727	2.3500e-003	0.0000	7.3315

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.5181	0.6630	1.0100e-003		0.0271	0.0271		0.0254	0.0254	0.0000	87.4592	87.4592	0.0208	0.0000	87.9796
Total	0.0550	0.5181	0.6630	1.0100e-003		0.0271	0.0271		0.0254	0.0254	0.0000	87.4592	87.4592	0.0208	0.0000	87.9796

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0210	0.4127	0.7046	1.0100e-003		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	87.4591	87.4591	0.0208	0.0000	87.9795
Total	0.0210	0.4127	0.7046	1.0100e-003		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	87.4591	87.4591	0.0208	0.0000	87.9795

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3224	0.4411	6.7000e-004		0.0157	0.0157		0.0147	0.0147	0.0000	58.3197	58.3197	0.0138	0.0000	58.6650
Total	0.0343	0.3224	0.4411	6.7000e-004		0.0157	0.0157		0.0147	0.0147	0.0000	58.3197	58.3197	0.0138	0.0000	58.6650

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0140	0.2751	0.4698	6.7000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	58.3196	58.3196	0.0138	0.0000	58.6650
Total	0.0140	0.2751	0.4698	6.7000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	58.3196	58.3196	0.0138	0.0000	58.6650

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2701					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005	6.1000e-004	6.1000e-004	6.1000e-004	6.1000e-004	6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	2.2706	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0603	0.8335	7.6327	0.0181	1.7142	0.0125	1.7267	0.4275	0.0116	0.4391	0.0000	1,672.6181	1,672.6181	0.0818	0.0749	1,696.9908
Unmitigated	1.0603	0.8335	7.6327	0.0181	1.7142	0.0125	1.7267	0.4275	0.0116	0.4391	0.0000	1,672.6181	1,672.6181	0.0818	0.0749	1,696.9908

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,732.90	1,732.90	1,732.90	5,059,221	5,059,221
Total	1,732.90	1,732.90	1,732.90	5,059,221	5,059,221

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.528224	0.040364	0.230108	0.128589	0.023276	0.005740	0.009425	0.007440	0.001057	0.000413	0.022096	0.000684	0.002585
Unrefrigerated Warehouse-No Rail	0.528224	0.040364	0.230108	0.128589	0.023276	0.005740	0.009425	0.007440	0.001057	0.000413	0.022096	0.000684	0.002585

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Parking Lot	46760	3.7754	7.0000e-004	8.0000e-005	3.8182
Unrefrigerated Warehouse-No	1.9393e+06	156.5780	0.0290	3.5200e-003	158.3523
Total		160.3534	0.0297	3.6000e-003	162.1704

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	46760	3.7754	7.0000e-004	8.0000e-005	3.8182
Unrefrigerated Warehouse-No	1.9393e+06	156.5780	0.0290	3.5200e-003	158.3523
Total		160.3534	0.0297	3.6000e-003	162.1704

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9157	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145
Unmitigated	1.9157	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.4000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145
Total	1.9156	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145

Mitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.4000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145
Total	1.9156	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0137	0.0137	4.0000e-005	0.0000	0.0145

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	78.6235	0.1291	0.0775	104.9423
Unmitigated	78.6235	0.1291	0.0775	104.9423

7.2 Water by Land Use

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	99.4375 / 0	78.6235	0.1291	0.0775	104.9423
Total		78.6235	0.1291	0.0775	104.9423

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	99.4375 / 0	78.6235	0.1291	0.0775	104.9423
Total		78.6235	0.1291	0.0775	104.9423

8.0 Waste Detail

550 Piercy Rd, San Jose - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	82.0490	4.8490	0.0000	203.2728
Unmitigated	82.0490	4.8490	0.0000	203.2728

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	404.2	82.0490	4.8490	0.0000	203.2728
Total		82.0490	4.8490	0.0000	203.2728

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	404.2	82.0490	4.8490	0.0000	203.2728
Total		82.0490	4.8490	0.0000	203.2728

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

550 Piercy Rd, San Jose - Truck Only

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Run for truck traffic emissions
- Construction Phase - no construction
- Vehicle Trips - truck traffic only
- Fleet Mix - truck traffic only
- Vehicle Emission Factors - EMFAC2021 vehicle emissions factors Santa Clara County 2025.
- Vehicle Emission Factors -
- Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tbIFleetMix	HHD	6.3770e-003	1.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tbIFleetMix	LDA	0.57	0.00
tbIFleetMix	LDT1	0.06	0.00
tbIFleetMix	LDT2	0.19	0.00
tbIFleetMix	LHD1	0.02	0.00
tbIFleetMix	LHD2	5.1580e-003	0.00
tbIFleetMix	MCY	0.02	0.00
tbIFleetMix	MDV	0.12	0.00
tbIFleetMix	MH	2.7200e-003	0.00
tbIFleetMix	MHD	8.0300e-003	0.00
tbIFleetMix	OBUS	8.9300e-004	0.00
tbIFleetMix	SBUS	9.0000e-004	0.00
tbIFleetMix	UBUS	3.7200e-004	0.00
tbIVehicleEF	HHD	0.02	0.23
tbIVehicleEF	HHD	0.05	0.12
tbIVehicleEF	HHD	6.32	5.18
tbIVehicleEF	HHD	0.41	0.76
tbIVehicleEF	HHD	5.9250e-003	6.8500e-004
tbIVehicleEF	HHD	1,030.26	813.97
tbIVehicleEF	HHD	1,386.58	1,586.83
tbIVehicleEF	HHD	0.05	0.02
tbIVehicleEF	HHD	0.16	0.13
tbIVehicleEF	HHD	0.22	0.25
tbIVehicleEF	HHD	6.0000e-006	1.4000e-005
tbIVehicleEF	HHD	5.35	3.97
tbIVehicleEF	HHD	2.67	1.77
tbIVehicleEF	HHD	2.32	2.75
tbIVehicleEF	HHD	2.5050e-003	2.0970e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	2.3970e-003	2.0000e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8870e-003	8.7820e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.0000e-006	1.6100e-004
tblVehicleEF	HHD	8.6000e-005	4.8000e-005
tblVehicleEF	HHD	0.43	0.33
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	3.8000e-005	4.3200e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.5860e-003	7.0990e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.0000e-006	1.6100e-004
tblVehicleEF	HHD	8.6000e-005	4.8000e-005
tblVehicleEF	HHD	0.49	0.59
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.08	0.14
tblVehicleEF	HHD	3.8000e-005	4.3200e-004
tblVehicleEF	HHD	3.0000e-006	0.00
tblVehicleEF	LDA	1.5230e-003	1.8410e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.49	0.61

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tblVehicleEF	LDA	2.00	2.71
tblVehicleEF	LDA	226.89	237.67
tblVehicleEF	LDA	48.21	61.73
tblVehicleEF	LDA	3.7350e-003	3.8850e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.15	0.22
tblVehicleEF	LDA	0.04	7.1370e-003
tblVehicleEF	LDA	1.2360e-003	1.1200e-003
tblVehicleEF	LDA	1.6250e-003	1.8490e-003
tblVehicleEF	LDA	0.02	2.4980e-003
tblVehicleEF	LDA	1.1380e-003	1.0310e-003
tblVehicleEF	LDA	1.4940e-003	1.7000e-003
tblVehicleEF	LDA	0.03	0.26
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.5720e-003	6.9420e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.18	0.27
tblVehicleEF	LDA	2.2440e-003	2.3490e-003
tblVehicleEF	LDA	4.7700e-004	6.1000e-004
tblVehicleEF	LDA	0.03	0.26
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	8.1000e-003	0.01
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.19	0.30

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tblVehicleEF	LDT1	3.1240e-003	5.5770e-003
tblVehicleEF	LDT1	0.05	0.10
tblVehicleEF	LDT1	0.77	1.31
tblVehicleEF	LDT1	2.16	4.86
tblVehicleEF	LDT1	272.37	319.18
tblVehicleEF	LDT1	58.50	84.00
tblVehicleEF	LDT1	5.2980e-003	8.6270e-003
tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.06	0.11
tblVehicleEF	LDT1	0.20	0.36
tblVehicleEF	LDT1	0.04	9.2190e-003
tblVehicleEF	LDT1	1.5310e-003	1.8130e-003
tblVehicleEF	LDT1	1.9900e-003	2.7500e-003
tblVehicleEF	LDT1	0.02	3.2270e-003
tblVehicleEF	LDT1	1.4090e-003	1.6690e-003
tblVehicleEF	LDT1	1.8300e-003	2.5290e-003
tblVehicleEF	LDT1	0.07	0.56
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.07	0.44
tblVehicleEF	LDT1	0.25	0.50
tblVehicleEF	LDT1	2.6950e-003	3.1550e-003
tblVehicleEF	LDT1	5.7900e-004	8.3000e-004
tblVehicleEF	LDT1	0.07	0.56
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	0.06	0.00

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tblVehicleEF	LDT1	0.02	0.04
tblVehicleEF	LDT1	0.07	0.44
tblVehicleEF	LDT1	0.27	0.54
tblVehicleEF	LDT2	2.6570e-003	2.5920e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.69	0.78
tblVehicleEF	LDT2	2.60	3.42
tblVehicleEF	LDT2	290.83	327.62
tblVehicleEF	LDT2	63.01	84.01
tblVehicleEF	LDT2	5.2770e-003	5.6470e-003
tblVehicleEF	LDT2	0.03	0.04
tblVehicleEF	LDT2	0.05	0.06
tblVehicleEF	LDT2	0.23	0.31
tblVehicleEF	LDT2	0.04	8.8600e-003
tblVehicleEF	LDT2	1.3020e-003	1.2920e-003
tblVehicleEF	LDT2	1.6610e-003	2.0610e-003
tblVehicleEF	LDT2	0.02	3.1010e-003
tblVehicleEF	LDT2	1.1980e-003	1.1890e-003
tblVehicleEF	LDT2	1.5270e-003	1.8950e-003
tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.06	0.00
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.26	0.35
tblVehicleEF	LDT2	2.8770e-003	3.2380e-003
tblVehicleEF	LDT2	6.2400e-004	8.3000e-004

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tblVehicleEF	LDT2	0.06	0.28
tblVehicleEF	LDT2	0.11	0.08
tblVehicleEF	LDT2	0.06	0.00
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.06	0.21
tblVehicleEF	LDT2	0.29	0.39
tblVehicleEF	LHD1	4.8220e-003	5.1940e-003
tblVehicleEF	LHD1	7.2910e-003	7.2220e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.20
tblVehicleEF	LHD1	0.66	0.82
tblVehicleEF	LHD1	1.01	2.16
tblVehicleEF	LHD1	8.77	8.60
tblVehicleEF	LHD1	764.47	764.97
tblVehicleEF	LHD1	11.28	17.60
tblVehicleEF	LHD1	7.4300e-004	6.3700e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.57	0.59
tblVehicleEF	LHD1	0.29	0.42
tblVehicleEF	LHD1	8.5700e-004	6.8500e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8070e-003	9.4200e-003
tblVehicleEF	LHD1	9.0910e-003	0.01
tblVehicleEF	LHD1	2.3900e-004	2.0600e-004
tblVehicleEF	LHD1	8.2000e-004	6.5600e-004

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tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4520e-003	2.3550e-003
tblVehicleEF	LHD1	8.6510e-003	0.01
tblVehicleEF	LHD1	2.2000e-004	1.8900e-004
tblVehicleEF	LHD1	1.8120e-003	0.12
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	9.4400e-004	0.00
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.06	0.11
tblVehicleEF	LHD1	8.5000e-005	8.4000e-005
tblVehicleEF	LHD1	7.4620e-003	7.4710e-003
tblVehicleEF	LHD1	1.1200e-004	1.7400e-004
tblVehicleEF	LHD1	1.8120e-003	0.12
tblVehicleEF	LHD1	0.07	0.03
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.4400e-004	0.00
tblVehicleEF	LHD1	0.10	0.10
tblVehicleEF	LHD1	0.19	0.17
tblVehicleEF	LHD1	0.07	0.12
tblVehicleEF	LHD2	2.9270e-003	3.0230e-003
tblVehicleEF	LHD2	6.3420e-003	6.4550e-003
tblVehicleEF	LHD2	7.0910e-003	0.01
tblVehicleEF	LHD2	0.14	0.14
tblVehicleEF	LHD2	0.56	0.53
tblVehicleEF	LHD2	0.57	1.20

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tblVehicleEF	LHD2	13.74	13.69
tblVehicleEF	LHD2	740.94	811.00
tblVehicleEF	LHD2	7.36	9.64
tblVehicleEF	LHD2	1.7280e-003	1.6800e-003
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.68	0.81
tblVehicleEF	LHD2	0.16	0.23
tblVehicleEF	LHD2	1.4520e-003	1.3890e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.2200e-004	9.1000e-005
tblVehicleEF	LHD2	1.3890e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.6970e-003	2.6660e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1200e-004	8.4000e-005
tblVehicleEF	LHD2	9.1300e-004	0.06
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8500e-004	0.00
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	LHD2	7.1520e-003	7.8120e-003

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tblVehicleEF	LHD2	7.3000e-005	9.5000e-005
tblVehicleEF	LHD2	9.1300e-004	0.06
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.8500e-004	0.00
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	MCY	0.32	0.16
tblVehicleEF	MCY	0.25	0.18
tblVehicleEF	MCY	18.37	12.31
tblVehicleEF	MCY	9.09	7.97
tblVehicleEF	MCY	210.00	187.27
tblVehicleEF	MCY	60.43	47.31
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	7.6910e-003
tblVehicleEF	MCY	1.14	0.56
tblVehicleEF	MCY	0.27	0.13
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.0310e-003	1.9250e-003
tblVehicleEF	MCY	2.9300e-003	3.4640e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.8970e-003	1.7990e-003
tblVehicleEF	MCY	2.7510e-003	3.2530e-003
tblVehicleEF	MCY	0.90	3.86
tblVehicleEF	MCY	0.67	3.56
tblVehicleEF	MCY	0.48	0.00

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tblVehicleEF	MCY	2.18	1.02
tblVehicleEF	MCY	0.52	3.76
tblVehicleEF	MCY	1.92	1.31
tblVehicleEF	MCY	2.0780e-003	1.8510e-003
tblVehicleEF	MCY	5.9800e-004	4.6800e-004
tblVehicleEF	MCY	0.90	0.09
tblVehicleEF	MCY	0.67	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.71	1.24
tblVehicleEF	MCY	0.52	3.76
tblVehicleEF	MCY	2.09	1.42
tblVehicleEF	MDV	2.9890e-003	3.3070e-003
tblVehicleEF	MDV	0.06	0.09
tblVehicleEF	MDV	0.72	0.87
tblVehicleEF	MDV	2.79	3.62
tblVehicleEF	MDV	351.34	394.23
tblVehicleEF	MDV	74.92	100.26
tblVehicleEF	MDV	6.9960e-003	7.5830e-003
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.06	0.09
tblVehicleEF	MDV	0.26	0.38
tblVehicleEF	MDV	0.04	8.9720e-003
tblVehicleEF	MDV	1.3680e-003	1.3100e-003
tblVehicleEF	MDV	1.7330e-003	2.0690e-003
tblVehicleEF	MDV	0.02	3.1400e-003
tblVehicleEF	MDV	1.2620e-003	1.2070e-003
tblVehicleEF	MDV	1.5940e-003	1.9020e-003

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tblVehicleEF	MDV	0.07	0.34
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.26
tblVehicleEF	MDV	0.31	0.45
tblVehicleEF	MDV	3.4720e-003	3.8950e-003
tblVehicleEF	MDV	7.4100e-004	9.9100e-004
tblVehicleEF	MDV	0.07	0.34
tblVehicleEF	MDV	0.12	0.09
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.06	0.26
tblVehicleEF	MDV	0.34	0.49
tblVehicleEF	MH	8.5740e-003	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	0.80	1.11
tblVehicleEF	MH	1.94	2.37
tblVehicleEF	MH	1,472.19	1,680.13
tblVehicleEF	MH	17.63	22.07
tblVehicleEF	MH	0.06	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.26	1.49
tblVehicleEF	MH	0.24	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03

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tblVehicleEF	MH	2.5000e-004	2.9600e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2830e-003	3.3090e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.3000e-004	2.7200e-004
tblVehicleEF	MH	0.58	30.56
tblVehicleEF	MH	0.05	7.99
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	0.01	0.19
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.7400e-004	2.1800e-004
tblVehicleEF	MH	0.58	30.56
tblVehicleEF	MH	0.05	7.99
tblVehicleEF	MH	0.21	0.00
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.19
tblVehicleEF	MH	0.10	0.12
tblVehicleEF	MHD	3.6170e-003	0.01
tblVehicleEF	MHD	1.5120e-003	9.5360e-003
tblVehicleEF	MHD	8.8700e-003	8.3140e-003
tblVehicleEF	MHD	0.39	0.67
tblVehicleEF	MHD	0.21	0.30
tblVehicleEF	MHD	1.02	1.00
tblVehicleEF	MHD	70.85	158.59
tblVehicleEF	MHD	1,065.91	1,213.65

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tblVehicleEF	MHD	8.98	8.21
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.14	0.16
tblVehicleEF	MHD	7.2880e-003	5.8580e-003
tblVehicleEF	MHD	0.40	0.85
tblVehicleEF	MHD	1.45	1.01
tblVehicleEF	MHD	1.70	1.40
tblVehicleEF	MHD	3.2300e-004	1.7620e-003
tblVehicleEF	MHD	0.13	0.05
tblVehicleEF	MHD	7.0640e-003	0.01
tblVehicleEF	MHD	1.1300e-004	1.0100e-004
tblVehicleEF	MHD	3.0900e-004	1.6850e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7520e-003	0.01
tblVehicleEF	MHD	1.0400e-004	9.3000e-005
tblVehicleEF	MHD	3.5500e-004	0.02
tblVehicleEF	MHD	0.02	5.6030e-003
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	1.8800e-004	0.00
tblVehicleEF	MHD	0.01	0.03
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	6.7200e-004	1.4720e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	8.9000e-005	8.1000e-005
tblVehicleEF	MHD	3.5500e-004	0.02
tblVehicleEF	MHD	0.02	5.6030e-003

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tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.8800e-004	0.00
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.02	0.05
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	OBUS	7.0670e-003	7.5140e-003
tblVehicleEF	OBUS	3.3170e-003	9.5930e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.60	0.52
tblVehicleEF	OBUS	0.39	0.44
tblVehicleEF	OBUS	1.79	1.87
tblVehicleEF	OBUS	94.25	87.04
tblVehicleEF	OBUS	1,303.83	1,366.10
tblVehicleEF	OBUS	14.82	14.86
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.13	0.16
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.39	0.36
tblVehicleEF	OBUS	1.46	0.97
tblVehicleEF	OBUS	1.10	0.99
tblVehicleEF	OBUS	1.2700e-004	4.0400e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.4740e-003	0.02
tblVehicleEF	OBUS	1.4700e-004	1.3100e-004
tblVehicleEF	OBUS	1.2200e-004	3.8700e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.1370e-003	0.01

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tblVehicleEF	OBUS	1.3500e-004	1.2100e-004
tblVehicleEF	OBUS	1.0870e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8600e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	8.9500e-004	8.2300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.0870e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8600e-004	0.00
tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	5.7290e-003	0.09
tblVehicleEF	SBUS	5.1560e-003	4.8980e-003
tblVehicleEF	SBUS	2.37	1.69
tblVehicleEF	SBUS	0.47	0.86
tblVehicleEF	SBUS	0.74	0.67
tblVehicleEF	SBUS	345.98	189.05
tblVehicleEF	SBUS	1,037.30	1,017.84
tblVehicleEF	SBUS	4.26	3.78
tblVehicleEF	SBUS	0.05	0.02

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tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	5.0100e-003	4.3540e-003
tblVehicleEF	SBUS	3.34	1.34
tblVehicleEF	SBUS	4.41	2.41
tblVehicleEF	SBUS	0.90	0.49
tblVehicleEF	SBUS	3.3290e-003	1.2090e-003
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	5.1000e-005	4.1000e-005
tblVehicleEF	SBUS	3.1850e-003	1.1550e-003
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.7110e-003	2.6430e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	4.7000e-005	3.8000e-005
tblVehicleEF	SBUS	5.9800e-004	0.03
tblVehicleEF	SBUS	5.7950e-003	7.7750e-003
tblVehicleEF	SBUS	0.26	0.19
tblVehicleEF	SBUS	2.6700e-004	0.00
tblVehicleEF	SBUS	0.08	0.05
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.2940e-003	1.7180e-003
tblVehicleEF	SBUS	9.9090e-003	9.4580e-003
tblVehicleEF	SBUS	4.2000e-005	3.7000e-005
tblVehicleEF	SBUS	5.9800e-004	0.03
tblVehicleEF	SBUS	5.7950e-003	7.7750e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	SBUS	0.38	0.30
tblVehicleEF	SBUS	2.6700e-004	0.00
tblVehicleEF	SBUS	0.09	0.15
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	UBUS	1.66	0.50
tblVehicleEF	UBUS	1.6700e-003	3.7330e-003
tblVehicleEF	UBUS	12.57	5.88
tblVehicleEF	UBUS	0.14	0.52
tblVehicleEF	UBUS	1,657.49	1,082.15
tblVehicleEF	UBUS	1.39	3.18
tblVehicleEF	UBUS	0.28	0.17
tblVehicleEF	UBUS	1.1100e-003	6.1420e-003
tblVehicleEF	UBUS	0.71	0.30
tblVehicleEF	UBUS	0.01	0.04
tblVehicleEF	UBUS	0.07	0.12
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.2020e-003	5.6850e-003
tblVehicleEF	UBUS	1.5000e-005	1.2000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01
tblVehicleEF	UBUS	4.9760e-003	5.4350e-003
tblVehicleEF	UBUS	1.4000e-005	1.1000e-005
tblVehicleEF	UBUS	2.4000e-005	0.01
tblVehicleEF	UBUS	2.0100e-004	3.7860e-003
tblVehicleEF	UBUS	1.1000e-005	0.00
tblVehicleEF	UBUS	0.02	0.06

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tblVehicleEF	UBUS	4.0000e-005	7.9870e-003
tblVehicleEF	UBUS	6.9810e-003	0.01
tblVehicleEF	UBUS	0.01	8.8540e-003
tblVehicleEF	UBUS	1.4000e-005	3.1000e-005
tblVehicleEF	UBUS	2.4000e-005	0.01
tblVehicleEF	UBUS	2.0100e-004	3.7860e-003
tblVehicleEF	UBUS	1.1000e-005	0.00
tblVehicleEF	UBUS	1.70	0.57
tblVehicleEF	UBUS	4.0000e-005	7.9870e-003
tblVehicleEF	UBUS	7.6430e-003	0.01
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	24.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	258.00
tblVehicleTrips	WD_TR	0.00	258.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0670	4.3687	2.0680	0.0312	0.8610	0.0534	0.9144	0.2298	0.0511	0.2809	0.0000	3,127.4084	3,127.4084	0.2445	0.4993	3,282.3206
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0670	4.3687	2.0680	0.0312	0.8610	0.0534	0.9144	0.2298	0.0511	0.2809	0.0000	3,127.4084	3,127.4084	0.2445	0.4993	3,282.3207

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0670	4.3687	2.0680	0.0312	0.8610	0.0534	0.9144	0.2298	0.0511	0.2809	0.0000	3,127.4084	3,127.4084	0.2445	0.4993	3,282.3206
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0670	4.3687	2.0680	0.0312	0.8610	0.0534	0.9144	0.2298	0.0511	0.2809	0.0000	3,127.4084	3,127.4084	0.2445	0.4993	3,282.3207

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0670	4.3687	2.0680	0.0312	0.8610	0.0534	0.9144	0.2298	0.0511	0.2809	0.0000	3,127.4084	3,127.4084	0.2445	0.4993	3,282.3206
Unmitigated	0.0670	4.3687	2.0680	0.0312	0.8610	0.0534	0.9144	0.2298	0.0511	0.2809	0.0000	3,127.4084	3,127.4084	0.2445	0.4993	3,282.3206

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	258.00	258.00	0.00	1,931,904	1,931,904
Total	258.00	258.00	0.00	1,931,904	1,931,904

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

User Defined Industrial	24.00	0.00	0.00	100.00	0.00	0.00	100	0	0
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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Attachment 3: CalEEMod EMFAC2021 Calculations

CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
Site Preparation	18	0	180	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1944	0	0
Grading	20	0	600	0	42,023	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	6480	0	840460
Trenching	5	0	100	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1080	0	0
Building Construction	237	92	71100	27600	3289	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	767880	201480	65780
Architectural Coating	47	0	940	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	10152	0	0
Paving	15	0	300	0	1722	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3240	0	34440

Number of Days Per Year

2023	1/28/23	12/31/23	338	242
2024	1/1/24	8/9/24	222	159
			560	401 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	1/28/2023	2/10/2023	5	10
Grading	2/11/2023	3/24/2023	5	30
Trenching	3/25/2023	4/21/2023	5	20
Building Construction	4/22/2023	6/14/2024	5	300
Architectural Coating	6/15/2024	7/12/2024	5	20
Paving	7/13/2024	8/9/2024	5	20

CalEEMod EMFAC2021 Emission Factors Input													Year	2023	
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
A	CH4_IDLEX		0	0	0	0	0.005543	0.0033	0.012943	0.235880982	0.0074	0	0	0.072953	0
A	CH4_RUNEX	0.002309	0.006952	0.00308	0.004283	0.009183	0.00757	0.009907	0.125647179	0.009278	0.352428219	0.167622	0.09139	0.014501	
A	CH4_STREX	0.069078	0.112042	0.086838	0.107347	0.024108	0.013298	0.009245	9.74075E-08	0.018357	0.003616871	0.187482	0.004689	0.027555	
A	CO_IDLEX		0	0	0	0	0.197776	0.143864	0.673566	5.211988223	0.508403	0	0	1.616318	0
A	CO_RUNEX	0.700623	1.545579	0.885516	1.039538	0.977428	0.617452	0.40377	0.794814833	0.568279	4.150838581	13.08956	0.909279	1.613326	
A	CO_STREX	3.093262	5.633529	3.848359	4.215799	2.151466	1.239679	1.152494	0.000554916	2.060102	0.526628834	8.051197	0.661172	2.629883	
A	CO2_NBIO_IDLEX		0	0	0	0	8.8243	13.864	161.3373	850.5103942	84.54536	0	0	189.5327	0
A	CO2_NBIO_RUNEX	252.3464	331.0934	345.3443	417.2793	800.552	843.5283	1239.598	1643.047907	1407.274	1099.257347	188.3093	1037.354	1694.252	
A	CO2_NBIO_STREX	65.30029	87.93485	88.78208	106.4278	18.04818	10.22295	8.835974	0.026904766	16.13719	3.194751579	49.59811	3.671843	23.09757	
A	NOX_IDLEX		0	0	0	0	0.050397	0.096708	0.924044	4.162978677	0.357592	0	0	1.426205	0
A	NOX_RUNEX	0.042384	0.142891	0.076248	0.114857	0.752921	0.999586	1.219275	1.930480649	1.034947	0.328578112	0.586927	2.743347	1.589794	
A	NOX_STREX	0.244924	0.402457	0.354278	0.457198	0.460153	0.255168	1.396113	2.692504026	0.9621	0.03844891	0.142374	0.466956	0.298917	
A	PM10_IDLEX		0	0	0	0	0.000676	0.001353	0.002542	0.002283218	0.000434	0	0	0.001415	0
A	PM10_PMBW	0.0072	0.009228	0.008874	0.009032	0.078	0.091	0.045469	0.081444361	0.049774	0.110338825	0.012	0.044914	0.044949	
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009403	0.010643	0.012	0.03512271	0.012	0.032470639	0.004	0.010632	0.013172	
A	PM10_RUNEX	0.001228	0.002057	0.001379	0.001449	0.015148	0.024134	0.014931	0.02583284	0.016048	0.006236291	0.001899	0.014252	0.031355	
A	PM10_STREX	0.001982	0.003071	0.00216	0.002277	0.000249	0.000113	0.000113	9.98684E-07	0.000145	1.21051E-05	0.003626	3.81E-05	0.000337	
A	PM25_IDLEX		0	0	0	0	0.000647	0.001295	0.002431	0.002178658	0.000415	0	0	0.001353	0
A	PM25_PMBW	0.00252	0.00323	0.003106	0.003161	0.0273	0.03185	0.015914	0.028505526	0.017421	0.038618589	0.0042	0.01572	0.015732	
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002351	0.002661	0.003	0.008780678	0.003	0.00811766	0.001	0.002658	0.003293	
A	PM25_RUNEX	0.001131	0.001894	0.001269	0.001336	0.014451	0.02307	0.014277	0.024711634	0.015344	0.005962722	0.001778	0.013621	0.029948	
A	PM25_STREX	0.001822	0.002824	0.001986	0.002094	0.000229	0.000103	0.000104	9.18253E-07	0.000133	1.11302E-05	0.003413	3.5E-05	0.00031	
A	ROG_DIURN	0.286612	0.62671	0.296555	0.362629	0.136604	0.071391	0.028425	0.000287604	0.069952	0.009901795	3.947874	0.0249	34.57635	
A	ROG_IDLX	0.085368	0.173317	0.084146	0.099202	0.035317	0.018676	0.006962	8.55424E-05	0.01756	0.003307263	3.5601	0.007023	9.448812	
A	ROG_IDLEX		0	0	0	0	0.022704	0.016516	0.02753	0.332404817	0.040107	0	0	0.177673	0
A	ROG_RESTL		0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.009057	0.031121	0.012293	0.01844	0.096052	0.122502	0.04435	0.019533335	0.051561	0.063067216	1.105923	0.05844	0.094137	
A	ROG_RUNLS	0.215368	0.500663	0.22139	0.277716	0.193896	0.099741	0.056608	0.00077057	0.077935	0.007987303	3.745685	0.016228	0.219535	
A	ROG_STREX	0.319184	0.580507	0.40628	0.544102	0.1203	0.065816	0.052337	5.28839E-07	0.097296	0.012818632	1.392636	0.026728	0.118676	
A	SO2_IDLEX		0	0	0	0	8.59E-05	0.000133	0.001502	0.007460827	0.000801	0	0	0.001727	0
A	SO2_RUNEX	0.002494	0.003273	0.003414	0.004123	0.007823	0.008132	0.011768	0.01488345	0.013465	0.009433556	0.001862	0.009644	0.016619	
A	SO2_STREX	0.000646	0.000869	0.000878	0.001052	0.000178	0.000101	8.74E-05	2.65981E-07	0.00016	3.15834E-05	0.00049	3.63E-05	0.000228	
A	TOG_DIURN	0.286612	0.62671	0.296555	0.362629	0.136604	0.071391	0.028425	0.000287604	0.069952	0.009901795	0.087365	0.0249	34.57635	
A	TOG_HTSK	0.085368	0.173317	0.084146	0.099202	0.035317	0.018676	0.006962	8.55424E-05	0.01756	0.003307263	3.5601	0.007023	9.448812	
A	TOG_IDLEX		0	0	0	0	0.032285	0.022413	0.044141	0.599966232	0.053194	0	0	0.289688	0
A	TOG_RESTL		0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.013192	0.045377	0.017921	0.026821	0.119274	0.143057	0.060502	0.147692373	0.068837	0.423036462	1.324135	0.158821	0.125821	
A	TOG_RUNLS	0.215368	0.500663	0.22139	0.277716	0.193896	0.099741	0.056608	0.00077057	0.077935	0.007987303	3.745685	0.016228	0.219535	
A	TOG_STREX	0.349466	0.63558	0.444825	0.59572	0.131713	0.07206	0.057303	5.79012E-07	0.106527	0.014034789	1.513873	0.029263	0.129936	
A	N2O_IDLEX		0	0	0	0	0.000643	0.00168	0.024829	0.136898066	0.01195	0	0	0.02521	0
A	N2O_RUNEX	0.004499	0.010217	0.006467	0.009242	0.042305	0.083298	0.159885	0.262148415	0.157888	0.166548434	0.040223	0.130452	0.069784	
A	N2O_STREX	0.030882	0.039656	0.038251	0.041954	0.036245	0.020051	0.006097	2.46823E-05	0.015566	0.006082261	0.008379	0.004062	0.030902	

Summary of Construction Traffic Emissions (EMFAC2021)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
	<i>Grams</i>													
Hauling	34062.76	2138405.31	992833.17	14351.49	281263.32	134060.18	415323.50	42321.19	58422.64	100743.83	1585586476.80	129288.22	253037.80	1664223945.36
Vendor	13410.25	443930.16	217878.17	2809.74	60242.52	21707.11	81949.63	9064.59	9654.39	18718.98	304483591.80	17217.06	44831.96	318273943.00
Worker	98245.37	82899.38	1044441.18	2363.84	236442.02	14085.18	250527.20	35577.01	5057.76	40634.77	239127855.26	9065.68	7633.67	241629331.53
Total (g)	145718.39	2665234.86	2255152.52	19525.07	577947.86	169852.47	747800.33	86962.79	73134.79	160097.58	2129197923.85	155570.96	305503.43	2224127219.89
Total (lbs)	321.25	5875.84	4971.76	43.05	1274.16	374.46	1648.62	191.72	161.23	352.95	4694077.91	342.98	673.52	4903361.18
Total (tons)	0.16	2.94	2.49	0.02	0.64	0.19	0.82	0.10	0.08	0.18	2347.04	0.17	0.34	2451.68
Total (MT)											2129.20	0.16	0.31	2224.13

YEAR	<i>Tons</i>													
2023	0.0969	1.7732	1.5004	0.0130	0.3845	0.1130	0.4975	0.0579	0.0487	0.1065	1285.1230	0.0939	0.1844	1342.4196
2024	0.0637	1.1647	0.9855	0.0085	0.2526	0.0742	0.3268	0.0380	0.0320	0.0700	844.0749	0.0617	0.1211	881.7076

CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
Site Preparation	18	0	180	0	0	1	1	1	LD_Mix	HDT_Mix	HHDT	180	0	0
Grading	20	0	600	0	42,023	1	1	1	LD_Mix	HDT_Mix	HHDT	600	0	42023
Trenching	5	0	100	0	0	1	1	1	LD_Mix	HDT_Mix	HHDT	100	0	0
Building Construction	237	92	71100	27600	3289	1	1	1	LD_Mix	HDT_Mix	HHDT	71100	27600	3289
Architectural Coating	47	0	940	0	0	1	1	1	LD_Mix	HDT_Mix	HHDT	940	0	0
Paving	15	0	300	0	1722	1	1	1	LD_Mix	HDT_Mix	HHDT	300	0	1722

Number of Days Per Year

2023	1/28/23	12/31/23	338	242
2024	1/1/24	8/9/24	222	159
			560	401 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	1/28/2023	2/10/2023	5	10
Grading	2/11/2023	3/24/2023	5	30
Trenching	3/25/2023	4/21/2023	5	20
Building Construction	4/22/2023	6/14/2024	5	300
Architectural Coating	6/15/2024	7/12/2024	5	20
Paving	7/13/2024	8/9/2024	5	20

Summary of Construction Traffic Emissions (EMFAC2021) 1 Mile Trips

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2	CH4	N2O	CO2e
	<i>Grams</i>													
Hauling	16606.88	413239.00	282550.07	1050.95	14063.17	6805.07	20868.24	2116.06	3018.52	5134.58	117283286.59	17004.12	18769.91	123301823.69
Vendor	7856.25	170090.45	113673.19	492.68	8252.40	3032.40	11284.80	1241.72	1378.67	2620.40	53866324.99	5432.00	8140.37	56427954.50
Worker	87207.93	28381.71	356961.28	269.34	21892.78	1456.92	23349.70	3294.17	608.75	3902.91	27246040.18	6437.61	3026.77	28308958.45
Total (g)	111671.06	611711.15	753184.54	1812.98	44208.35	11294.39	55502.73	6651.95	5005.94	11657.89	198395651.76	28873.73	29937.05	208038736.64
Total (lbs)	246.19	1348.59	1660.49	4.00	97.46	24.90	122.36	14.67	11.04	25.70	437387.54	63.66	66.00	458646.91
Total (tons)	0.12	0.67	0.83	0.00	0.05	0.01	0.06	0.01	0.01	0.01	218.69	0.03	0.03	229.32
Total (MT)											198.40	0.03	0.03	208.04

YEAR	<i>Tons</i>													
2023	0.0743	0.4070	0.5011	0.0012	0.0294	0.0075	0.0369	0.0044	0.0033	0.0078	119.7459	0.0174	0.0181	125.5662
2024	0.0488	0.2673	0.3291	0.0008	0.0193	0.0049	0.0243	0.0029	0.0022	0.0051	78.6497	0.0114	0.0119	82.4725

CalEEMod EMFAC2021 Fleet Mix Input												Year	2025
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot Unrefrigerated	0.528224	0.040364	0.230108	0.128589	0.023276	0.00574	0.009425	0.00744	0.001057	0.000413	0.022096	0.000684	0.002585
Warehouse-No Rail	0.528224	0.040364	0.230108	0.128589	0.023276	0.00574	0.009425	0.00744	0.001057	0.000413	0.022096	0.000684	0.002585

CalEEMod EMFAC2021 Emission Factors Input													Year	2025
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005194	0.003023	0.013842	0.229861003	0.007514	0	0	0.076044	0
A	CH4_RUNEX	0.001841	0.005577	0.002592	0.003307	0.007222	0.006455	0.009536	0.117132109	0.009593	0.497756349	0.158292	0.090769	0.011159
A	CH4_STREX	0.060617	0.097956	0.077312	0.090898	0.021636	0.011648	0.008314	7.74759E-08	0.016852	0.003733046	0.177199	0.004898	0.025922
A	CO_IDLEX	0	0	0	0	0.195049	0.141036	0.668176	5.176290252	0.524506	0	0	1.692209	0
A	CO_RUNEX	0.606604	1.307107	0.781421	0.865797	0.821777	0.532869	0.296939	0.756535609	0.44406	5.878094388	12.31202	0.85843	1.105311
A	CO_STREX	2.711494	4.855262	3.417927	3.621729	2.164208	1.195973	1.000247	0.000684691	1.872658	0.515229574	7.965438	0.66885	2.373596
A	CO2_NBIO_IDLEX	0	0	0	0	8.602925	13.6884	158.593	813.9732577	87.04447	0	0	189.0522	0
A	CO2_NBIO_RUNEX	237.6743	319.1813	327.6236	394.2305	764.972	810.9955	1213.655	1586.833625	1366.1	1082.148951	187.2679	1017.838	1680.132
A	CO2_NBIO_STREX	61.73081	84.00027	84.00689	100.2571	17.59535	9.640849	8.205073	0.017114195	14.85767	3.177121883	47.30784	3.779827	22.06858
A	NOX_IDLEX	0	0	0	0	0.046413	0.089605	0.847928	3.965211308	0.364367	0	0	1.342517	0
A	NOX_RUNEX	0.033383	0.114688	0.061427	0.085138	0.585978	0.806102	1.006394	1.774057666	0.968278	0.301158242	0.557882	2.407715	1.487818
A	NOX_STREX	0.218516	0.357478	0.309231	0.377914	0.420652	0.228874	1.403485	2.751173324	0.987981	0.039008099	0.129146	0.492123	0.298831
A	PM10_IDLEX	0	0	0	0	0.000685	0.001389	0.001762	0.002096665	0.000404	0	0	0.001209	0
A	PM10_PMBW	0.007137	0.009219	0.00886	0.008972	0.077556	0.090487	0.04526	0.081222471	0.04982	0.123663808	0.012	0.044786	0.044946
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.00942	0.010665	0.012	0.035128275	0.012	0.042521858	0.004	0.010572	0.013235
A	PM10_RUNEX	0.00112	0.001813	0.001292	0.00131	0.01302	0.021567	0.011186	0.025031341	0.015263	0.005684616	0.001925	0.012423	0.028992
A	PM10_STREX	0.001849	0.00275	0.002061	0.002069	0.000206	9.12E-05	0.000101	5.20395E-07	0.000131	1.2108E-05	0.003464	4.08E-05	0.000296
A	PM25_IDLEX	0	0	0	0	0.000656	0.001329	0.001685	0.001999711	0.000387	0	0	0.001155	0
A	PM25_PMBW	0.002498	0.003227	0.003101	0.00314	0.027145	0.03167	0.015841	0.028427865	0.017437	0.043282333	0.0042	0.015675	0.015731
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002355	0.002666	0.003	0.008782069	0.003	0.010630465	0.001	0.002643	0.003309
A	PM25_RUNEX	0.001031	0.001669	0.001189	0.001207	0.012419	0.020616	0.010694	0.023944936	0.014593	0.005434911	0.001799	0.01187	0.027693
A	PM25_STREX	0.0017	0.002528	0.001895	0.001902	0.000189	8.39E-05	9.28E-05	4.78484E-07	0.000121	1.11329E-05	0.003253	3.76E-05	0.000272
A	ROG_DIURN	0.264632	0.562584	0.283569	0.336782	0.120201	0.063181	0.023118	0.000161301	0.068202	0.010220489	3.860886	0.029457	30.55965
A	ROG_HTSK	0.077597	0.155938	0.078131	0.089235	0.030304	0.015991	0.005603	4.7964E-05	0.016021	0.003785535	3.558651	0.007775	7.988502
A	ROG_IDLEX	0	0	0	0	0.021187	0.015503	0.025251	0.32711902	0.04025	0	0	0.185349	0
A	ROG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	ROG_RUNEX	0.006942	0.024558	0.010089	0.013778	0.079612	0.109106	0.032483	0.017799596	0.044456	0.059943987	1.024683	0.053481	0.077128
A	ROG_RUNLS	0.197921	0.439329	0.211003	0.255197	0.16959	0.087065	0.045291	0.000432041	0.075038	0.007986552	3.760078	0.019152	0.188623
A	ROG_STREX	0.273326	0.495732	0.354505	0.447416	0.106693	0.056928	0.045776	4.20633E-07	0.089311	0.013239776	1.305157	0.027862	0.108247
A	SO2_IDLEX	0	0	0	0	8.37E-05	0.000131	0.001472	0.007098942	0.000823	0	0	0.001718	0
A	SO2_RUNEX	0.002349	0.003155	0.003238	0.003895	0.007471	0.007812	0.011512	0.014348163	0.013043	0.00885381	0.001851	0.009458	0.016473
A	SO2_STREX	0.00061	0.00083	0.00083	0.000991	0.000174	9.53E-05	8.11E-05	1.69191E-07	0.000147	3.14091E-05	0.000468	3.74E-05	0.000218
A	TOG_DIURN	0.264632	0.562584	0.283569	0.336782	0.120201	0.063181	0.023118	0.000161301	0.068202	0.010220489	0.08531	0.029457	30.55965
A	TOG_HTSK	0.077597	0.155938	0.078131	0.089235	0.030304	0.015991	0.005603	4.7964E-05	0.016021	0.003785535	3.558651	0.007775	7.988502
A	TOG_IDLEX	0	0	0	0	0.03005	0.020889	0.042478	0.588143126	0.05333	0	0	0.302207	0
A	TOG_RESTL	0	0	0	0	0	0	0	0	0	0	0	0	0
A	TOG_RUNEX	0.010114	0.035818	0.014707	0.020053	0.097862	0.126808	0.046457	0.137213337	0.060464	0.565677917	1.236542	0.152507	0.100988
A	TOG_RUNLS	0.197921	0.439329	0.211003	0.255197	0.16959	0.087065	0.045291	0.000432041	0.075038	0.007986552	3.760078	0.019152	0.188623
A	TOG_STREX	0.299257	0.542764	0.388138	0.489864	0.116815	0.062329	0.050119	4.6054E-07	0.097784	0.014495888	1.419098	0.030505	0.118517
A	N2O_IDLEX	0	0	0	0	0.000637	0.00168	0.024457	0.131219379	0.012456	0	0	0.024955	0
A	N2O_RUNEX	0.003885	0.008627	0.005647	0.007583	0.040583	0.081593	0.156018	0.253304032	0.157183	0.165902975	0.038984	0.126174	0.069141
A	N2O_STREX	0.028873	0.037292	0.035503	0.037751	0.034174	0.018376	0.005858	1.42154E-05	0.01459	0.006142466	0.007691	0.004354	0.031786

Attachment 4: Project Construction and Operation Health Risk Calculations

550 Piercy Industrial San Jose, CA

DPM Emissions and Modeling Emission Rates - Without Controls

Construction Year	Activity	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)	
			(ton/year)	(lb/yr)	(lb/hr)			(g/s)
2023	Construction	DPM_CONST	0.0638	127.6	0.04395	5.54E-03	118799.1	4.66E-08
2024	Construction	DPM_CONST	0.0259	51.9	0.0272	0.0034254	118799.1	2.883E-08

Construction Hours

Weekday hr/day = 12 (7am - 7pm)
 days/yr = Varies
 hours/year = Varies

550 Piercy Industrial San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Without Controls

Construction Year	Activity	Area Source	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate g/s/m ²	
			(ton/year)	(lb/yr)	(lb/hr)			(g/s)
2023	Construction	PM25_CONST	0.1126	225.3	0.07757	9.7733E-03	118799.1	8.227E-08
2024	Construction	PM25_CONST	0.0029	5.8	0.0030	0.0003839	118799.1	3.23E-09

Construction Hours

Weekday hr/day = 12 (7am - 7pm)
 days/yr = Varies
 hours/year = Varies

550 Piercy Industrial San Jose, CA - Construction Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations
Impacts at Off-Site Residential Receptors - 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-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 (µg/m³)
- DBR = daily breathing rate (L/kg body weight-day)
- A = Inhalation absorption factor
- EF = Exposure frequency (days/year)
- 10⁻⁶ = Conversion factor

Values

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Exposure Information			Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult			Adult Cancer Risk (per million)	Maximum				
		Age	DPM Conc (ug/m3)				Modeled		Age Sensitivity Factor		Fugitive Total				
			Year	Annual			Year	Annual			PM2.5	PM2.5	PM2.5		
0	0.25	-0.25 - 0*	2023	0.0218	10	0.30									
1	1	0 - 1	2023	0.0218	10	3.59	2023	0.0218	1	0.06	0.004	0.0448	0.067		
2	1	1 - 2	2024	0.0135	10	2.22	2024	0.0135	1	0.04	0.003	0.0018	0.015		
3	1	2 - 3	2025	0.0000	3	0.00	2025	0.0000	1	0.00	0.000	0.0000	0.000		
4	1	3 - 4	2026	0.0000	3	0.00	2026	0.0000	1	0.00					
5	1	4 - 5	2027	0.0000	3	0.00	2027	0.0000	1	0.00					
6	1	5 - 6	2028	0.0000	3	0.00	2028	0.0000	1	0.00					
7	1	6 - 7	2029	0.0000	3	0.00	2029	0.0000	1	0.00					
8	1	7 - 8	2030	0.0000	3	0.00	2030	0.0000	1	0.00					
9	1	8 - 9	2031	0.0000	3	0.00	2031	0.0000	1	0.00					
10	1	9 - 10	2032	0.0000	3	0.00	2032	0.0000	1	0.00					
11	1	10 - 11	2033	0.0000	3	0.00	2033	0.0000	1	0.00					
12	1	11 - 12	2034	0.0000	3	0.00	2034	0.0000	1	0.00					
13	1	12 - 13	2035	0.0000	3	0.00	2035	0.0000	1	0.00					
14	1	13 - 14	2036	0.0000	3	0.00	2036	0.0000	1	0.00					
15	1	14 - 15	2037	0.0000	3	0.00	2037	0.0000	1	0.00					
16	1	15 - 16	2038	0.0000	3	0.00	2038	0.0000	1	0.00					
17	1	16-17	2039	0.0000	1	0.00	2039	0.0000	1	0.00					
18	1	17-18	2040	0.0000	1	0.00	2040	0.0000	1	0.00					
19	1	18-19	2041	0.0000	1	0.00	2041	0.0000	1	0.00					
20	1	19-20	2042	0.0000	1	0.00	2042	0.0000	1	0.00					
21	1	20-21	2043	0.0000	1	0.00	2043	0.0000	1	0.00					
22	1	21-22	2044	0.0000	1	0.00	2044	0.0000	1	0.00					
23	1	22-23	2045	0.0000	1	0.00	2045	0.0000	1	0.00					
24	1	23-24	2046	0.0000	1	0.00	2046	0.0000	1	0.00					
25	1	24-25	2047	0.0000	1	0.00	2047	0.0000	1	0.00					
26	1	25-26	2048	0.0000	1	0.00	2048	0.0000	1	0.00					
27	1	26-27	2049	0.0000	1	0.00	2049	0.0000	1	0.00					
28	1	27-28	2050	0.0000	1	0.00	2050	0.0000	1	0.00					
29	1	28-29	2051	0.0000	1	0.00	2051	0.0000	1	0.00					
30	1	29-30	2052	0.0000	1	0.00	2052	0.0000	1	0.00					
Total Increased Cancer Risk						6.10				0.10					

* Third trimester of pregnancy

Roadway_EFs

Vehicle Category	VMF Fraction	Diesel VMT Fraction	Gas VMT Fraction															
	Across Category	Within Category	Within Category	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Truck 1	0	0	0															
Truck 2	1	1	0															
Non-Truck	0	0	0															
PM2.5 Ex																		
Dsl																		
NonTruck	0	0	0															
Truck1	0	0	0															
Truck2	0.022500657	0.018569438	0.012977497	0.009435178	0.00781111	0.00734208	0.007697191	0.008876	0.010881	0.013714	0.017377	0.021646	0.026396	0.026396	0			
Gas																		
NonTruck	0	0	0															
Truck1	0	0	0															
Truck2	0	0	0															
PM2.5 Running Exl	0.022500657	0.018569438	0.012977497	0.009435178	0.00781111	0.00734208	0.007697191	0.008876	0.010881	0.013714	0.017377	0.021646	0.026396	0.026396	0			
DPM Running Exha	0.02230034	0.018586053	0.013048699	0.009529316	0.00792529	0.00748223	0.007870994	0.009096	0.011165	0.014082	0.017851	0.02224	0.027123	0.027119	0			
TOG Ex																		
Dsl																		
NonTruck	0	0	0															
Truck1	0	0	0															
Truck2	0.182503218	0.116431373	0.059041851	0.033016969	0.02422087	0.01944322	0.01587616	0.013487	0.012248	0.012135	0.013126	0.014861	0.016996	0.01702	0			
Gas																		
NonTruck	0	0	0															
Truck1	0	0	0															
Truck2	0	0	0															
TOG Running Exha	0.182503218	0.116431373	0.059041851	0.033016969	0.02422087	0.01944322	0.01587616	0.013487	0.012248	0.012135	0.013126	0.014861	0.016996	0.01702	0			
DEOG Running Exh	0.079500385	0.045131277	0.020271274	0.010988561	0.00840856	0.00712109	0.0061679	0.005647	0.005664	0.006337	0.00779	0.009594	0.011535	0.012078	0			
PM2.5 BW																		
Dsl																		
NonTruck	0	0	0															
Truck1	0	0	0															
Truck2	0.039728599	0.039728599	0.039298284	0.0385138	0.0366894	0.03569391	0.030765678	0.027407	0.024049	0.021631	0.021631	0.021631	0.021631	0.021631	0			
Gas																		
NonTruck	0	0	0															
Truck1	0	0	0															
Truck2	0	0	0															
PM2.5 BW (grams)	0.039728599	0.039728599	0.039298284	0.0385138	0.0366894	0.03569391	0.030765678	0.027407	0.024049	0.021631	0.021631	0.021631	0.021631	0.021631	0			
TOG Running Loss Emissions Factor (grams/veh-hour)				ROG Running Loss Emissions Factor (grams/veh-hour)														
Gas				Gas														
NonTruck	0			NonTruck	0													
Truck1	0			Truck1	0													
Truck2	2.216415226			Truck2	0													
TOG Running Loss	2.216415226			ROG Running Loss	0													
HFC Running Loss	0.912190007																	
CH4 Running Loss	0.307678554																	
PM2.5 TW				PM10 TW														
Dsl				Dsl														
NonTruck	0			NonTruck	0													
Truck1	0			Truck1	0													
Truck2	0.007050985			Truck2	0													
Gas				Gas														
NonTruck	0			NonTruck	0													
Truck1	0			Truck1	0													
Truck2	0			Truck2	0													
PM2.5 TW	0.007050985			PM10 TW	0													

File Name: Santa Clara (SF) - 2025 - Annual.EF
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 9/22/2022 10:35
 Area: Santa Clara (SF)
 Analysis Year: 2025
 Season: Annual

Vehicle Category	VMT Fraction	Diesel VMT Gas VMT Fraction	
	Across Category	Within Cat	Within Category
Truck 1	0	0.502	0.498
Truck 2	1	0.936	0.048
Non-Truck	0	0.015	0.951

Road Type: Local Urban
 Silt Loading Factor: CARB 0.32 g/m2
 Precipitation Correction: CARB P = 64 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.010334	0.008941	0.006926	0.005713	0.005336	0.005658	0.006643	0.008288	0.010592	0.013554	0.017174	0.021426	0.026293	0.026297	0.026297
PM10	0.010815	0.009355	0.007245	0.005975	0.005581	0.005917	0.006946	0.008664	0.011072	0.014168	0.017953	0.022396	0.027484	0.027488	0.027488
NOx	10.736494	8.184402	5.798251	4.618439	3.633027	2.752789	2.054658	1.538342	1.203679	1.050572	1.078969	1.287721	1.675912	1.676233	1.676233
CO	2.052331	1.36746	0.824721	0.582013	0.450258	0.351623	0.273627	0.214002	0.171083	0.143648	0.130811	0.134259	0.152571	0.178737	0.215279
HC	0.224556	0.164721	0.105778	0.073113	0.054524	0.041555	0.032022	0.025201	0.020576	0.017776	0.016537	0.017286	0.019554	0.022007	0.024852
TOG	0.263414	0.189858	0.119885	0.082403	0.061732	0.047361	0.036785	0.029268	0.024282	0.021452	0.02051	0.021876	0.025062	0.028537	0.032638
ROG	0.118193	0.076355	0.043558	0.029005	0.022421	0.01799	0.014739	0.012575	0.011443	0.011308	0.012154	0.013971	0.016722	0.019738	0.023341
1,3-Butadiene	0.000291	0.000186	0.000109	0.000074	0.000057	0.000045	0.000037	0.000032	0.00003	0.000029	0.000031	0.000035	0.000042	0.000048	0.000055
Acetaldehyde	0.008475	0.005435	0.003043	0.002028	0.001584	0.001282	0.001056	0.000906	0.00083	0.000828	0.000899	0.001043	0.001256	0.001494	0.001762
Acrolein	0.000017	0.000011	0.000007	0.000005	0.000004	0.000003	0.000002	0.000002	0.000002	0.000002	0.000002	0.000002	0.000002	0.000002	0.000002
Benzene	0.002629	0.001683	0.000965	0.000648	0.000502	0.000404	0.000333	0.000286	0.000262	0.00026	0.00028	0.000322	0.000385	0.00045	0.000523
Diesel PM	0.010242	0.008949	0.006964	0.00577	0.005414	0.005766	0.006793	0.008493	0.010868	0.013918	0.017642	0.022014	0.027017	0.027017	0.027017
Ethylbenzene	0.000497	0.000317	0.000187	0.000127	0.000097	0.000078	0.000064	0.000055	0.000051	0.00005	0.000053	0.00006	0.000072	0.000082	0.000093
Formaldehyde	0.017097	0.010964	0.006147	0.004099	0.003201	0.002589	0.002133	0.001829	0.001676	0.001671	0.001814	0.002103	0.002531	0.003008	0.003545
Naphthalene	0.000216	0.000155	0.000098	0.000067	0.00005	0.000039	0.00003	0.000024	0.00002	0.000018	0.000017	0.000018	0.000021	0.000019	0.000022
POM	0.000161	0.000107	0.000062	0.000042	0.000033	0.000027	0.000024	0.000022	0.000022	0.000024	0.000027	0.000032	0.000038	0.000042	0.000046
DEOG	0.114746	0.073593	0.041161	0.027425	0.021431	0.017346	0.014291	0.012254	0.011228	0.011203	0.012173	0.014123	0.01701	0.02025	0.023904
CO2	2960.315674	2452.362	1938.732	1652.988	1443.337	1270.415	1139.231	1048.629	997.5187	984.9237	1011.445	1074.917	1174.385	1175.09	1175.09
N2O	0.443633	0.368182	0.290661	0.25069	0.219599	0.193623	0.173645	0.159595	0.151417	0.149077	0.152797	0.162368	0.177736	0.177736	0.177736
CH4	0.131703	0.104764	0.071233	0.050009	0.036739	0.027339	0.020401	0.015304	0.011591	0.008928	0.007069	0.006441	0.006599	0.00676	0.006928
BC	0.001573	0.001354	0.001048	0.000865	0.000807	0.000854	0.001001	0.001247	0.001591	0.002034	0.002576	0.003213	0.003942	0.003937	0.003937

Fleet Average Fuel Consumption (gallons/veh-mile)

Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Gasoline	0.020631	0.016748	0.013697	0.011386	0.009733	0.008636	0.008006	0.007749	0.007776	0.008004	0.008332	0.008669	0.008934	0.008934	0.008934
Diesel	0.267527	0.221656	0.174664	0.150591	0.131719	0.115888	0.103714	0.09517	0.090231	0.088875	0.091246	0.097188	0.106681	0.106681	0.106681

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	0.147182
TOG	0.157357
ROG	0.157357
1,3-Butadiene	0
Benzene	0.001574
Ethylbenzene	0.002581
Naphthalene	0.00022
CH4	0.021844
HFC	0.064762

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.006734
PM10	0.026935

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.037557
PM10	0.087633

Fleet Average Road Dust Factors (grams/veh-mile) Local Urban

Pollutant Name	Emission Factor
PM2.5	1.019499
PM10	6.796659

=====**END**=====

OUTPUT

File Name: Santa Clara (SF) - 2025 - Annual.EF
 EMFAC2021/CT-EMFAC2017:
 Run Date: 9/22/2022 10:35
 Area: Santa Clara (SF)
 Analysis Year: 2025
 Season: Annual

Vehicle Category	VMT Fraction	Diesel VMT Gas VMT Fraction	
	Across Category	Within Cat	Within Category
Truck 1	0	0	0
Truck 2	1	1	0
Non-Truck	0	0	0

Road Type: Local Urban
 Silt Loading Factor: CARB 0.32 g/m2
 Precipitation Correction: CARB P = 64 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.022500657	0.018569	0.012977	0.009435	0.007811	0.007342	0.007697	0.008876	0.010881	0.013714	0.017377	0.021646	0.026396	0.026396	0
PM10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO															
HC															
TOG	0.182503218	0.116431	0.059042	0.033017	0.024221	0.019443	0.015876	0.013487	0.012248	0.012135	0.013126	0.014861	0.016996	0.01702	0
ROG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,3-Butadiene															
Acetaldehyde															
Acrolein															
Benzene															
Diesel PM	0.022300342	0.018586	0.013049	0.009529	0.007925	0.007482	0.007871	0.009096	0.011165	0.014082	0.017851	0.02224	0.027123	0.027119	0
Ethylbenzene															
Formaldehyde															
Naphthalene															
POM															
DEOG	0.079500385	0.045131	0.020271	0.010989	0.008409	0.007121	0.006168	0.005647	0.005664	0.006337	0.00779	0.009594	0.011535	0.012078	0
CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N2O	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
CH4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BC															

Fleet Average Fuel Consumption (gallons/veh-mile)

Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
Gasoline	0.078365	0.063375	0.051858	0.043141	0.03688	0.032735	0.030318	0.029332	0.02945	0.030293	0.03156	0.032722	0.033699	0.033699	0.033699
Diesel	0.012738	0.010694	0.008327	0.007164	0.006295	0.005592	0.005108	0.004746	0.004522	0.004479	0.004579	0.004792	0.005144	0.005144	0.005144

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
HC	
TOG	2.216415226
ROG	0
1,3-Butadiene	
Benzene	
Ethylbenzene	
Naphthalene	
CH4	0.307678554
HFC	0.912190007

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.007050985
PM10	0

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph
PM2.5	0.039728599	0.039729	0.039298	0.038514	0.036689	0.035694	0.030766	0.027407	0.024049	0.021631	0.021631	0.021631	0.021631	0.021631	0
PM10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Fleet Average Road Dust Factors, Local Urban (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.01668
PM10	0.111198

=====
 =====END=====

Traffic and EFS

Description	Travel Distance (miles)	Idle Time (min)	Release Height		Initial Vertical Dimension (m)	Initial Vertical Dispersion (m)	Average Speed (mph)	Average Vehicles per Day	Emissions			
			(ft)	(m)					(g/day)	(grams/hr)	(grams/sec)	
Piercy Rd	DPM from Trucks	0.60	0	11.15	3.4	6.8	25	129	0.61	0.03	0.000007	
	PM2.5 from Trucks	0.60	0	11.15	3.4	6.8			0.60	0.03	0.000007	
	TOG Ex from Trucks	0.60	0	11.15	3.4	6.8			1.22	0.05	0.000014	
	TOG Evap from Trucks	0.60	0	11.15	3.4	6.8			NA	NA	NA	
	Fugitive PM from Trucks	0.60	0	4.27	1.30	2.87			1.33	4.68	0.19	0.000054
Hellyer Ave.	DPM from Traffic	0.60	0	11.15	3.4	6.8	40	129	0.70	0.03	8.14855E-06	
	PM2.5 from Traffic	0.60	0	11.15	3.4	6.80			0.69	0.03	7.95186E-06	
	TOG Ex from Traffic	0.60	0	11.15	3.4	6.80			3.16	0.61	0.03	7.02349E-06
	TOG Evap from Traffic	0.60	0	11.15	3.4	6.80			3.16	NA	NA	NA
	Fugitive PM from Traffic	0.60	0	4.27	1.3	2.87			1.33	3.96	0.16	4.58115E-05
Onsite	DPM from Traffic	1.00	5	11.15	3.4	6.80	15	258	32.76	1.37	0.000379174	
	PM2.5 from Traffic	1.00	5	11.15	3.4	6.80			32.74	1.36	0.000378962	
	TOG Ex from Traffic	1.00	5	11.15	3.4	6.80			3.16	61.05	2.54	0.00070664
	TOG Evap from Traffic	1.00	5	11.15	3.4	6.80			3.16	NA	NA	NA
	Fugitive PM from Traffic	1.00	5	4.27	1.3	2.87			1.33	16.26	0.68	0.000188212
2025 Emission Factors		Trucks										
Speed Category		Idle	Travel									
Travel Speed (mph)			15	25	40							
Emissions per vehicle (g/VMT)	DPM	0.022786	0.013049	0.00793	0.00910							
	PM2.5	0.022786	0.012977	0.00781	0.00888							
	TOG Exhaust	0.039574	0.038771	0.01581	0.00784							
	TOG Evap	NA	NA	NA	NA							
	Fugitive PM2.5	NA	0.06303	0.06042	0.0511384							

**550 Piercy Road Industrial Project, San Jose, CA - Truck Impacts to Offsite MEI
DPM Cancer Risk and PM2.5 Calculations
Construction MEI Receptors**

Emissions Years 2025 Efs, Project Traffic Volumes

Receptor Information

Receptor Height (in m) = 1.5 (1st Floor)
Receptor Distances = Offsite Construction MEI Location

Meteorological Conditions

BAAQMD San Jose Airport Meteorological Data 2013 - 2017
Land Use Classification urban
Wind Speed = variable
Wind Direction = variable

Onsite Trucks - Offsite MEI Maximum Concentrations - Floor 1

Meteorological Data Years	TAC Concentrations (µg/m ³)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.0041	0.00763	0

Meteorological Data Years	PM2.5 Concentrations (µg/m ³)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.00661	0.00252	0.00409

Piercy Rd - Offsite MEI Maximum Concentrations - Floor 1

Meteorological Data Years	TAC Concentrations (µg/m ³)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.00035	0.0007	0

Meteorological Data Years	PM2.5 Concentrations (µg/m ³)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.00397	0.00362	0.00035

Hellyer Ave. - Offsite MEI Maximum Concentrations - Floor 1

Meteorological Data Years	TAC Concentrations (µg/m ³)		
	DPM	Exhaust TOG	Evaporative TOG
2013 - 2017	0.00002	0.00001	0

Meteorological Data Years	PM2.5 Concentrations (µg/m ³)		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013 - 2017	0.00012	0.0001	0.00002

550 Piery Road Industrial Project, San Jose, CA - Onsite Truck Impacts to Offsite MEI

DPM Cancer Risk and PM2.5 Calculations

1st Floor Construction MEI Receptors

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

	TAC	CPF
DPM		1.10E+00
Vehicle TOG Exhaust		6.28E-03
Vehicle TOG Evaporative		3.70E-04

Values

Age -> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Cancer Risk by Year - Construction MEI Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information			Age Sensitivity Factor	Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
		Age	Year	Year		DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2023	10	0.0000	0.0000	0.0000	0.000	0.0000	0.00	0.00	
1	1	0 - 1	2023	10		0.0000	0.0000	0.000	0.000	0.00	0.00	
2	1	1 - 2	2024	10		0.0000	0.0000	0.000	0.000	0.00	0.00	
3	1	2 - 3	2025	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
4	1	3 - 4	2026	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
5	1	4 - 5	2027	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
6	1	5 - 6	2028	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
7	1	6 - 7	2029	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
8	1	7 - 8	2030	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
9	1	8 - 9	2031	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
10	1	9 - 10	2032	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
11	1	10 - 11	2033	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
12	1	11 - 12	2034	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
13	1	12 - 13	2035	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
14	1	13 - 14	2036	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
15	1	14 - 15	2037	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
16	1	15 - 16	2038	3	0.0041	0.0076	0.0000	0.106	0.001	0.00	0.11	
17	1	16-17	2039	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
18	1	17-18	2040	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
19	1	18-19	2041	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
20	1	19-20	2042	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
21	1	20-21	2043	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
22	1	21-22	2044	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
23	1	22-23	2045	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
24	1	23-24	2046	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
25	1	24-25	2047	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
26	1	25-26	2048	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
27	1	26-27	2049	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
28	1	27-28	2050	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
29	1	28-29	2051	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
30	1	29-30	2052	1	0.0041	0.0076	0.0000	0.012	0.000	0.00	0.012	
Total Increased Cancer Risk								1.65	0.018	0.000	1.67	

* Third trimester of pregnancy

HI	Maximum	
	Fugitive PM2.5	Total PM2.5
0.001	0.0025	0.007

550 Piercy Road Industrial Project, San Jose, CA - Offsite Truck Impacts to Offsite MEI

DPM Cancer Risk and PM2.5 Calculations

1st Floor Construction MEI Receptors

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

	TAC	CPF
DPM		1.10E+00
Vehicle TOG Exhaust		6.28E-03
Vehicle TOG Evaporative		3.70E-04

Values

Age -> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Cancer Risk by Year - Construction MEI Receptor Location

Exposure Year	Exposure Duration (years)	Maximum - Exposure Information			Age Sensitivity Factor	Concentration (µg/m ³)			Cancer Risk (per million)			TOTAL
		Age	Year	DPM		Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG		
0	0.25	-0.25 - 0*	2023	10	0.0000	0.0000	0.0000	0.000	0.00000	0.00000	0.00000	
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.0000	0.00000	0.0000	
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.0000	0.00000	0.0000	
3	1	2 - 3	2025	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
4	1	3 - 4	2026	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
5	1	4 - 5	2027	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
6	1	5 - 6	2028	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
7	1	6 - 7	2029	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
8	1	7 - 8	2030	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
9	1	8 - 9	2031	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
10	1	9 - 10	2032	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
11	1	10 - 11	2033	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
12	1	11 - 12	2034	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
13	1	12 - 13	2035	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
14	1	13 - 14	2036	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
15	1	14 - 15	2037	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
16	1	15 - 16	2038	3	0.0004	0.0007	0.0000	0.009	0.0001	0.00000	0.0092	
17	1	16-17	2039	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
18	1	17-18	2040	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
19	1	18-19	2041	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
20	1	19-20	2042	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
21	1	20-21	2043	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
22	1	21-22	2044	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
23	1	22-23	2045	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
24	1	23-24	2046	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
25	1	24-25	2047	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
26	1	25-26	2048	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
27	1	26-27	2049	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
28	1	27-28	2050	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
29	1	28-29	2051	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
30	1	29-30	2052	1	0.0004	0.0007	0.0000	0.001	0.00001	0.00000	0.00102	
Total Increased Cancer Risk								0.141	0.0016	0.00000	0.142	

* Third trimester of pregnancy

Maximum Hazard Index Total PM2.5 (µg/m3)
0.0001 0.0040

**550 Piery Road Industrial Project, San Jose, CA - Offsite Truck Impacts to Offsite MEI
DPM Cancer Risk and PM2.5 Calculations
1st Floor Construction MEI Receptors**

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

Age -> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 - 30
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Cancer Risk by Year - Construction MEI Receptor Location

Exposure Year	Maximum - Exposure Information			Age Sensitivity Factor	Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
	Exposure Duration (years)	Age	Year		DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
					0	0.25	-0.25 - 0*	2023	10	0.00	
1	1	0 - 1	2023	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	1 - 2	2024	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	2 - 3	2025	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
4	1	3 - 4	2026	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
5	1	4 - 5	2027	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
6	1	5 - 6	2028	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
7	1	6 - 7	2029	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
8	1	7 - 8	2030	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
9	1	8 - 9	2031	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
10	1	9 - 10	2032	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
11	1	10 - 11	2033	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
12	1	11 - 12	2034	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
13	1	12 - 13	2035	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
14	1	13 - 14	2036	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
15	1	14 - 15	2037	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
16	1	15 - 16	2038	3	0.00002	0.00001	0.0000	0.001	0.000001	0.00	0.0005
17	1	16-17	2039	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
18	1	17-18	2040	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
19	1	18-19	2041	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
20	1	19-20	2042	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
21	1	20-21	2043	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
22	1	21-22	2044	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
23	1	22-23	2045	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
24	1	23-24	2046	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
25	1	24-25	2047	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
26	1	25-26	2048	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
27	1	26-27	2049	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
28	1	27-28	2050	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
29	1	28-29	2051	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
30	1	29-30	2052	1	0.00002	0.00001	0.0000	0.00006	0.0000002	0.00	0.00006
Total Increased Cancer Risk								0.008	0.000023	0.00000	0.008

* Third trimester of pregnancy

Maximum Hazard Index Total PM2.5 (µg/m3)

0.000004 0.0001

Attachment 5: Cumulative Risk Information and Calculations

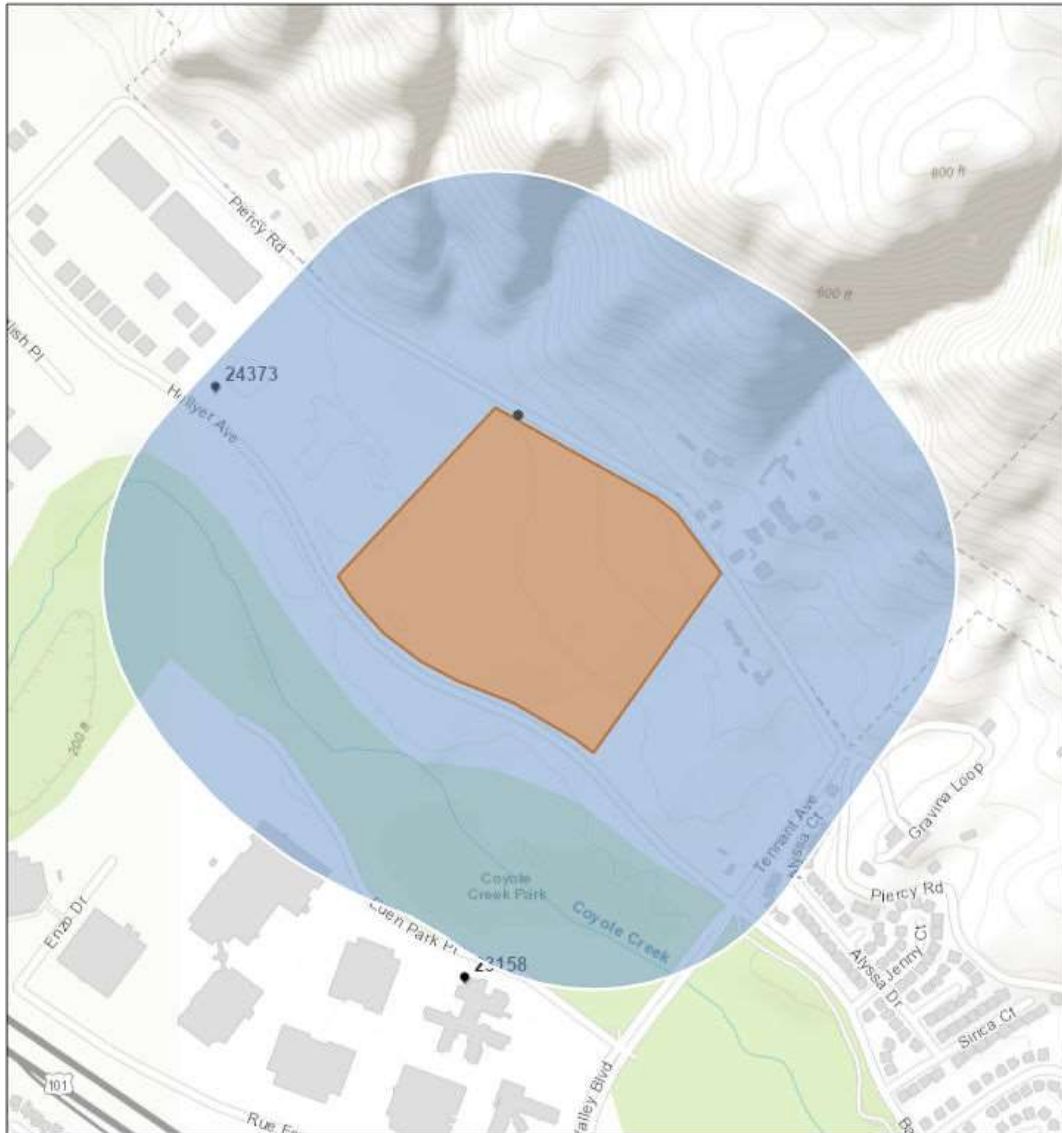


Stationary Source Risk & Hazards Screening Report

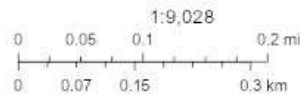
Area of Interest (AOI) Information

Area : 8,893,685.35 ft²

Feb 24 2022 14:19:28 Pacific Standard Time



● Permitted Facilities 2018



City of San Jose, County of Santa Clara, County of Santa Cruz, Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, USGS, METI/NASA, EPA, USDA

Summary

Name	Count	Area(ft ²)	Length(ft)
Permitted Facilities 2018	1	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	24373	ColFin 2019-2D Industrial Owner LLC	6212 Hellyer Avenue	San Jose	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	95138	Santa Clara	4.490	0.010	0.010	Generators	1

Note: The estimated risk and hazard impacts from these sources would be expected to be substantially lower when site specific Health Risk Screening Assessments are conducted.

The screening level map is not recommended for evaluating sensitive land uses such as schools, senior centers, day cares, and health facilities.

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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 conducting 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	2/24/2022
Contact Name	Casey Divine
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x103
Email	cdivine@illingworthrodkin.com
Project Name	550 Piercy Rd
Address	550 Piercy Rd
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Industrial
Project Size (# of units or building square feet)	430-ksf
Comments:	

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

- Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.
- 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.
- Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
- 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.
- List the stationary source information in **Table B** section only.
- 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.
- 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	Construction MEI	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
1,840	24373	ColFin 2019-2D Industrial Owner LLC	6212 Hellyer Avenue	4.49	0.01	0.01		Generator		2020 Dataset	0.04	0.18	0.000	0.00
												0.00	0.000	0.000

Footnotes:

- Maximally exposed individual
- These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
- Each plant may have multiple permits and sources.
- Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
- Fuel codes: 98 = diesel, 189 = Natural Gas.
- If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
- The date that the HRSA was completed.
- Engineer who completed the HRSA. For District purposes only.
- All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
- The HRSA "Chronic Health" number represents the Hazard Index.
- Further information about common sources:
 - Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
 - 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
 - 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.
 - 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
 - Gas stations can be adjusted using BAAQMD's Gas Station Distance Multiplier worksheet.
 - Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
 - This spray booth is considered to be insignificant.

644 & 675 Piercy Project Impacts at 550 Piercy MEI

644 and 675 Piercy Road, San Jose - Project Impacts Unmitigated Maximum Cancer Risk Calculations for Project Construction and Operation 550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters) Residential Exposure (30-year)

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-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 10⁶

Where: C_{air} = concentration in air (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Age ->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR*	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Cancer Risk by Year - Maximum Impact Receptor Location - Construction & Operation

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Cancer Risk (per million)				
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			DPM	Exhaust TOG	Evaporative TOG	Total
					DPM	Exhaust TOG	Evaporative TOG				
3rd Trimester	-	0.25	-0.25 - 0*	10	-	-	-	-	-	-	-
1	2025**	1	1	10	0.00515	0.0000	0.0000	0.85	0.0000	0.0000	0.85
2	2026	1	2	10	0.00088	0.0000	0.0000	0.14	0.0000	0.0000	0.145
3	2027	1	3	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
4	2028	1	4	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
5	2029	1	5	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
6	2030	1	6	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
7	2031	1	7	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
8	2032	1	8	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
9	2033	1	9	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
10	2034	1	10	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
11	2035	1	11	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
12	2036	1	12	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
13	2037	1	13	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
14	2038	1	14	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
15	2039	1	15	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
16	2040	1	16	3	0.00088	0.0000	0.0000	0.02	0.0000	0.0000	0.023
17	2041	1	17	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
18	2042	1	18	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
19	2043	1	19	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
20	2044	1	20	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
21	2045	1	21	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
22	2046	1	22	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
23	2047	1	23	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
24	2048	1	24	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
25	2049	1	25	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
26	2050	1	26	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
27	2051	1	27	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
28	2052	1	28	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
29	2053	1	29	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
30	2054	1	30	1	0.00088	0.0000	0.0000	0.003	0.0000	0.0000	0.003
Total Increased Cancer Risk								1.34	0.0000	0.0000	1.34

* Third trimester of pregnancy

** Construction occurs over an 10-month period during 2023 and 2024.

**644 and 675 Piercy Road, San Jose - Project Construction & Operation Sources - TACs & P1
 AERMOD Risk Modeling Parameters and Maximum Concentrations- Unmitigated
 Maximum Cancer Risk Calculations for Project Construction and Operation
 550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)**

Receptor Information

Number of Receptors 1 at 550 Piercy MEI
 Receptor Level = 1st floor level - 1.5 meters
 Receptor distances = at sensitive residential receptor locations

Meteorological Conditions

BAAQMD San Jose Airport Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

Off-Site MEI Maximum Concentrations from Construction & Operation

Emission Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2023-2024 - Construction	0.00515	0.0000	0.0000
2025-2053 - Project Diesel Trucks	0.00088	0.0000	0.0000
Emission Year	Maximum Total PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)*		
2025-2054	0.014		

* Maximum PM2.5 concentration due to project construction

644 and 675 Piercy Road, San Jose - Project Impacts Mitigated
 Cancer Risk Calculations for Project Construction and Operation- Unmitigated
 at 550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)

Exposure Types and Durations (years) for Cancer Risk Calculations - Project Impacts

Year(s) -> Duration -> Activity ->	2023-2024	2025-2053
	1 Construction	29 Operations- Project Trucks
Exposure Type		
3rd Trimester (10)	0	0
Infant (10)	1	1
Child (3)	0	14
Adult (1)	0	14

Receptor No.	Receptor Coordinates			2023-2024 Construction Concentrations DPM	2025 Project Truck Traffic - On-Site and Local Roads Truck Travel Concentration			2023-2024 Construction Cancer Risk (per million)	2025 Project Truck Traffic Cancer Risk (per million)			Project Truck Traffic Cancer Risk	Total - Cancer Risk		
	UTM-X (m)	UTM-Y (m)	Description		DPM	Exh TOG	Exp TOG		DPM	Exh TOG	Exp TOG		Cancer Risk (per million)		
													Construction	Trucks	TOTAL
1	609093.07	4123328.13	Offsite-1st Floor	0.027610	0.002650	0.00000	0.00000	4.535	1.50108	0.00000	0.00000	1.50108	4.535	1.501	6.036
2	609078.56	4123341.64	Offsite-1st Floor	0.034350	0.002860	0.00000	0.00000	5.642	1.62004	0.00000	0.00000	1.62004	5.642	1.620	7.262
3	609075.05	4123360.16	Offsite-1st Floor	0.048560	0.003340	0.00000	0.00000	7.976	1.89193	0.00000	0.00000	1.89193	7.976	1.892	9.868
4	609080.56	4123380.18	Offsite-1st Floor	0.061700	0.004130	0.00000	0.00000	10.134	2.33942	0.00000	0.00000	2.33942	10.134	2.339	12.473
5	609124.10	4123322.62	Offsite-1st Floor	0.024870	0.002360	0.00000	0.00000	4.085	1.33681	0.00000	0.00000	1.33681	4.085	1.337	5.422
6	609112.09	4123337.14	Offsite-1st Floor	0.031070	0.002260	0.00000	0.00000	5.103	1.50675	0.00000	0.00000	1.50675	5.103	1.507	6.610
7	609152.12	4123352.65	Offsite-1st Floor	0.033670	0.002990	0.00000	0.00000	5.530	1.69367	0.00000	0.00000	1.69367	5.530	1.694	7.224
8	609140.61	4123365.16	Offsite-1st Floor	0.039710	0.003370	0.00000	0.00000	6.522	1.90892	0.00000	0.00000	1.90892	6.522	1.909	8.431
9	609129.60	4123378.17	Offsite-1st Floor	0.047460	0.003850	0.00000	0.00000	7.795	2.18082	0.00000	0.00000	2.18082	7.795	2.181	9.976
10	609122.60	4123398.19	Offsite-1st Floor	0.059350	0.004700	0.00000	0.00000	9.748	2.66230	0.00000	0.00000	2.66230	9.748	2.662	12.410
11	609129.10	4123416.71	Offsite-1st Floor	0.064890	0.005400	0.00000	0.00000	10.658	3.05881	0.00000	0.00000	3.05881	10.658	3.059	13.717
12	609136.61	4123430.72	Offsite-1st Floor	0.067090	0.005920	0.00000	0.00000	11.019	3.35336	0.00000	0.00000	3.35336	11.019	3.353	14.373
13	609147.62	4123444.24	Offsite-1st Floor	0.066140	0.006030	0.00000	0.00000	10.863	3.41567	0.00000	0.00000	3.41567	10.863	3.416	14.279
14	609155.13	4123493.28	Offsite-1st Floor	0.076820	0.006890	0.00000	0.00000	12.617	3.90281	0.00000	0.00000	3.90281	12.617	3.903	16.520
15	609202.17	4123390.69	Offsite-1st Floor	0.028820	0.002790	0.00000	0.00000	4.734	1.58038	0.00000	0.00000	1.58038	4.734	1.580	6.314
16	609191.66	4123413.71	Offsite-1st Floor	0.033000	0.003190	0.00000	0.00000	5.420	1.80696	0.00000	0.00000	1.80696	5.420	1.807	7.227
17	609198.17	4123433.23	Offsite-1st Floor	0.034300	0.003250	0.00000	0.00000	5.634	1.84095	0.00000	0.00000	1.84095	5.634	1.841	7.475
18	609224.69	4123437.23	Offsite-1st Floor	0.030680	0.002820	0.00000	0.00000	5.039	1.59738	0.00000	0.00000	1.59738	5.039	1.597	6.636
19	609213.18	4123452.24	Offsite-1st Floor	0.034060	0.002970	0.00000	0.00000	5.594	1.68234	0.00000	0.00000	1.68234	5.594	1.682	7.277
20	609204.67	4123466.76	Offsite-1st Floor	0.037580	0.003600	0.00000	0.00000	6.172	1.73332	0.00000	0.00000	1.73332	6.172	1.733	7.906
21	609200.17	4123485.77	Offsite-1st Floor	0.041560	0.002990	0.00000	0.00000	6.826	1.69367	0.00000	0.00000	1.69367	6.826	1.694	8.520
22	609190.66	4123506.29	Offsite-1st Floor	0.052270	0.003250	0.00000	0.00000	8.585	1.84095	0.00000	0.00000	1.84095	8.585	1.841	10.426
23	609192.66	4123553.84	Offsite-1st Floor	0.037740	0.002400	0.00000	0.00000	6.199	1.35947	0.00000	0.00000	1.35947	6.199	1.359	7.558
24	609202.67	4123563.84	Offsite-1st Floor	0.028760	0.001800	0.00000	0.00000	4.724	1.01960	0.00000	0.00000	1.01960	4.724	1.020	5.743
25	609215.18	4123573.85	Offsite-1st Floor	0.021140	0.001460	0.00000	0.00000	3.472	0.82701	0.00000	0.00000	0.82701	3.472	0.827	4.299
26	609227.19	4123585.87	Offsite-1st Floor	0.015370	0.001200	0.00000	0.00000	2.524	0.67974	0.00000	0.00000	0.67974	2.524	0.680	3.204
27	609243.21	4123593.87	Offsite-1st Floor	0.011400	0.001010	0.00000	0.00000	1.872	0.57211	0.00000	0.00000	0.57211	1.872	0.572	2.445
28	609286.25	4123560.84	Offsite-1st Floor	0.010420	0.000910	0.00000	0.00000	1.711	0.51547	0.00000	0.00000	0.51547	1.711	0.515	2.227
29	609268.73	4123554.34	Offsite-1st Floor	0.013630	0.001090	0.00000	0.00000	2.239	0.61743	0.00000	0.00000	0.61743	2.239	0.617	2.856
30	609253.72	4123547.33	Offsite-1st Floor	0.017630	0.001310	0.00000	0.00000	2.896	0.74204	0.00000	0.00000	0.74204	2.896	0.742	3.638
31	609240.71	4123536.32	Offsite-1st Floor	0.023290	0.001600	0.00000	0.00000	3.825	0.90631	0.00000	0.00000	0.90631	3.825	0.906	4.732
32	609230.70	4123528.31	Offsite-1st Floor	0.028830	0.001890	0.00000	0.00000	4.735	1.07058	0.00000	0.00000	1.07058	4.735	1.071	5.806
33	609251.72	4123465.25	Offsite-1st Floor	0.026060	0.002130	0.00000	0.00000	4.280	1.20653	0.00000	0.00000	1.20653	4.280	1.207	5.487
34	609260.72	4123479.27	Offsite-1st Floor	0.023120	0.001810	0.00000	0.00000	3.797	1.02527	0.00000	0.00000	1.02527	3.797	1.025	4.823
35	609269.23	4123492.28	Offsite-1st Floor	0.020100	0.001540	0.00000	0.00000	3.301	0.87233	0.00000	0.00000	0.87233	3.301	0.872	4.174
36	609279.24	4123501.79	Offsite-1st Floor	0.017210	0.001330	0.00000	0.00000	2.827	0.75337	0.00000	0.00000	0.75337	2.827	0.753	3.580
37	609290.75	4123511.30	Offsite-1st Floor	0.014370	0.001140	0.00000	0.00000	2.360	0.64575	0.00000	0.00000	0.64575	2.360	0.646	3.006
38	609301.76	4123523.31	Offsite-1st Floor	0.011740	0.000960	0.00000	0.00000	1.928	0.54379	0.00000	0.00000	0.54379	1.928	0.544	2.472
39	609312.77	4123530.81	Offsite-1st Floor	0.009920	0.000850	0.00000	0.00000	1.629	0.48148	0.00000	0.00000	0.48148	1.629	0.481	2.111
40	609323.78	4123540.82	Offsite-1st Floor	0.008220	0.000740	0.00000	0.00000	1.350	0.41917	0.00000	0.00000	0.41917	1.350	0.419	1.769
41	609332.29	4123552.83	Offsite-1st Floor	0.006860	0.000670	0.00000	0.00000	1.127	0.37952	0.00000	0.00000	0.37952	1.127	0.380	1.506
42	609133.68	4123311.98	Offsite-1st Floor	0.021620	0.002220	0.00000	0.00000	3.551	1.25751	0.00000	0.00000	1.25751	3.551	1.258	4.809
43	609144.23	4123299.22	Offsite-1st Floor	0.018610	0.002100	0.00000	0.00000	3.057	1.18954	0.00000	0.00000	1.18954	3.057	1.190	4.246
44	609171.94	4123323.85	Offsite-1st Floor	0.024790	0.002490	0.00000	0.00000	4.072	1.41045	0.00000	0.00000	1.41045	4.072	1.410	5.482
45	609160.51	4123341.45	Offsite-1st Floor	0.029760	0.002770	0.00000	0.00000	4.888	1.56906	0.00000	0.00000	1.56906	4.888	1.569	6.457
46	609218.13	4123381.47	Offsite-1st Floor	0.026290	0.002580	0.00000	0.00000	4.318	1.46143	0.00000	0.00000	1.46143	4.318	1.461	5.779
47	609240.56	4123390.27	Offsite-1st Floor	0.024880	0.002490	0.00000	0.00000	4.086	1.41045	0.00000	0.00000	1.41045	4.086	1.410	5.497
48	609248.48	4123399.07	Offsite-1st Floor	0.024720	0.002470	0.00000	0.00000	4.060	1.39912	0.00000	0.00000	1.39912	4.060	1.399	5.459
49	609259.92	4123410.07	Offsite-1st Floor	0.024100	0.002370	0.00000	0.00000	3.958	1.34248	0.00000	0.00000	1.34248	3.958	1.342	5.301
50	609269.59	4123421.06	Offsite-1st Floor	0.023280	0.002230	0.00000	0.00000	3.824	1.26317	0.00000	0.00000	1.26317	3.824	1.263	5.087
51	609279.71	4123431.62	Offsite-1st Floor	0.021930	0.002040	0.00000	0.00000	3.602	1.15555	0.00000	0.00000	1.15555	3.602	1.156	4.757
52	609288.51	4123443.05	Offsite-1st Floor	0.020430	0.001840	0.00000	0.00000	3.356	1.04226	0.00000	0.00000	1.04226	3.356	1.042	4.398
53	609298.18	4123454.49	Offsite-1st Floor	0.018490	0.001620	0.00000	0.00000	3.037	0.91764	0.00000	0.00000	0.91764	3.037	0.918	3.955
54	609307.86	4123465.05	Offsite-1st Floor	0.016400	0.001410	0.00000	0.00000	2.694	0.79869	0.00000	0.00000	0.79869	2.694	0.799	3.492
55	609318.42	4123476.04	Offsite-1st Floor	0.014210	0.001220	0.00000	0.00000	2.334	0.69106	0.00000	0.00000	0.69106	2.334	0.691	3.025
56	609330.29	4123484.84	Offsite-1st Floor	0.012200	0.001060	0.00000	0.00000	2.004	0.60043	0.00000	0.00000	0.60043	2.004	0.600	2.604
57	609339.09	4123495.84	Offsite-1st Floor	0.010520	0.000930	0.00000	0.00000	1.728	0.52679	0.00000	0.00000	0.52679	1.728	0.527	2.255
58	609350.09	4123505.51	Offsite-1st Floor	0.008930	0.000810	0.00000	0.00000	1.467	0.45882	0.00000	0.00000	0.45882	1.467	0.459	1.926
59	609190.86	4123342.77	Offsite-1st Floor	0.026800	0.002580	0.00000	0.00000	4.402	1.46143	0.00000	0.00000	1.46143	4.402	1.461	5.863
60	609029.76	4123392.55	550 Piercy MEI	0.005150	0.000880	0.00000	0.00000	0.846	0.49847	0.00000	0.00000	0.49847	0.846	0.498	1.344
61	609048.03	4123818.58	Offsite-1st Floor	0.003450	0.000690	0.00000	0.00000	0.567	0.39085	0.00000	0.0000				

644 and 675 Piercy Road, San Jose - Project Impacts
Total PM2.5 Concentrations From Construction and Operation - Unmitigated
550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)

Receptor No.	UTM-X	UTM-Y	Description	Total PM2.5 Concentrations	
				Construction 2023-2024	Operation Trucks 2025-2053
1	609093.07	4123328.13	Offsite-1st Floor	0.075210	0.004330
2	609078.56	4123341.64	Offsite-1st Floor	0.096620	0.004720
3	609075.05	4123360.16	Offsite-1st Floor	0.144900	0.005210
4	609080.56	4123380.18	Offsite-1st Floor	0.192170	0.006020
5	609124.10	4123322.62	Offsite-1st Floor	0.067580	0.003470
6	609112.09	4123337.14	Offsite-1st Floor	0.085330	0.003900
7	609152.12	4123352.65	Offsite-1st Floor	0.091990	0.003970
8	609140.61	4123365.16	Offsite-1st Floor	0.109040	0.004470
9	609129.60	4123378.17	Offsite-1st Floor	0.131450	0.005100
10	609122.60	4123398.19	Offsite-1st Floor	0.167210	0.006150
11	609129.10	4123416.71	Offsite-1st Floor	0.184330	0.006830
12	609136.61	4123430.72	Offsite-1st Floor	0.191280	0.007280
13	609147.62	4123444.24	Offsite-1st Floor	0.188030	0.007240
14	609155.13	4123493.28	Offsite-1st Floor	0.237190	0.007780
15	609202.17	4123390.69	Offsite-1st Floor	0.078460	0.003270
16	609191.66	4123413.71	Offsite-1st Floor	0.090000	0.003680
17	609198.17	4123433.23	Offsite-1st Floor	0.093600	0.003700
18	609224.69	4123437.23	Offsite-1st Floor	0.083520	0.003210
19	609213.18	4123452.24	Offsite-1st Floor	0.092930	0.003360
20	609204.67	4123466.76	Offsite-1st Floor	0.102830	0.003450
21	609200.17	4123485.77	Offsite-1st Floor	0.114210	0.003370
22	609190.66	4123506.29	Offsite-1st Floor	0.146010	0.003720
23	609192.66	4123553.84	Offsite-1st Floor	0.104180	0.002740
24	609202.67	4123563.84	Offsite-1st Floor	0.078290	0.002090
25	609215.18	4123573.85	Offsite-1st Floor	0.056960	0.001690
26	609227.19	4123585.87	Offsite-1st Floor	0.041070	0.001390
27	609243.21	4123593.87	Offsite-1st Floor	0.030200	0.001160
28	609286.25	4123560.84	Offsite-1st Floor	0.027530	0.001050
29	609268.73	4123554.34	Offsite-1st Floor	0.036230	0.001260
30	609253.72	4123547.33	Offsite-1st Floor	0.047170	0.001510
31	609240.71	4123536.32	Offsite-1st Floor	0.062780	0.001850
32	609230.70	4123528.31	Offsite-1st Floor	0.078240	0.002190
33	609251.72	4123465.25	Offsite-1st Floor	0.070910	0.002400
34	609260.72	4123479.27	Offsite-1st Floor	0.062860	0.002030
35	609269.23	4123492.28	Offsite-1st Floor	0.054480	0.001730
36	609279.24	4123501.79	Offsite-1st Floor	0.046470	0.001490
37	609290.75	4123511.30	Offsite-1st Floor	0.038620	0.001270
38	609301.76	4123523.31	Offsite-1st Floor	0.031360	0.001080
39	609312.77	4123530.81	Offsite-1st Floor	0.026350	0.000950
40	609323.78	4123540.82	Offsite-1st Floor	0.021700	0.000840
41	609332.29	4123552.83	Offsite-1st Floor	0.017990	0.000750
42	609133.68	4123311.98	Offsite-1st Floor	0.058410	0.003270
43	609144.23	4123299.22	Offsite-1st Floor	0.049990	0.003090
44	609171.94	4123323.85	Offsite-1st Floor	0.067280	0.003380
45	609160.51	4123341.45	Offsite-1st Floor	0.081070	0.003700
46	609218.13	4123381.47	Offsite-1st Floor	0.071440	0.003030
47	609240.56	4123390.27	Offsite-1st Floor	0.067580	0.002900
48	609248.48	4123399.07	Offsite-1st Floor	0.067120	0.002860
49	609259.92	4123410.07	Offsite-1st Floor	0.065420	0.002730
50	609269.59	4123421.06	Offsite-1st Floor	0.063200	0.002560
51	609279.71	4123431.62	Offsite-1st Floor	0.059510	0.002320
52	609288.51	4123443.05	Offsite-1st Floor	0.055430	0.002090
53	609298.18	4123454.49	Offsite-1st Floor	0.050120	0.001830
54	609307.86	4123465.05	Offsite-1st Floor	0.044360	0.001590
55	609318.42	4123476.04	Offsite-1st Floor	0.038290	0.001370
56	609330.29	4123484.84	Offsite-1st Floor	0.032740	0.001190
57	609339.09	4123495.84	Offsite-1st Floor	0.028080	0.001040
58	609350.09	4123505.51	Offsite-1st Floor	0.023720	0.000910
59	609190.86	4123342.77	Offsite-1st Floor	0.072720	0.003310
60	609029.76	4123792.55	550 Piercy MEI	0.013850	0.000990
61	609048.03	4123818.58	Offsite-1st Floor	0.009180	0.000770
62	609069.80	4123833.09	Offsite-1st Floor	0.006820	0.000630
63	608999.99	4123830.84	Offsite-1st Floor	0.012170	0.001020
64	608981.97	4123843.60	Offsite-1st Floor	0.011950	0.001080
65	608996.23	4123855.11	Offsite-1st Floor	0.010010	0.000910
66	608985.72	4123868.87	Offsite-1st Floor	0.009250	0.000870
67	609002.16	4123913.26	Offsite-1st Floor	0.005870	0.000560
		Max		0.23719	0.00778

**644 and 675 Piery Road, San Jose - Project Impacts - Mitigated
 Maximum Cancer Risk Calculations for Project Construction and Operation
 550 Piery MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)
 Residential Exposure (30-year)**

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Age -> Parameter	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - <16	16 - 30
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Risk by Year - Maximum Impact Receptor Location - Construction & Operation

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information								
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			Cancer Risk (per million)				
					DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total	
3rd Trimester	-	0.25	-0.25 - 0*	10	-	-	-	-	-	-	-	-
1	2025**	1	1	10	0.0011	0.0000	0.0000	0.181	0.0000	0.0000	0.18	
2	2026	1	2	10	0.0009	0.0000	0.0000	0.145	0.0000	0.0000	0.145	
3	2027	1	3	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
4	2028	1	4	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
5	2029	1	5	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
6	2030	1	6	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
7	2031	1	7	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
8	2032	1	8	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
9	2033	1	9	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
10	2034	1	10	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
11	2035	1	11	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
12	2036	1	12	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
13	2037	1	13	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
14	2038	1	14	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
15	2039	1	15	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
16	2040	1	16	3	0.0009	0.0000	0.0000	0.023	0.0000	0.0000	0.023	
17	2041	1	17	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
18	2042	1	18	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
19	2043	1	19	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
20	2044	1	20	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
21	2045	1	21	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
22	2046	1	22	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
23	2047	1	23	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
24	2048	1	24	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
25	2049	1	25	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
26	2050	1	26	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
27	2051	1	27	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
28	2052	1	28	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
29	2053	1	29	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
30	2054	1	30	1	0.0009	0.0000	0.0000	0.003	0.0000	0.0000	0.003	
Total Increased Cancer Risk									0.68	0.00	0.00	0.68

* Third trimester of pregnancy

** Construction occurs over an 10-month period during 2023 and 2024.

**644 and 675 Piercy Road, San Jose - Project Construction & Operation Sources - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations- Mitigated
 Maximum Cancer Risk Calculations for Project Construction and Operation
 550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)**

Receptor Information

Number of Receptors 1 at 550 Piercy MEI
 Receptor Level = 1st floor level - 1.5 meters
 Receptor distances = at sensitive residential receptor locations

Meteorological Conditions

BAAQMD San Jose Airport Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

Off-Site MEI Maximum Concentrations from Construction & Operation

Emission Years	Concentration (µg/m ³)		
	DPM	Exhaust TOG	Evaporative TOG
2023-2024 - Construction	0.00110	0.0000	0.0000
2025-2053 - Project Diesel Trucks	0.00088	0.0000	0.0000
Emission Year	Maximum Total PM2.5 Concentration (µg/m3)*		
2025-2054	0.005		

* Maximum PM2.5 concentration due to project construction

644 and 675 Piercy Road, San Jose - Project Impacts Mitigated
 Cancer Risk Calculations for Project Construction and Operation-Mitigated
 at 550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)

Exposure Types and Durations (years) for Cancer Risk Calculations - Project Impacts

Year(s) -> Duration -> Activity ->	2023-2024	2025-2053
	1 Construction	
Exposure Type		
3rd Trimester (10)	0	0
Infant (10)	1	1
Child (3)	0	14
Adult (1)	0	14

Receptor No.	Receptor Coordinates		Description	2024-2025 Construction Concentrations DPM	2024-2025 Project Truck Traffic - On-Site and Local Roads Truck Travel Concentration			2024-2025 Construction Cancer Risk (per million)	2024-2025 Project Truck Traffic Cancer Risk (per million)			Project Truck Traffic Cancer Risk	Total - Cancer Risk		
	UTM-X (m)	UTM-Y (m)			DPM	Exh TOG	Evap TOG		DPM	Exh TOG	Evap TOG		Cancer Risk (per million)		
													Construction	Trucks	TOTAL
1	609093.07	4123328.13	Offsite-1st Floor	0.005910	0.002650	0.00000	0.00000	0.971	1.50108	0.00000	0.00000	1.50108	0.971	1.501	2.47
2	609078.56	4123341.64	Offsite-1st Floor	0.007350	0.002860	0.00000	0.00000	1.207	1.62004	0.00000	0.00000	1.62004	1.207	1.620	2.83
3	609075.05	4123360.16	Offsite-1st Floor	0.010390	0.003340	0.00000	0.00000	1.707	1.89193	0.00000	0.00000	1.89193	1.707	1.892	3.60
4	609080.56	4123380.18	Offsite-1st Floor	0.013200	0.004130	0.00000	0.00000	2.168	2.33942	0.00000	0.00000	2.33942	2.168	2.339	4.51
5	609124.10	4123322.62	Offsite-1st Floor	0.005320	0.002360	0.00000	0.00000	0.874	1.33681	0.00000	0.00000	1.33681	0.874	1.337	2.21
6	609112.09	4123337.14	Offsite-1st Floor	0.006650	0.002660	0.00000	0.00000	1.092	1.50675	0.00000	0.00000	1.50675	1.092	1.507	2.60
7	609152.12	4123352.65	Offsite-1st Floor	0.007200	0.002990	0.00000	0.00000	1.183	1.69367	0.00000	0.00000	1.69367	1.183	1.694	2.88
8	609140.61	4123365.16	Offsite-1st Floor	0.008490	0.003370	0.00000	0.00000	1.394	1.90892	0.00000	0.00000	1.90892	1.394	1.909	3.30
9	609129.60	4123378.17	Offsite-1st Floor	0.010150	0.003850	0.00000	0.00000	1.667	2.18082	0.00000	0.00000	2.18082	1.667	2.181	3.85
10	609122.60	4123398.19	Offsite-1st Floor	0.012700	0.004700	0.00000	0.00000	2.086	2.66230	0.00000	0.00000	2.66230	2.086	2.662	4.75
11	609129.10	4123416.71	Offsite-1st Floor	0.013880	0.005400	0.00000	0.00000	2.280	3.05881	0.00000	0.00000	3.05881	2.280	3.059	5.34
12	609136.61	4123430.72	Offsite-1st Floor	0.014350	0.005920	0.00000	0.00000	2.357	3.35336	0.00000	0.00000	3.35336	2.357	3.353	5.71
13	609147.62	4123444.24	Offsite-1st Floor	0.014150	0.006030	0.00000	0.00000	2.324	3.41567	0.00000	0.00000	3.41567	2.324	3.416	5.74
14	609155.13	4123493.28	Offsite-1st Floor	0.016430	0.006890	0.00000	0.00000	2.699	3.90281	0.00000	0.00000	3.90281	2.699	3.903	6.60
15	609202.17	4123390.69	Offsite-1st Floor	0.006170	0.002790	0.00000	0.00000	1.013	1.58038	0.00000	0.00000	1.58038	1.013	1.580	2.59
16	609191.66	4123413.71	Offsite-1st Floor	0.007060	0.003190	0.00000	0.00000	1.160	1.80696	0.00000	0.00000	1.80696	1.160	1.807	2.97
17	609198.17	4123433.23	Offsite-1st Floor	0.007340	0.003250	0.00000	0.00000	1.206	1.84095	0.00000	0.00000	1.84095	1.206	1.841	3.05
18	609224.69	4123437.23	Offsite-1st Floor	0.006560	0.002820	0.00000	0.00000	1.077	1.59738	0.00000	0.00000	1.59738	1.077	1.597	2.67
19	609213.18	4123452.24	Offsite-1st Floor	0.007280	0.002970	0.00000	0.00000	1.196	1.68234	0.00000	0.00000	1.68234	1.196	1.682	2.88
20	609204.67	4123466.76	Offsite-1st Floor	0.008040	0.003060	0.00000	0.00000	1.321	1.73332	0.00000	0.00000	1.73332	1.321	1.733	3.05
21	609200.17	4123485.77	Offsite-1st Floor	0.008990	0.003290	0.00000	0.00000	1.465	1.69367	0.00000	0.00000	1.69367	1.465	1.694	3.15
22	609190.66	4123506.29	Offsite-1st Floor	0.011180	0.003250	0.00000	0.00000	1.836	1.84095	0.00000	0.00000	1.84095	1.836	1.841	3.68
23	609192.66	4123553.84	Offsite-1st Floor	0.008070	0.002400	0.00000	0.00000	1.325	1.35947	0.00000	0.00000	1.35947	1.325	1.359	2.68
24	609202.67	4123563.84	Offsite-1st Floor	0.006150	0.001800	0.00000	0.00000	1.010	1.01960	0.00000	0.00000	1.01960	1.010	1.020	2.03
25	609215.18	4123573.85	Offsite-1st Floor	0.004520	0.001460	0.00000	0.00000	0.742	0.82701	0.00000	0.00000	0.82701	0.742	0.827	1.57
26	609227.19	4123585.87	Offsite-1st Floor	0.003290	0.001200	0.00000	0.00000	0.540	0.67974	0.00000	0.00000	0.67974	0.540	0.680	1.22
27	609243.21	4123593.87	Offsite-1st Floor	0.002440	0.001010	0.00000	0.00000	0.401	0.57211	0.00000	0.00000	0.57211	0.401	0.572	0.97
28	609286.25	4123560.84	Offsite-1st Floor	0.002230	0.000910	0.00000	0.00000	0.366	0.51547	0.00000	0.00000	0.51547	0.366	0.515	0.88
29	609268.73	4123554.34	Offsite-1st Floor	0.002910	0.001090	0.00000	0.00000	0.478	0.61743	0.00000	0.00000	0.61743	0.478	0.617	1.10
30	609253.72	4123547.33	Offsite-1st Floor	0.003770	0.001310	0.00000	0.00000	0.619	0.74204	0.00000	0.00000	0.74204	0.619	0.742	1.36
31	609240.71	4123536.32	Offsite-1st Floor	0.004980	0.001600	0.00000	0.00000	0.818	0.90631	0.00000	0.00000	0.90631	0.818	0.906	1.72
32	609230.70	4123528.31	Offsite-1st Floor	0.006170	0.001890	0.00000	0.00000	1.013	1.07058	0.00000	0.00000	1.07058	1.013	1.071	2.08
33	609251.72	4123465.25	Offsite-1st Floor	0.005570	0.002130	0.00000	0.00000	0.915	1.20653	0.00000	0.00000	1.20653	0.915	1.207	2.12
34	609260.72	4123479.27	Offsite-1st Floor	0.004950	0.001810	0.00000	0.00000	0.816	1.02527	0.00000	0.00000	1.02527	0.813	1.025	1.84
35	609269.23	4123492.28	Offsite-1st Floor	0.004300	0.001540	0.00000	0.00000	0.703	0.87233	0.00000	0.00000	0.87233	0.706	0.872	1.58
36	609279.24	4123501.79	Offsite-1st Floor	0.003680	0.001330	0.00000	0.00000	0.604	0.75337	0.00000	0.00000	0.75337	0.604	0.753	1.36
37	609290.75	4123511.30	Offsite-1st Floor	0.003070	0.001140	0.00000	0.00000	0.504	0.64575	0.00000	0.00000	0.64575	0.504	0.646	1.15
38	609301.76	4123523.31	Offsite-1st Floor	0.002510	0.000960	0.00000	0.00000	0.412	0.54379	0.00000	0.00000	0.54379	0.412	0.544	0.96
39	609312.77	4123530.81	Offsite-1st Floor	0.002120	0.000850	0.00000	0.00000	0.348	0.48148	0.00000	0.00000	0.48148	0.348	0.481	0.83
40	609323.78	4123540.82	Offsite-1st Floor	0.001760	0.000740	0.00000	0.00000	0.289	0.41917	0.00000	0.00000	0.41917	0.289	0.419	0.71
41	609332.29	4123552.83	Offsite-1st Floor	0.001470	0.000670	0.00000	0.00000	0.241	0.37952	0.00000	0.00000	0.37952	0.241	0.380	0.62
42	609133.68	4123311.98	Offsite-1st Floor	0.004620	0.002220	0.00000	0.00000	0.759	1.25751	0.00000	0.00000	1.25751	0.759	1.258	2.02
43	609144.23	4123299.22	Offsite-1st Floor	0.003980	0.002100	0.00000	0.00000	0.654	1.18954	0.00000	0.00000	1.18954	0.654	1.190	1.84
44	609171.94	4123323.85	Offsite-1st Floor	0.005300	0.002490	0.00000	0.00000	0.871	1.41045	0.00000	0.00000	1.41045	0.871	1.410	2.28
45	609160.51	4123341.45	Offsite-1st Floor	0.006370	0.002770	0.00000	0.00000	1.046	1.56906	0.00000	0.00000	1.56906	1.046	1.569	2.62
46	609218.13	4123381.47	Offsite-1st Floor	0.005620	0.002580	0.00000	0.00000	0.923	1.46143	0.00000	0.00000	1.46143	0.923	1.461	2.38
47	609240.56	4123390.27	Offsite-1st Floor	0.005320	0.002490	0.00000	0.00000	0.874	1.41045	0.00000	0.00000	1.41045	0.874	1.410	2.28
48	609248.48	4123399.07	Offsite-1st Floor	0.005290	0.002470	0.00000	0.00000	0.869	1.39912	0.00000	0.00000	1.39912	0.869	1.399	2.27
49	609259.92	4123410.07	Offsite-1st Floor	0.005160	0.002370	0.00000	0.00000	0.848	1.34248	0.00000	0.00000	1.34248	0.848	1.342	2.19
50	609269.59	4123421.06	Offsite-1st Floor	0.004980	0.002230	0.00000	0.00000	0.818	1.26317	0.00000	0.00000	1.26317	0.818	1.263	2.08
51	609279.71	4123431.62	Offsite-1st Floor	0.004690	0.002040	0.00000	0.00000	0.770	1.15555	0.00000	0.00000	1.15555	0.770	1.156	1.93
52	609288.51	4123443.05	Offsite-1st Floor	0.004370	0.001840	0.00000	0.00000	0.718	1.04226	0.00000	0.00000	1.04226	0.718	1.042	1.76
53	609298.18	4123454.49	Offsite-1st Floor	0.003960	0.001620	0.00000	0.00000	0.650	0.91764	0.00000	0.00000	0.91764	0.650	0.918	1.57
54	609307.86	4123465.05	Offsite-1st Floor	0.003510	0.001410	0.00000	0.00000	0.577	0.79869	0.00000	0.00000	0.79869	0.577	0.799	1.38
55	609318.42	4123476.04	Offsite-1st Floor	0.003040	0.001220	0.00000	0.00000	0.499	0.69106	0.00000	0.00000	0.69106	0.499	0.691	1.19
56	609330.29	4123484.84	Offsite-1st Floor	0.002610	0.001060	0.00000	0.00000	0.429	0.60043	0.00000	0.00000	0.60043	0.429	0.600	1.03
57	609339.09	4123495.84	Offsite-1st Floor	0.002250	0.000930	0.00000	0.00000	0.370	0.52679	0.00000	0.00000	0.52679	0.370	0.527	0.90
58	609350.09	4123505.51	Offsite-1st Floor	0.001910	0.000810	0.00000	0.00000	0.314	0.45882	0.00000	0.00000	0.45882	0.314	0.459	0.77
59	609190.86	4123342.77	Offsite-1st Floor	0.005730	0.002580	0.00000	0.00000	0.941	1.46143	0.00000	0.00000	1.46143	0.941	1.461	2.40
60	609029.76	4123792.55	550 Piercy MEI	0.001100	0.000880	0.00000	0.00000	0.181	0.49847	0.00000	0.00000	0.49847	0.181	0.498	0.68
61	609048.03	4123818.58	Offsite-1st Floor	0.000740	0.000690	0.00000	0.00000	0.122	0.39085	0.00000	0.00000	0.39085	0.122	0.391	0.51
62	609069.														

644 and 675 Piercy Road, San Jose - Project Impacts
Total PM2.5 Concentrations From Construction and Operation - Mitigated
550 Piercy MEI Receptor (#60) - First Floor Level Receptor (1.5 meters)

Receptor No.	UTM-X	UTM-Y	Description	Total PM2.5 Concentrations	
				Construction 2023-2024	Operation Trucks 2025-2053
1	609093.07	4123328.13	Offsite-1st Floor	0.024570	0.004330
2	609078.56	4123341.64	Offsite-1st Floor	0.031760	0.004720
3	609075.05	4123360.16	Offsite-1st Floor	0.048150	0.005210
4	609080.56	4123380.18	Offsite-1st Floor	0.064340	0.006020
5	609124.10	4123322.62	Offsite-1st Floor	0.022060	0.003470
6	609112.09	4123337.14	Offsite-1st Floor	0.027920	0.003900
7	609152.12	4123352.65	Offsite-1st Floor	0.030070	0.003970
8	609140.61	4123365.16	Offsite-1st Floor	0.035670	0.004470
9	609129.60	4123378.17	Offsite-1st Floor	0.043080	0.005100
10	609122.60	4123398.19	Offsite-1st Floor	0.054980	0.006150
11	609129.10	4123416.71	Offsite-1st Floor	0.060700	0.006830
12	609136.61	4123430.72	Offsite-1st Floor	0.063040	0.007280
13	609147.62	4123444.24	Offsite-1st Floor	0.061930	0.007240
14	609155.13	4123493.28	Offsite-1st Floor	0.079300	0.007780
15	609202.17	4123390.69	Offsite-1st Floor	0.025620	0.003270
16	609191.66	4123413.71	Offsite-1st Floor	0.029410	0.003680
17	609198.17	4123433.23	Offsite-1st Floor	0.030590	0.003700
18	609224.69	4123437.23	Offsite-1st Floor	0.027280	0.003210
19	609213.18	4123452.24	Offsite-1st Floor	0.030360	0.003360
20	609204.67	4123466.76	Offsite-1st Floor	0.033620	0.003450
21	609200.17	4123485.77	Offsite-1st Floor	0.037370	0.003370
22	609190.66	4123506.29	Offsite-1st Floor	0.047930	0.003720
23	609192.66	4123553.84	Offsite-1st Floor	0.034120	0.002740
24	609202.67	4123563.84	Offsite-1st Floor	0.025570	0.002090
25	609215.18	4123573.85	Offsite-1st Floor	0.018560	0.001690
26	609227.19	4123585.87	Offsite-1st Floor	0.013360	0.001390
27	609243.21	4123593.87	Offsite-1st Floor	0.009810	0.001160
28	609286.25	4123560.84	Offsite-1st Floor	0.008940	0.001050
29	609268.73	4123554.34	Offsite-1st Floor	0.011770	0.001260
30	609253.72	4123547.33	Offsite-1st Floor	0.015350	0.001510
31	609240.71	4123536.32	Offsite-1st Floor	0.020460	0.001850
32	609230.70	4123528.31	Offsite-1st Floor	0.025540	0.002190
33	609251.72	4123465.25	Offsite-1st Floor	0.023160	0.002400
34	609260.72	4123479.27	Offsite-1st Floor	0.020520	0.002030
35	609269.23	4123492.28	Offsite-1st Floor	0.017780	0.001730
36	609279.24	4123501.79	Offsite-1st Floor	0.015150	0.001490
37	609290.75	4123511.30	Offsite-1st Floor	0.012580	0.001270
38	609301.76	4123523.31	Offsite-1st Floor	0.010200	0.001080
39	609312.77	4123530.81	Offsite-1st Floor	0.008560	0.000950
40	609323.78	4123540.82	Offsite-1st Floor	0.007040	0.000840
41	609332.29	4123552.83	Offsite-1st Floor	0.005830	0.000750
42	609133.68	4123311.98	Offsite-1st Floor	0.019050	0.003270
43	609144.23	4123299.22	Offsite-1st Floor	0.016280	0.003090
44	609171.94	4123323.85	Offsite-1st Floor	0.021960	0.003380
45	609160.51	4123341.45	Offsite-1st Floor	0.026480	0.003700
46	609218.13	4123381.47	Offsite-1st Floor	0.023330	0.003030
47	609240.56	4123390.27	Offsite-1st Floor	0.022060	0.002900
48	609248.48	4123399.07	Offsite-1st Floor	0.021910	0.002860
49	609259.92	4123410.07	Offsite-1st Floor	0.021350	0.002730
50	609269.59	4123421.06	Offsite-1st Floor	0.020630	0.002560
51	609279.71	4123431.62	Offsite-1st Floor	0.019420	0.002320
52	609288.51	4123443.05	Offsite-1st Floor	0.018090	0.002090
53	609298.18	4123454.49	Offsite-1st Floor	0.016350	0.001830
54	609307.86	4123465.05	Offsite-1st Floor	0.014470	0.001590
55	609318.42	4123476.04	Offsite-1st Floor	0.012480	0.001370
56	609330.29	4123484.84	Offsite-1st Floor	0.010660	0.001190
57	609339.09	4123495.84	Offsite-1st Floor	0.009130	0.001040
58	609350.09	4123505.51	Offsite-1st Floor	0.007710	0.000910
59	609190.86	4123342.77	Offsite-1st Floor	0.023740	0.003310
60	609029.76	4123792.55	550 Piercy MEI	0.004510	0.000990
61	609048.03	4123818.58	Offsite-1st Floor	0.002980	0.000770
62	609069.80	4123833.09	Offsite-1st Floor	0.002210	0.000630
63	608999.99	4123830.84	Offsite-1st Floor	0.003960	0.001020
64	608981.97	4123843.60	Offsite-1st Floor	0.003890	0.001080
65	608996.23	4123855.11	Offsite-1st Floor	0.003260	0.000910
66	608985.72	4123868.87	Offsite-1st Floor	0.003010	0.000870
67	609002.16	4123913.26	Offsite-1st Floor	0.001910	0.000560
		Max		0.0793	0.00778