APPENDIX B

Air Quality and Greenhouse Gas Assessment

2030 GHGRS Compliance Checklist

CAMBRIAN PARK PLAZA AIR QUALITY AND GREENHOUSE GAS EMISSION ASSESSMENT

San José, California

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INTRODUCTION

The purpose of this report is to address air quality impacts, community health risks, and greenhouse gas (GHG) impacts associated with the proposed mixed-use development at the intersection of Camden Avenue and Union Avenue in San José, California. The air quality impacts from this project would be associated with demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutants and GHG emissions associated with construction and operation of the project were predicted using models. In addition, the potential project health risk impacts (includes construction and operation) and the impact of existing toxic air contaminant (TAC) sources affecting the nearby sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

APRIL 2021 UPDATE: The proposed project has been updated since the original version of this report was prepared in October 2020. Proposed land uses have been modified, where the hotel would now provide 229 rooms instead of 230 rooms. There would now be three, six-story apartment buildings with 305 residential units instead of two buildings with 320 units. The ground floor retail in these apartment buildings would now be approximately 50,990 square feet instead of 53,750 square feet. The assisted living building (Alternative 1) / office building (Alternative 2) would now be a five-story, approximately 184,060 square-foot building instead of a four-story, approximately 160,000 square-foot building. Finally, there would now be 48 single-family homes instead of 49 homes. Overall, most of these land use changes would decrease the amount of development from what was analyzed in this assessment except for assisted living / office building which would increase by approximately 24,000 square feet. Construction activities (i.e., construction equipment, hours used, hauling volumes, truck trips, construction schedule) are not expected to change to accommodate these new project land uses and therefore construction emissions would remain the same. Operational emissions with this new design would likely be less than the analyzed project. Even with the increase in assisted living / office use square footage, there would also be a decrease in number of dwelling units and square footage for the housing portion that would have less traffic trips. Therefore, reanalysis of air quality and GHG emissions for the new project uses was not conducted at this time as these updated land uses are not going to substantially change the findings (i.e., impacts or mitigations).

2020 PROJECT DESCRIPTION

The project site is located at the southeast corner of the intersection of Camden Avenue and Union Avenue, in the Cambrian Park neighborhood in southwestern San José, California. The site is currently occupied by the Cambrian Park Plaza shopping center. The proposed project would demolish the existing buildings and hardscape, remove all the existing landscaping, and construct a mixed-use project with two alternatives. Alternative 1 would consist of a hotel, apartment buildings with ground floor retail uses, an assisted living facility, townhomes, single-family homes, community park areas and promenades, a community garden, a fitness park area, and a playground. Alternative 2 would consistent of the same land uses except the assisted living facility would be replaced with an office building.

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

Hotel

The proposed hotel building would be five stories in height (68 feet to the roof level), with retail uses at the ground floor and one level of below-grade parking. The hotel would provide up to 230 rooms and would include a restaurant with a rooftop deck dining area. The ground floor retail space would provide approximately 4,610 square feet for commercial uses. The parking garage would extend from the hotel site westward to the area beneath the apartments and retail area at the northwest corner of the site and would also serve these uses.

Apartments/Retail

The proposed apartment and retail uses are located in the northwestern portion of the site, with two, six-story apartment buildings with ground floor retail uses located along the perimeter of the site on Camden Avenue and Union Avenue. The apartment buildings would provide 320 residential units on the second through sixth floors and would reach a maximum height of 80 feet to the roof level. Approximately 53,750 square feet of retail/restaurant uses would be provided on the ground floor of the buildings and in the interior courtyard. Surface parking and below-grading parking would be provided.

Assisted Living/Office Building

A four-story, approximately 160,000-square foot assisting living facility with its own underground parking garage and an interior courtyard area would be proposed along Union Avenue frontage at the west side of the project site. A project variant (Alternative 2) is proposed for this building for 160,000 square feet of office uses instead of assisted living.

Townhouses

The project proposes five three-story townhouse buildings, containing a total of 25 residential units. These would be located at the southwest corner of the site, with two buildings fronting on Union Avenue, on opposite sides of a proposed new street connecting Union Avenue to Camden Avenue that runs along the east/southeast boundary of the project site. The proposed townhouse units would have individual garages on the ground floor.

Single-Family Homes

The project would include 49 single-family homes, located on both sides of the proposed new street along the east/southeast boundary of the site.

Community Parks and Public Open Space

In addition to the private open space included with the proposed single-family homes, townhouses, apartments and assisted living units, the project provides several community park and open space areas. The community park is approximately 2.26 acres and the total area of public open space is 10.2 acres.

AIR POLLUTANTS AND CONTAMINANTS

Air pollutants are governed by multiple federal and state standards to regulate and mitigate health impacts. At the federal level, there are six criteria pollutants for which National Ambient Air Quality Standards (NAAQS) have been established: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), suspended particulate matter (PM: $PM_{2.5}$ and PM_{10}), and sulfur dioxide (SO_2). California sets standards, similar to the NAAQS as California Ambient Air Quality Standards (CAAQS). Health effects of the primary criteria pollutants (i.e., the NAAQS) and their potential sources are described below and summarized in Table 1. Note that California includes pollutants or contaminants that are specific to certain industries and not associated with this project. These include hydrogen sulfide and vinyl chloride.

Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_X). The main sources of ROG and NO_X, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, shortness of breath, and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

Carbon monoxide is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. While CO transport is limited, it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal.

Nitrogen Dioxide

Nitrogen Dioxide is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contribute to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection. On January 22, 2010 the U.S. Environmental Protection Agency (EPA) strengthened the health-based NAAQS for NO_2.

Sulfur Dioxide

Sulfur dioxide is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Particulate Matter

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are larger than 2.5 microns but smaller than 10 microns (PM_{10}). $PM_{2.5}$ refers to fine suspended particulate matter with an aerodynamic diameter of 2.5 microns or less that is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as by-products of fuel combustion, through abrasion, such as tire or brake lining wear, or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Lead

Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufactures.

Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the EPA and the California Air Resources Board (CARB). Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high volume transit centers, or schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Table 1. Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood functions and nerve construction. • Behavioral and hearing problems in children.
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardiorespiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.
Toxic Air Contaminants	• Cars and trucks, especially diesels. • Industrial sources such as chrome platers. • Neighborhood businesses such as dry cleaners and service stations. • Building materials and product.	• Cancer. • Chronic eye, lung, or skin irritation. • Neurological and reproductive disorders.

Source: CARB, 2009. ARB Fact Sheet: Air Pollution and Health, see: https://www.arb.ca.gov/research/health/fs/fs1/fs1.htm accessed May 1, 2018

SETTING

The project is in the San Francisco Bay Area Air Basin. The Air Basin includes the counties of San Francisco, Santa Clara, San Mateo, Marin, Napa, Contra Costa, and Alameda, along with the southeast portion of Sonoma County and the southwest portion of Solano County.

This Project is within the jurisdiction of the BAAQMD. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants, and the number of days during which the region exceeds air quality standards, have fallen dramatically. Exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Local Climate and Air Quality

Air quality is a function of both local climate and local sources of air pollution. Air quality is the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment. Climate and topography are major influences on air quality.

Climate and Meteorology

During the summer, mostly clear skies result in warm daytime temperatures and cool nights in the Santa Clara Valley. Winter temperatures are mild, except for very cool but generally frost-less mornings. Further inland where the moderating effect of the bay is not as strong, temperature extremes are greater. Wind patterns are influenced by local terrain, with a northwesterly sea breeze typically developing during the daytime. Winds are usually stronger in the spring and summer. Rainfall amounts are modest, ranging from 13 inches in the lowlands to 20 inches in the hills.

Air Pollution Potential

Ozone and fine particle pollution, or $PM_{2.5}$, are the major regional air pollutants of concern in the San Francisco Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution in the winter. Most of Santa Clara County is well south of the cooler waters of the San Francisco Bay and far from the cooler marine air which usually reaches across San Mateo County in summer. Ozone frequently forms on hot summer days when the prevailing seasonal northerly winds carry ozone precursors southward across the county, causing health standards to be exceeded. Santa Clara County experiences many exceedances of the $PM_{2.5}$ standard each winter. This is due to the high population density, wood smoke, industrial and freeway traffic, and poor wintertime air circulation caused by extensive hills to the east and west that block wind flow into the region.

Attainment Status Designations

The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for all state standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that data does not support either an attainment or nonattainment status. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

Table 2 shows the state and federal standards for criteria pollutants and provides a summary of the attainment status for the San Francisco Bay Area with respect to national and state ambient air quality standards.

Table 2. NAAQS, CAAQS, and San Francisco Bay Area Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Attainment
	1-Hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	Annual Mean	0.030 ppm (57 mg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
	1-Hour	0.18 ppm (338 µg/m^3)	Attainment	0.100 ppm	Unclassified
Ozone (O_3)	8-Hour	0.07 ppm (137 µg/m^3)	Nonattainment	0.070 ppm	Nonattainment
	1-Hour	0.09 ppm (180 µg/m^3)	Nonattainment	Not Applicable	Not Applicable
Suspended Particulate Matter (PM_{10})	Annual Mean	20 µg/m^3	Nonattainment	Not Applicable	Not Applicable
	24-Hour	50 µg/m^3	Nonattainment	150 µg/m^3	Unclassified
Suspended Particulate Matter ($PM_{2.5}$)	Annual Mean	12 µg/m^3	Nonattainment	12 µg/m^3	Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m^3	Nonattainment
Sulfur Dioxide (SO_2)	Annual Mean	Not Applicable	Not Applicable	80 µg/m^3 (0.03 ppm)	Attainment
	24-Hour	0.04 ppm (105 µg/m^3)	Attainment	365 µg/m^3 (0.14 ppm)	Attainment
	1-Hour	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Attainment
Lead (Pb) is not listed in the above table because it has been in attainment since the 1980s. ppm = parts per million, mg/m^3 = milligrams per cubic meter, µg/m^3 = micrograms per cubic meter					

Source: Bay Area Air Quality Management District, 2017. *Air Quality Standards and Attainment Status.* January 5.

Existing Air Pollutant Levels

BAAQMD monitors air pollution at various sites within the Bay Area. The closest air monitoring station (158 Jackson Street) that monitored O_3, CO, NO, NO_2, PM_{10}, and $PM_{2.5}$ over the past 5 years (2014 through 2018) is in the City of San José approximately 5 miles southwest of the project site. The data shows that during the past few years, the project area has exceeded the state and/or federal O_3, PM_{10}, and $PM_{2.5}$ ambient air quality standards. Table 3 lists air quality trends in data collected at the San José Station for the past 5 years and published by the BAAQMD, which is the most recent time-period available. Ozone standards are exceeded on 0 to 4 days annually in San José and 3 to 15 days throughout the Bay Area. Measured 24-hour PM_{10} and $PM_{2.5}$ concentrations are exceeded on 0 to 6 monitoring days in San José and up to 18 days at any place in the Bay Area (note these levels were influences by smoke from wildfires).

Table 3. Ambient Air Quality Concentrations from 2014 through 2018

Pollutant	Standard	2014	2015	2016	2017	2018
Ozone						
Max 1-hr concentration		89 ppb	94 ppb	87 ppb	121 ppb	78 ppb
No. days exceeded: CAAQS	90 ppb	0	0	0	3	0
Max 8-hr concentration			81 ppb	66 ppb	98 ppb	61 ppb
No. days exceeded: CAAQS	70 ppb	0	2	0	4	0
NAAQS	70 ppb	0	2	0	4	0
Carbon Monoxide						
Max 1-hr concentration		2.4 ppm	2.4 ppm	2.0 ppm	2.1 ppm	2.5 ppm
No. days exceeded: CAAQS	20 ppm	0	0	0	0	0
NAAQS	35 ppm	0	0	0	0	0
Max 8-hr concentration			1.8 ppm	1.4 ppm	1.8 ppm	2.1 ppm
No. days exceeded: CAAQS	9.0 ppm	0	0	0	0	0
NAAQS	9 ppm	0	0	0	0	0
PM_{10}						
Max 24-hr concentration		55 $\mu g/m^3$	58 $\mu g/m^3$	41 $\mu g/m^3$	70 $\mu g/m^3$	122 $\mu g/m^3$
No. days exceeded: CAAQS	50 $\mu g/m^3$	1	1	0	6	4
NAAQS	150 $\mu g/m^3$	0	0	0	0	0
Max annual concentration		19.9 $\mu g/m^3$	22.0 $\mu g/m^3$	18.5 $\mu g/m^3$	21.6 $\mu g/m^3$	23.1 $\mu g/m^3$
No. days exceeded: State	-	-	-	-	-	-
$PM_{2.5}$						
Max 24-hr concentration		60.4 $\mu g/m^3$	49.4 $\mu g/m^3$	22.6$\mu g/m^3$	49.7 g/m^3	133.9$\mu g/m^3$
No. days exceeded: NAAQS	35 $\mu g/m^3$	2	2	0	6	4
Annual Concentration			10.0 g/m^3	8.4 $\mu g/m^3$	9.5 $\mu g/m^3$	12.8$\mu g/m^3$
No. days exceeded: CAAQS	12 $\mu g/m^3$	-	-	-	-	-
NAAQS	12 $\mu g/m^3$	-	-	-	-	-
Nitrogen Dioxide						
Max 1-hr concentration		58 ppb	49 ppb	51 ppb	68 ppb	86 ppb
No. days exceeded: CAAQS	180 ppb	0	0	0	0	0
NAAQS	100 ppb	0	0	0	0	0
Annual Concentration		13 ppb	13 ppb	11 ppb	12 ppb	13 ppb
No. days exceeded: CAAQS	30 ppb	-	-	-	-	-
NAAQS	53 ppb	-	-	-	-	-

Source: Bay Area Air Quality Management District, 2019

Regulatory Framework

Pursuant to the Federal Clean Air Act (FCAA) of 1970, the EPA established the NAAQS. The NAAQS were established for major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both the EPA and the CARB have established ambient air quality standards for common pollutants: CO, O_3, NO_2, SO_2, Pb, and PM. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the public with a reasonable margin of safety. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each criteria pollutant.

Federal Air Quality Regulations

At the federal level, the EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the FCAA, which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required EPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implement Plan (SIP). Federal standards include both primary and secondary standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.[2] The Federal Clean Air Act Amendments of 1990 (FCAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA has responsibility to review all state SIPs to determine conformity with the mandates of the FCAAA and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area which imposes additional control measures. Failure to submit an approvable SIP or to implement the Plan within the mandated timeframe may result in the application of sanctions on transportation funding and stationary air pollution sources in the air basin.

The 1970 FCAA authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The FCAA Amendments of 1990 changed deadlines for attaining NAAQS as well as the remedial actions required of areas of the nation that exceed the standards. Under the FCAA, state and local agencies in areas that exceed the NAAQS are required to develop SIPs to show how they will achieve the NAAQS by specific dates. The FCAA requires that projects receiving federal funds demonstrate conformity to the approved SIP and local air

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[2] See: U.S. Environmental Protection Agency, Web: https://www.epa.gov/criteria-air-pollutants/naaqs-table, Accessed 13 August 2020

quality attainment Plan for the region. Conformity with the SIP requirements would satisfy the FCAA requirements.

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 (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, O_3, SO_2, and NO_2 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.[3] CARB subsequently developed an Air Quality and Land Use Handbook[4] (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

[3] California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.
[4] California Air Resources Board, 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

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).

<u>Bay Area Air Quality Management District</u>

The BAAQMD seeks to attain and maintain air quality conditions in the San Francisco Bay Area Air Basin (SFBAAB) through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. The clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. The BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by law.

Clean Air Plan

The BAAQMD is responsible for developing a Clean Air Plan which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD's 2017 Clean Air Plan is the latest Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_X), particulate matter and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan, which was adopted on April 19, 2017 by the BAAQMD's board of directors:

- Updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone;
- Provides a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan;
- Reviews progress in improving air quality in recent years; and
- Continues and updates emission control measures.

BAAQMD CARE Program

The 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. 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 has identified six communities as impacted: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco.

Planning Healthy Places

BAAQMD developed a guidebook that provides air quality and public health information intended to assist local governments in addressing potential air quality issues related to exposure of sensitive receptors to exposure of emissions from local sources of air pollutants. The guidance provides tools and recommended best practices that can be implemented to reduce exposures. The information is provided as recommendations to develop policies and implementing measures in city or county General Plans, neighborhood or specific plans, land use development ordinances, or into projects.

BAAQMD California Environmental Quality Act Air Quality Guidelines

The BAAQMD California Environmental Quality Act (CEQA) Air Quality Guidelines[5] 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 assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their CEQA Guidelines. In May 2011, the updated BAAQMD CEQA Air Quality Guidelines were amended to include a risk and hazards threshold for new receptors and modify procedures for assessing impacts related to risk and hazard impacts. A recent update to the Guidelines was published in May 2017.

BAAQMD Rules and Regulations

Combustion equipment associated with the proposed project that includes new diesel engines to power generators and possibly new natural gas-fired boilers would establish new sources of particulate matter and gaseous emissions. Emissions would primarily result from the testing of the emergency backup generators, operation of the boilers for space and water heating and some minor emissions from cooling towers. The project would also generate emissions from vehicles traveling to and from the project.

[5] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

Certain emission sources would be subject to BAAQMD Regulations and Rules. The District's rules and regulations that may apply to the project include:

- Regulation 2 – Permits
  - Rule 2-1: General Requirements
  - Rule 2-2: New Source Review
- Regulation 6 – Particulate Matter and Visible Emissions
- Regulation 9 – Inorganic Gaseous Pollutants
  - Rule 9-1: Sulfur Dioxide
  - Rule 9-7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, And Process Heaters
  - Rule 9-8: Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines

Permits

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

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

Rule 2-1 lists sources that are exempt from permitting. At the proposed facility, the diesel fuel storage tanks are expected to be exempt from permitting.

New Source Review

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

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

BACT for Diesel Generator Engines

Since the generators will be used exclusively for emergency use during involuntary loss of power, the BACT 2 levels listed for IC compression engines in the BAAQMD BACT Guidelines would apply. The BACT 2 NOx emission factor limit is 6.9 grams per horsepower hour (g/hp-hr). The project's proposed engines will have emissions lower than the BACT 2 level and, as such, will comply with the BACT requirements.

Offsets

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

Prohibitory Rules

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

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

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

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

Stationary Diesel Airborne Toxic Control Measure

The BAAQMD administers the state's Airborne Toxic Control Measure (ACTM) for Stationary Diesel engines (section 93115, title 17 CA Code of Regulations). The project's stationary sources will be new stationary emergency standby diesel engines larger than 50 hp. Since the engines will have an uncontrolled PM emission factor of less than 0.15 g/hp-hour and operate no more than 50 hours per year, the engines will comply with the requirements of the ACTM.

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of ROG and NOX. 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 (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels 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

Toxic air contaminants 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 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.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[6] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the state level, the CARB (a part of the California EPA) oversees regional air district activities and regulates air quality at the state level. The BAAQMD has published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[7] Projects that have TAC emissions that could adversely affect sensitive receptors prepare health risk assessments to quantify the potential and, if appropriate, identify mitigation measures to reduce impacts. This report includes a health risk assessment that evaluates impacts form temporary project

[6] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[7] Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines*. May.

construction, long-term use of stationary equipment, and long-term traffic activity generated by the project. The detailed health risk modeling methodology used in this assessment is contained in *Attachment 1*.

City of San José

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 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.

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-11.5 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-11.7 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.

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 residences to the east adjacent to the project site. There are more sensitive receptors at farther distances with two daycares that care for infants to kindergarten age children (TrueHeart Family and Early Discoveries CDC – Cambrian Park) within 1,000 feet of the project site school. This project would also introduce new sensitive receptors in the form of residents and adult seniors (only for Alternative 1).

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, which were used in this analysis and are summarized in

Table 4.

Table 4. 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	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	>10.0 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	
Greenhouse Gas Emissions			
Land Use Projects – direct and indirect GHG emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually (for 2020)* OR 4.6 metric tons per service population per year (for 2020)*		
Note: ROG = reactive organic gases, NOx = 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: 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 ozone 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 PM_{10} 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 ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB EMission FACtors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.[8] The model output from CalEEMod along with construction inputs are included as *Attachment 2* and EMFAC2017 vehicle emissions modeling outputs are included in *Attachment 3*.

Land Use Inputs

The proposed project land uses were entered into CalEEMod as described in Table 5. Note that Alternative 1 and 2 have the same land uses except for the proposed assisted living facility and the general office building. Alternative 1 would include the assisted living facility, while Alternative 2 would include the general office building instead.

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 information provided by the project applicant.

The construction schedule assumed that the earliest possible start date would be August 2021 and the project would be built out over a period of approximately 28 months, or 581 construction workdays. The construction equipment worksheet provided included the schedule for each phase. Within each phase, the quantity of equipment to be used along with the average hours per day and

[8] See CARB's EMFAC2017 Web Database at https://www.arb.ca.gov/emfac/2017/

total number of workdays was provided. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase.

Table 5. Summary of Project Land Use CalEEMod Inputs[9]

Project Land Uses	Size	Units	Square Feet	Acres
Single Family Housing	49	Dwelling Unit	113,620	14.94
Condo/Townhomes	25	Parking Space	49,350	
Apartments Mid Rise	320	Dwelling Unit	340,220	
High Turnover (Sit Down Restaurant)	42.00	1,000 sf	42,000	
Strip Mall	18.00	1,000 sf	18,000	
Hotel	230	Room	165,740	
City Park	2.26	Acre	98,446	
Enclosed Parking with Elevator	1,225	Space	490,000	
Parking Lot	98	Space	39,200	
Other Non-Asphalt Surfaces[1]	319.47	1,000 sf	319,470	
Alternative 1: Congregate Care (Assisted Living)	185	Dwelling Unit	160,000	
Alternative 2: General Office Building	16.0	1,000 sf	160,000	
Note: [1]The other non-asphalt includes the square footage for the planned hardscape and landscape.				

Construction Traffic Emissions

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2014 motor vehicle emission factor model. This model has been superseded by the EMFAC2017 model; however, CalEEMod has not been updated to include EMFAC2017. 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 demolition material to be exported, soil material imported and/or exported to the site, and the estimate of cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily rate by the number of days in that phase. The traffic information was combined with EMFAC2017 motor vehicle emissions factors.

EMFAC2017 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 LDT1and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trucks, 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. Since CalEEMod does not directly address cement or asphalt trucks, these were treated as vendor travel distances (7.3 miles).[10] 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

[9] Land use inputs are based on original project land uses and not updated project land uses, as described in introduction.
[10] Note that vendor construction traffic surveys used to develop CalEEMod default assumptions likely included cement truck trips.

County for 2021, 2022, and 2023 were used in these calculations. Table 6 provides the traffic inputs that were combined with the EMFAC2017 emission database to compute vehicle emissions.

Table 6. Construction Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type: Total Worker Trips[1]	Trips by Trip Type: Total Vendor Trips[1]	Trips by Trip Type: Total Haul Trips	Notes
Vehicle mix[1]	72% LDA 6% LDT1 22% LDT2	38% MHDT 62% HHDT	100% HDDT	
Trip Length (miles)	10.8	7.3	20.0 Demo 7.3 Concrete/Asphalt	Truck Idle Time = 5 minutes
Demolition	2,700	-	3,053	171,205 sf of existing building and 500,000 sf of existing pavement hauled. CalEEMod defaults.
Site Preparation	2,772	-	-	CalEEMod Default
Grading	6,270	-	50,000	Export = 400,000 cy. CalEEMod default worker trips.
Trenching	2,760	-	-	CalEEMod Default
Building Construction	231,400	66,040	-	CalEEMod Default
Architectural Coating	46,280	-	-	CalEEMod Default
Paving	1,960	-	-	CalEEMod Default

Notes:
[1] Based on 2021, 2022, and 2023 EMFAC2017 VMT-based fleet mix for Santa Clara County.
Square feet = sf, Cubic yards = cy

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions and dividing those emissions by the number of active workdays during that year. Table 7 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project.

As indicated in Table 7, predicted annualized project construction emissions would exceed the BAAQMD significance thresholds for NO_x during the years 2021 and 2022 (i.e. first two years of construction) for both Alternative 1 and 2. However, with *Mitigation Measures AQ-1 and AQ-2*, the NO_x emissions would be reduced to a level at or below the threshold of 54 pounds per day for both alternatives. All other construction criteria pollutants emissions are below the BAAQMD thresholds. Note that the ROG emissions differ slightly between the two alternatives due the painting square footage difference in residential and non-residential developments. The NO_x, PM_{10} exhaust, and $PM_{2.5}$ exhaust construction emissions are the same since the construction schedule and equipment would be the same for Alternative 1 and Alternative 2.

Table 7. Construction Period Emissions for Alternative 1 and Alternative 2

Year	ROG		NOx		PM_{10} Exhaust		$PM_{2.5}$ Exhaust	
ALTERNATIVE 1								
Construction Emissions Per Year (Tons)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2021	0.45	0.17	4.96	2.72	0.25	0.08	0.20	0.05
2022	2.19	1.86	7.59	6.14	0.39	0.20	0.29	0.11
2023	5.09	4.80	5.79	4.97	0.32	0.18	0.23	0.10
Annualized Daily Construction Emissions (pounds/day)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2021 (100 construction workdays)	9	3	**99**	54	5	2	4	1
2022 (260 construction workdays)	17	14	**58**	47	3	2	2	1
2023 (221 construction workdays)	46	43	52	45	3	2	2	1
BAAQMD Thresholds (pounds per day)	*54* lbs./day		*54* lbs./day		*82* lbs./day		*54* lbs./day	
Exceed Threshold?	No	No	**Yes (2021 & 2022)**	No	No	No	No	No
ALTERNATIVE 2								
Construction Emissions Per Year (Tons)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2021	0.45	0.17	4.96	2.72	0.25	0.08	0.20	0.05
2022	2.12	1.79	7.59	6.14	0.39	0.20	0.29	0.11
2023	4.87	4.58	5.79	4.97	0.32	0.18	0.23	0.10
Annualized Daily Construction Emissions (pounds/day)								
Year	Unmit	Mit	Unmit	Mit	Unmit	Mit	Unmit	Mit
2021 (100 construction workdays)	9	3	**99**	54	5	2	4	1
2022 (260 construction workdays)	16	14	**58**	47	3	2	2	1
2023 (221 construction workdays)	44	41	52	45	3	2	2	1
BAAQMD Thresholds (pounds per day)	*54* lbs./day		*54* lbs./day		*82* lbs./day		*54* lbs./day	
Exceed Threshold?	No	No	**Yes (2021, 2022)**	No	No	No	No	No
Notes: Unmit = Unmitigated, Mit = Mitigated								

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices*.

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Measures to Control Particulate Matter Emissions during Construction. Measures to reduce DPM and PM_{10} from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided.

Dust (PM_{10}) Control Measures:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

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 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.

9. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.

10. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.

11. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

12. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

13. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.

14. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent

Effectiveness of Mitigation AQ-1:

These measures are consistent with recommendations in the BAAMQD CEQA Guidance for providing "best management practices" to control construction emissions.

Mitigation Measure AQ-2: Use construction equipment that has low diesel particulate matter exhaust and NO_X emissions.

Exhaust Emission (NOx and PM) Control Measures:

1. All diesel construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards (i.e. Tier 4 Interim or Final engine standard) for NOx and PM (PM_{10} and $PM_{2.5}$), if feasible, otherwise,

    a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination). The use of Tier 3 equipment shall not exceed 5 percent of all equipment usage (described in terms of total horsepower hours during a phase).

    b. Use of alternatively fueled equipment with lower NOx emissions that meet the NOx and PM reduction requirements above.

2. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators, welders, and air compressors.

Effectiveness of Mitigation Measure AQ-2

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 interim engines standards and that *Mitigation Measures AQ-1* best management practices for construction were implemented. With the implementation of the *Mitigation Measure AQ-1* and *AQ-2*, the project's construction NO_x emissions in 2021 and 2022 would be reduced from 99 pounds per day and 58 pounds per day to 54 pounds per day and 47 pounds per day, respectively. As a result, the project's construction risks would be reduced to a value below the BAAQMD single-source thresholds.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents and employees. 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.

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. This analysis assumed that the project would be fully built out and operating in the year 2024.

Operational Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate provided by the traffic consultant was entered into the model. The weekday trip generation rates were adjusted using the traffic daily rates. The Saturday and Sunday trip rates were adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate with the project-specific daily weekday trip rate.[11] The default trip lengths and trip types specified by CalEEMod were used.

EMFAC2017 Adjustment

The vehicle emission factors and fleet mix used in CalEEMod are based on EMission FACtors from 2014 (EMFAC2014), which is an older CARB emission inventory for on road and off road mobile sources. Since the release of CalEEMod Version 2016.3.2, new emission factors have been produced by CARB. EMFAC2017 became available for use in March 2018 and approved by the EPA in August 2019. It includes the latest data on California's car and truck fleets and travel activity. Additionally, CARB has recently released EMFAC off-model adjustment factors to account for the Safer Affordable Efficient (SAFE) Vehicle Rule Part one.[12,13] The SAFE vehicle Rule Part One revoked California's authority to set its own GHG emission standards and set zero emission vehicle mandates in California. As a result of this ruling, mobile criteria pollutant and GHG emissions would increase. Therefore, the CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2017, which were adjusted with the CARB EMFAC off-model adjustment factors. More details about the updates in emissions

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[11] Hexagon Transportation Consultants, Inc. 2020. *Cambrian Park Plaza Mixed-Use Village Development Transportation Analysis*. August.
[12] California Air Resource Board, 2019. *EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One*. November. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf
[13] California Air Resource Board, 2020. *EMFAC Off-Model Adjustment Factors for Carbon Dioxide ($CO_2$0 Emissions to Accounts for the SAFE Vehicles Rule Part One and the Final SAFE Rule*. June. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery

calculation methodologies and data are available in the EMFAC2017 Technical Support Document.[14]

Climate Smart San José

Climate Smart San José is a plan to reduce air pollution, save water, and create a stronger and healthier community. The City approved goals and milestones in February 2018 to ensure the City can substantially reduce GHG emissions through reaching the following goals and milestones:

- All new residential buildings will be Zero Net Carbon Emissions (ZNE) by 2020 and all new commercial buildings will be ZNE by 2030 (Note that ZNE buildings would be all electric with a carbon-free electricity source).
- San Jose Clean Energy (SJCE) will provide 100-percent carbon-free base power by 2021.
- One gigawatt of solar power will be installed in San Jose by 2040.
- 61 percent of passenger vehicles will be powered by electricity by 2030.

The California Energy Commission (CEC) updates the California Building Energy Efficiency Standards every three years, in alignment with the California Code of regulations. Title 24 Parts 6 and 11 of the California Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) address the need for regulations to improve energy efficiency and combat climate change. The 2019 CAL Green standards include substantial changes intended to increase the energy efficiency of buildings. For example, the code encourages the installation of solar and heat pump water heaters in low-rise residential buildings. The 2019 California Code went before City Council in October 2019 for approval, with an effective date of January 1, 2020. As part of this action, the City adopted a "reach code" that requires development projects to exceed the minimum Building Energy Efficiency requirements.[15] The City's reach code applies only to new residential and non-residential construction in San José. It incentivizes all-electric construction, requires increased energy efficiency and electrification-readiness for those choosing to maintain the presence of natural gas. The code requires that non-residential construction include solar readiness. It also requires additional EV charging readiness and/or electric vehicle service equipment (EVSE) installation for all development types.

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards[16]. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. PG&E published in 2019 emissions rates for 2010 through 2017, which showed the emission rate for delivered electricity had been reduced to 210 pounds

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[14] See CARB 2018: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

[15] City of San Jose Transportation and Environmental Committee, *Building Reach Code for New Construction Memorandum,* August 2019.

[16] An update to CalEEMod to include new 2019 Title 24 standards that include more energy efficient buildings has not been completed as of the September 18, 2020.

CO_2 per megawatt of electricity delivered in the year 2017.[17] This intensity factor was used in the model along with the assumption that the project would use electricity supplied by San José Clean Energy (SJCE). SJCE would provide electricity that would be 100-percent carbon free by 2021 before the project becomes operational.[18]

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project. Water/wastewater use was changed to 100% aerobic conditions to represent wastewater treatment plant conditions. No hearths were assumed.

Existing Land Use

The existing site consists of retail only; therefore, the existing land use was modeled as 170,427 sf of "Strip Mall" and 764 parking spaces in a "Parking Lot" in CalEEMod. The traffic consultants provided project-specific trip rates for this land uses, so the trip generation rates were changed to use the rates from the traffic consultants.

Summary of Computed Operational Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimating assuming 365 days of operation. Table 8 shows net average daily construction emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. The operational period emissions would not exceed the BAAQMD significance thresholds for Alternative 1 nor Alternative 2

Table 8. Operational Period Emissions for Alternatives 1 and 2

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2024 Alternative 1 Annual Project Operational Emissions (*tons/year*)	7.07	4.60	5.12	1.47
2024 Alternative 2 Annual Project Operational Emissions (*tons/year*)	7.19	4.95	5.60	1.60
2024 Annual Existing Operational Emissions (*tons/year*)	2.71	2.48	3.40	0.93
Alternative 1 Net Annual Emissions	4.36	2.13	1.72	0.54
Alternative 2 Net Annual Emissions	4.48	2.47	2.20	0.67
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	*No*	*No*	*No*	*No*
2024 Alternative 1 Daily Project Operational Emissions (*pounds/day*)[1]	23.9	11.7	9.4	3.0
2024 Alternative 2 Daily Project Operational Emissions (*pounds/day*)[1]	24.6	13.5	12.1	3.7
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	*No*	*No*	*No*	*No*
Notes: [1] Assumes 365-day operation.				

[17] PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf
[18]See: https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative

Impact AIR-2: 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. mobile sources).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. During project operation, the project would generate some traffic, consisting of mostly light-duty vehicles. In addition, the project does not propose any onsite stationary sources (e.g. emergency generator with diesel engine) at the time of this analysis.

Therefore, project impacts to existing sensitive receptors were addressed for temporary construction activities and operational project traffic impacts only. There are also several sources of existing TACs and localized air pollutants in the vicinity of the project. The impact of these existing sources of TAC was also assessed in terms of the cumulative risk that includes the project contribution.

Community Risk Methodology for Construction and Operation

Community risk impacts were addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations and computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operation sources. These sources include on-site construction activity, construction truck hauling, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period is typically used, per BAAQMD guidance,[19] with the residential sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

The project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. Unlike, the increased maximum cancer risk, the annual $PM_{2.5}$ concentration and HI values are not additive but based on the annual maximum values for the entirety of the project. The project's 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 modeling of TAC and $PM_{2.5}$ emissions, dispersion modeling and cancer risk computations.

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

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 include all adjacent existing residences and other sensitive receptor groups, as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e. infants, children, and adults) with almost continuous exposure to project emissions. Additionally, the risks and hazard values were calculated for infants and children at the daycares identified in Figure 1.

Community Risks from Project Construction

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[20] This assessment included dispersion modeling to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod model provided total annual PM_{10} 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 of 0.5839 tons (1,168 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length half a mile was used to represent vehicle travel while at or near the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.6292 tons (1,258 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences and high school) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[21] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions. Note that the construction emissions for Alternative 1 and 2 would be the same, so only one construction model was completed.

[20] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.
[21] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

Construction Sources

Combustion equipment exhaust emissions were modeled as a series of point sources with a nine-foot release height (construction equipment exhaust stack height) placed at 82 feet (25 meter) intervals throughout the construction site. This resulted in 112 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area, with DPM emissions occurring throughout the project construction site. A release height of 9 feet (2.7 meters) was used for the construction equipment (i.e. the height of the exhaust pipe). In addition, the following stack parameters were used: a vertical release, a stack diameter of 2.5 inches, an exhaust temperature of 918˚F, and an exit velocity of 309 feet per second. Since these are point sources plume rise is calculated by the AERMOD dispersion model.

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 point(s) of generation. Once generated, the dust plume will tend to rise as it moves downwind across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources.

AERMOD Inputs and Meteorological Data

The modeling used a 5-year meteorological data set (2013-2017) from the San José International Airport prepared for use with the AERMOD model by the BAAQMD. This airport is approximately eight miles north of the project site. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2021-2023 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptor locations. Receptor heights of 5 feet (1.5 meters) used to represent the breathing heights of residences and a receptor breathing height of 3 feet (1 meter) was used for the children attending the daycares.

Construction emissions were modeled as occurring daily between 7:00 a.m. to 5:00 p.m. The emission rates used for dispersion modeling were calculated using the total annual construction emissions computed using CalEEMod (based on construction occurring 5 days per week) and dividing by 9 hours per day for 365 days (i.e., normalizing the emissions to an annualized pound per hour emission rate over the period being modeled). The dispersion modeling was conducted assuming emissions would occur 10 hours per day Monday through Friday using the variable emission option in the U.S. EPA AERMOD dispersion model.

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

The increased cancer risk calculations were based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations, as described in *Attachment 1*. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Infant and adult exposures were assumed to occur at all residences during the entire construction period. At the daycares, children between the ages of six months to six years old were assumed. It was also assumed that the children would be at the daycares for 250 days a year, which aligns with BAAQMD's recommendation for worker schedules.[22] This exposure frequency was used since children would be at the daycare when parents are at work.

The maximum modeled annual $PM_{2.5}$ concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI values was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation refence exposure level of 5 $\mu g/m^3$.

The maximum modeled annual DPM 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 Figure 1) to find the MEI. Results indicated that the maximum concentrations from DPM and $PM_{2.5}$ would occur at two different locations. The maximum increased cancer risk would occur at the Early Discoveries CDC – Cambrian Park daycare, which is adjacent to the eastern portion of the project site. Sensitive receptors at this location were assumed to include infants and children with the age range being 6 months to six years old. The maximum annual $PM_{2.5}$ concentration from project construction would occur at a single-family home also east of the project site.

The construction community risks were also computed and predicted at the location of another daycare (i.e. TrueHeart Family daycare) identified in Figure 1.

[22] Bay Area Air Quality Management District, 2016, *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. January.

Table 9 lists the community risks from construction at all these locations. *Attachment 4* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

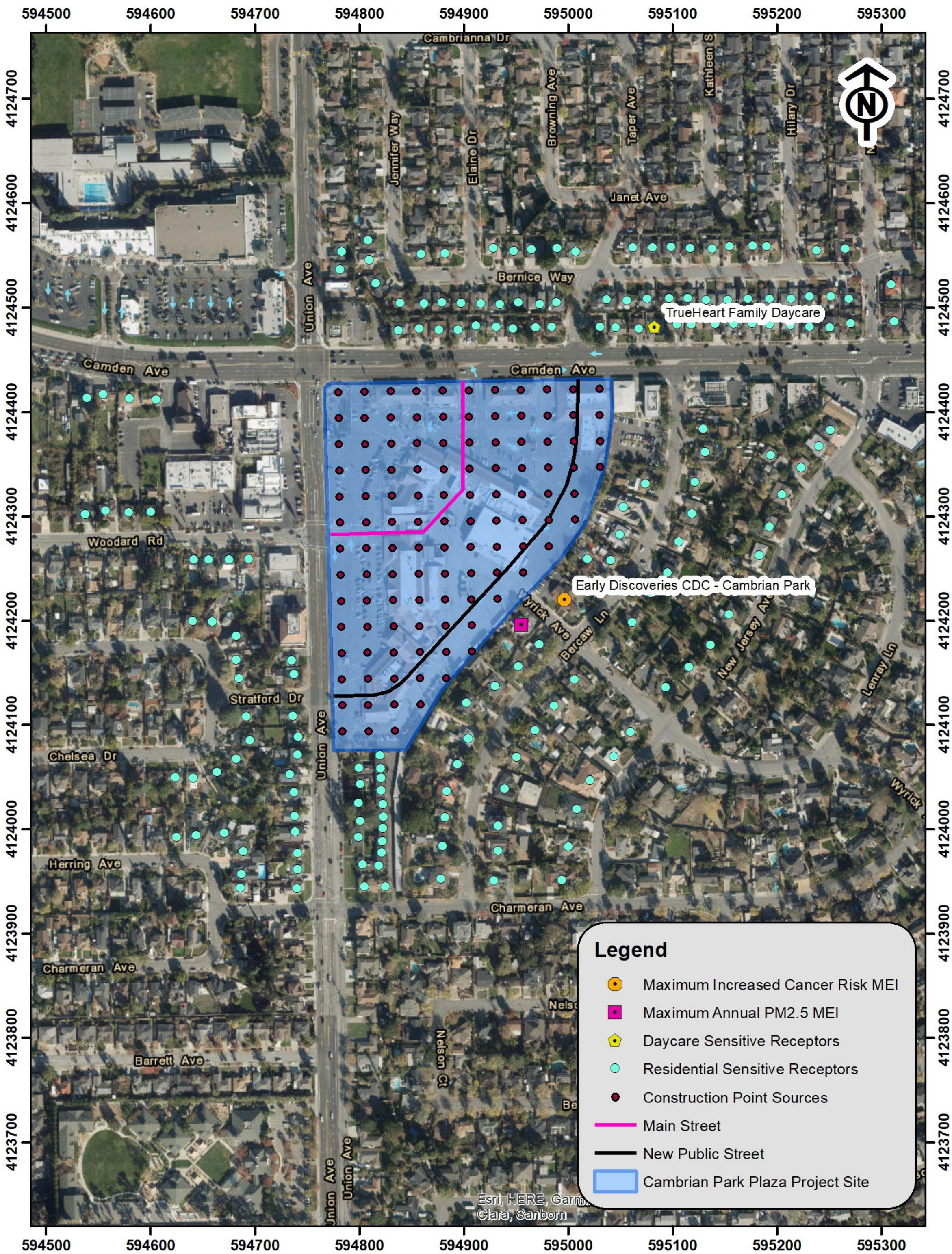
Community Risks from Project Operation

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

<u>Operational Traffic</u>

The project would generate either 8,151 gross trips per day for Alternative 1 or 8,931 gross trips for Alternative 2. A majority of these trips would be from light-duty, gasoline vehicles (i.e. passenger cars). To address the added community risks, the impact from this traffic was assessed using the CT-EMFAC 2017 emissions model, AERMOD dispersion model and cancer risk calculations following BAAQMD methodology described in *Attachment 1*.

Figure 1. Project Construction Site, Project Traffic, Locations of Off-Site Sensitive Receptors and Maximum TAC Impacts



Traffic Emissions

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on both roadways using the Caltrans (CT) version of the EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (e.g., TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear from re-entrained roadway dust were included in these emissions.

DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (i.e., Santa Clara County), type of road, traffic mix assigned by EMFAC2017 for the Santa Clara County (i.e., same as used in CalEEMod modeling), year of analysis, and season. Based on the EMFAC2017 fleet mix post-model calculations, a truck percentage of 2.2 percent was used instead of the default CT-EMFAC 2017 truck percentage since these roadways would not be for truck routes. A lower truck percentage is then appropriate.

The CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2024. Year 2024 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated. For the Early Discoveries CDC – Cambrian Park daycare, a four-year exposure period was used since the daycare is for children between 6 months to six years old and during the first three years the children would be exposed to project construction.

Traffic Dispersion Modeling Inputs

A conservative analysis was conducted where all local emissions from on- and near-site travel were assumed to occur onsite along the Main Street and the New Public Street site rather than at the site plus roadway segments further from the site. These roadways are closer to sensitive receptors compared to Camden Avenue and Union Avenue.

The gross daily trips predicted by the traffic consultant were used to assess project traffic impacts.[23] Since Main Street would primarily serve future employees and customers and the New Public Street would serve primarily for future residents, the gross daily trips were separated by land use. All retail, commercial, and assisted living/general office space trips were placed on Main Street, while all the residential trips were placed on the New Public Street.

For Alternative 1, 6,619 trips out of the total 8,151 trips were placed on Main Street, while the remaining 1,532 trips were placed on New Public Street. For Alternative 2, 7,435 trips were placed on Main Street and 1,496 trips were placed on New Public Street.

[23] Hexagon Transportation Consultants, Inc. 2020. *Cambrian Park Plaza Mixed-Use Village Development*. August.

The Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[24] which were then applied to the trip volumes to obtain estimated hourly traffic volumes and emissions for both roadways. In addition, a travel speed of 15 miles per hour (mph) was conservatively used for both roadways to account for the lower travel speeds onsite and idling.

Dispersion Modeling

Operational traffic roadway travel emissions were modeled with the AERMOD model using line-area sources (a series of adjacent area sources along a line) to represent traffic emissions on roadway segments within about 1,000 feet of the project site. Five years (2013-2017) of hourly meteorological data from the San José International Airport prepared for use with the AERMOD model by the BAAQMD, were used for the modeling. TAC and $PM_{2.5}$ concentrations for 2024 were calculated by the model at the same sensitive receptor locations used for the construction health risk modeling.

[24] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2017 does not include Burden type output with hour by hour traffic volume information.

Table 9 lists the roadway risks and hazards at the location of the MEI.

Operational Stationary Equipment

Stationary equipment that would be permitted by BAAQMD and emit TACs or $PM_{2.5}$ has not been identified for this project.

Summary of Project-Related Community Risks at the MEI

As shown in

Table 9, the unmitigated increased cancer risks from project activities at the increased cancer risk MEI location (i.e. Early Discoveries CDC – Cambrian Park daycare) would exceed the single-source significance thresholds. The annual maximum $PM_{2.5}$ concentration from project activities at the residential location would also exceed the BAAQMD single-source threshold. However, with *Mitigation Measures AQ-1* and *AQ-2*, the mitigated project risk and hazard values would not exceed the BAAQMD single-source significance thresholds.

The project community risks at the TrueHeart Family Daycare and at the residential single-family home most impacted by project construction are also listed for informational purposes. Note that the maximum annual $PM_{2.5}$ concentration was identified at a residential single-family home; therefore, the annual $PM_{2.5}$ concentration listed for the Project MEI (i.e. Early Discoveries CDC – Cambrian Park daycare) would be the same for the residential single-family home location. The annual $PM_{2.5}$ concentration is not age-sensitive but based on an annual maximum.

Table 9. Maximum Project Risk Impacts at the Offsite Receptors

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Early Discoveries CDC – Cambrian Park Daycare (MEI)				
Project Construction (Years 0-3)	Unmitigated	**69.58**[1]	**0.49**[2]	0.02[1]
	Mitigated	7.14[1]	0.09[2]	<0.01[1]
Project Operation (Years 4-7)				
	Alternative 1 Traffic	0.88	0.15	<0.01
	Alternative 2 Traffic	0.91	0.16	<0.01
Total Project Impact – Includes Alternative 1 Traffic				
	Unmitigated	**70.46**	**0.49**	0.02
	Mitigated	8.02	0.15	<0.01
Total Project Impact – Includes Alternative 2 Traffic				
	Unmitigated	**70.49**	**0.49**	<0.01
	Mitigated	8.05	0.16	<0.01
	BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
	Exceed Threshold?			
	Unmitigated	***Yes***	***Yes***	*No*
	Mitigated	*No*	*No*	*No*
TrueHeart Family Daycare Exposure [3]				
Project Construction	Unmitigated	8.06	0.03	<0.01
	Mitigated	0.83	<0.01	<0.01
Project Operation (Years 4-7)				
	Alternative 1 Traffic	0.09	0.01	<0.01
	Alternative 2 Traffic	0.10	0.01	<0.01
Total Project Impact – Includes Alternative 1 Traffic				
	Unmitigated	8.15	0.03	<0.01
	Mitigated	0.92	0.01	<0.01
Total Project Impact – Includes Alternative 2 Traffic				
	Unmitigated	8.16	0.03	<0.01
	Mitigated	0.93	0.01	<0.01
Residential Exposure [3]				
Project Construction	Unmitigated	23.96	0.49	0.02
	Mitigated	2.42	0.09	<0.01
Project Operation (Years 4-30)				
	Alternative 1 Traffic	0.25	0.15	<0.01
	Alternative 2 Traffic	0.27	0.16	<0.01
Total Project Impact – Includes Alternative 1				
	Unmitigated	**24.21**	**0.49**	0.02
	Mitigated	2.67	0.15	<0.01
Total Project Impact – Includes Alternative 2				
	Unmitigated	**24.23**	**0.49**	<0.01
	Mitigated	2.69	0.16	<0.01

Notes: [1]Based on the location of the Early Discoveries CDC – Cambrian Park daycare. [2]Based on the location of a single-family home. [3]Listed for informational purposes

Cumulative Community Risks of all TAC Sources at 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 freeways or highways, busy surface streets, and stationary sources identified by BAAQMD.

A review of the project area indicates that traffic on Camden Avenue and Union Avenue would exceed 10,000 vehicles per day. Other nearby streets are assumed to have less than 10,000 vehicles per day. Note that the traffic volumes differ for Alternative 1 and Alternative 2 due to difference in land uses. Therefore, Camden Avenue and Union Avenue were analyzed for both alternatives.

A review of BAAQMD's stationary source geographic information systems (GIS) map tool identified three stationary sources with the potential to affect the project MEI. Figure 2 shows the location of the sources affecting the MEI. Community risk impacts from these sources upon the MEI reported in Table 10. Details of the modeling and community risk calculations are included in *Attachment 5.*

<u>BAAQMD Permitted Stationary Sources</u>

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018* GIS website.[25] This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts. Three permitted facilities were identified with two being gas dispensing facility (Moe's Stop [Facility ID #111349] and Kwikserv [Facility ID 112043]) and one facility located on the project site (Weingarten Realty [Facility ID 23362]).

A request for daily emissions from the facility was submitted to BAAQMD, who provided updated emissions data.[26] The screening risks and hazards for the two gas dispensing facilities were adjusted for distance using BAAQMD's *Gasoline Dispensing Facility Distance Multiplier Tool.* The Weingarten Realty facility would be removed due to the project; therefore, its risk and hazards were netted out of the total cumulative risks and hazard values. Note that no age-sensitivity factors were included in the screening analysis, so risks would be similar or lower if adjustments were included. Table 10 lists the risks and hazards from the stationary source.

<u>Local Roadways – Camden Avenue and Union Avenue</u>

A refined analysis of potential health impacts from vehicle traffic on Camden Avenue and Union Avenue was conducted. The refined analysis involved predicting emissions for the traffic volume and mix of vehicle types on both roadways near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks are then computed based on the modeled exposures.

[25] BAAQMD, Web: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65
[26] Correspondence with Areana Flores, BAAQMD, 3 March 2020.

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on both roadways using the Caltrans (CT) version of the EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, $PM_{2.5}$ and total organic compounds (e.g., TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for $PM_{2.5}$. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear from re-entrained roadway dust were included in these emissions.

DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (i.e., Santa Clara County), type of road, truck percentage (CT-EMFAC2017 Santa Clara County default truck percentages), traffic mix assigned by CT-EMFAC2017 for the county, year of analysis, and season. The CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2024. Year 2024 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated. For the Early Discoveries CDC – Cambrian Park daycare, a seven-year exposure period was used since the daycare is for children between 6 months to six years old.

The ADT on Camden Avenue and Union Avenue was based on the AM and PM peak-hour data cumulative plus project traffic volumes.[27] For Alternative 1, the ADT on Camden Avenue and Union Avenue would be 36,235 and 19,800 vehicles, respectively. For Alternative 2, the ADT on Camden Avenue and Union Avenue would be 36,120 and 19,030 vehicles, respectively. The Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[28] which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for both roadways.

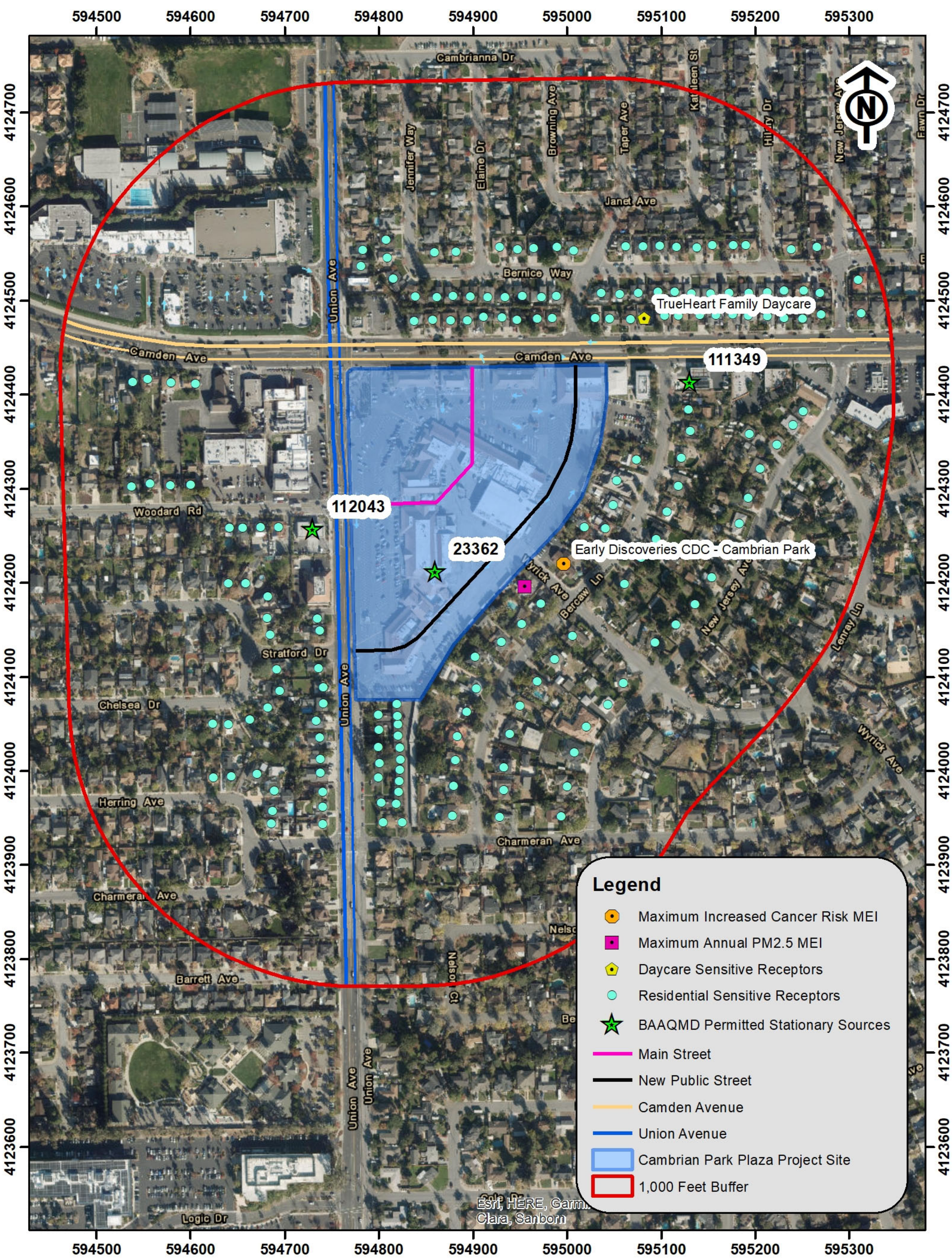
For Camden Avenue, an average travel speed of 40 miles per hour (mph) was used for all for all hours of the day based on the posted speed limit. For Union Avenue, an average travel speed of 35 mph was used based on the posted speed limit.

Dispersion Modeling

Both roadways modeled with the AERMOD model using line-area sources (a series of adjacent area sources along a line) to represent traffic emissions on roadway segments within about 1,000 feet of the project site. Five years (2013-2017) of hourly meteorological data from the San José International Airport prepared for use with the AERMOD model by the BAAQMD, were used for the modeling. TAC and $PM_{2.5}$ concentrations for 2024 were calculated by the model at the same sensitive receptor locations used for the construction health risk modeling. Table 10 lists the roadway risks and hazards at the location of the MEI.

[27] Hexagon Transportation Consultants, Inc. 2020. *Cambrian Park Plaza Mixed-use Village Development.* August.
[28] The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2017 does not include Burden type output with hour by hour traffic volume information.

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



Summary of Cumulative Risks at the MEI

Table 10 reports both the project and cumulative community risk impacts. The project's community risk caused by project construction activities would exceed the increased cancer single-source thresholds. However, the cumulative annual increased cancer risk, maximum $PM_{2.5}$ concentration, and hazard risk values would not exceed the cumulative threshold for either alternatives. To mitigate the construction risk impacts, the project would be subject to *Mitigation Measures AQ-1 and AQ-2*, which are described above under Impact AQ-1.

Table 10. Cumulative Community Risk Impacts at the Location of the MEI

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Project Impacts			
Total Project Impact – Includes Alternative 1 Traffic			
Unmitigated	**70.46**	**0.49**	0.02
Mitigated	8.02	0.15	<0.01
Total Project Impact – Includes Alternative 2 Traffic			
Unmitigated	**70.49**	**0.49**	<0.01
Mitigated	8.05	0.16	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	***Yes***	*No*
Mitigated	*No*	*No*	*No*
Cumulative Sources			
Alternative 1 - Camden Avenue, ADT 36,235	1.44	0.07	<0.01
Alternative 1 - Union Avenue, ADT 19,800	1.16	0.06	<0.01
Alternative 2 - Camden Avenue, ADT 36,120	1.59	0.07	<0.01
Alternative 2 - Union Avenue, ADT 19,030	1.19	0.06	<0.01
Moe's Stop (Facility ID #111349, Gas Dispensing Facility) MEI Distance at 670 0feet	1.48	-	0.01
Kwikserv (BMZ Investment Inc) (Facility ID #111349, Gas Dispensing Facility) MEI Distance at 880 feet	0.17	-	<0.01
Weingarten Realty (Facility ID #23362) – To Be Removed	*-0.02*	-	-
Cumulative Sources – Alternative 1 Roads			
Unmitigated	74.69	0.62	<0.06
Mitigated	12.25	0.28	<0.05
Cumulative Sources – Alternative 2 Roads			
Unmitigated	74.90	0.62	<0.05
Mitigated	12.46	0.29	<0.05
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold – Alternative 1 or 2 Roads?			
Unmitigated	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*

Effectiveness of Mitigation Measure AQ-1 and AQ-2

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 interim engines standards, and the BAAQMD best management practices were applied. With the implementation of *Mitigation Measure AQ-1 and AQ-2*, the increased cancer risk from project construction would be reduced from 69.58 per million to 7.14 per million. The annual $PM_{2.5}$ concentration would be reduced from 0.49 μg/m^3 to 0.09 μg/m^3. These mitigated community risk values would not exceed the BAAQMD single-source thresholds of greater than 10.0 per million and greater than 0.3 μg/m^3. When Alternative 1 project operation impacts are added, mitigated cancer risk would be 8.02 per million and the mitigated annual $PM_{2.5}$ concentration would be 0.15 μg/m^3. When Alternative 2 project operation impacts are added, mitigated cancer risk would be 8.05 per million and the mitigated annual $PM_{2.5}$ concentration would be 0.16 μg/m^3.

Non-CEQA: Onsite Community Risk Assessment for TAC Sources

The proposed project would provide new residences. Therefore, onsite residential sensitive receptors were assumed to include infants, children, and adults. The nearby sources of TACs and their impacts upon the on-site sensitive receptors was assessed.[29] Figure 3 shows the on-site sensitive receptors in relation to the nearby TAC sources. The risk impacts from the TAC sources are shown in Table 11**.** See *Attachment 5* for the community risks results.

Local Roadways – Camden Avenue & Union Avenue

The roadway analysis was done in the same manner for the off-site sensitive receptors as described in the project traffic dispersion modeling section (see above). A 30-year residential exposure period was used in the risk calculations and a breathing height of 5 feet was used.

BAAQMD Permitted Stationary Sources

The stationary source analysis was done in the same manner as described above for the project MEI.

Summary of Cumulative Community Risks at the Project Site

Community risk impacts from the TAC sources upon the project site are reported in Table 11. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. The $PM_{2.5}$ concentrations from the roadways would both thresholds. *Condition of Approval AQ-1* is recommended to reduce the $PM_{2.5}$ concentration from the local roadways.

Table 11. Cumulative Community Risk Impacts Upon the Onsite Sensitive Receptors

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Alternative 1 - Camden Avenue, ADT 36,235	5.88	**0.55**	<0.01
Alternative 1 - Union Avenue, ADT 19,800	3.75	**0.45**	<0.01
Alternative 2 - Camden Avenue, ADT 36,120	5.70	**0.55**	<0.01
Alternative 2 - Union Avenue, ADT 19,030	3.75	**0.45**	<0.01
Moe's Stop (Facility ID #111349, Gas Dispensing Facility) MEI Distance at 680 feet	7.39	-	0.03
Kwikserv (BMZ Investment Inc) (Facility ID #111349, Gas Dispensing Facility) MEI Distance at 870 feet	2.48	-	0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	*No*	***Yes***	*No*
Cumulative Sources – Alternative 1	19.50	**1.0**	<0.06
Cumulative Sources – Alternative 2	19.32	**1.0**	<0.06
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?	*No*	***Yes***	*No*

[29] We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473

Condition of Approval AQ-1: **Include high-efficiency particulate filtration systems in residential ventilation systems.**

The significant exposure for new project residential receptors is judged by two effects: (1) increased cancer risk, and (2) annual $PM_{2.5}$ concentration. Exposure to annual $PM_{2.5}$ concentrations from the surrounding roadway traffic on Camden Avenue and Union Avenue is above the threshold, while cancer risk impacts are below thresholds. Cancer risk is mostly the result of exposure to diesel particulate matter, although, gasoline vehicle exhaust contributes to this effect. Annual $PM_{2.5}$ concentrations are based on the exposure to $PM_{2.5}$ resulting from emissions attributable to truck and auto exhaust, the wearing of brakes and tires and re-entrainment of roadway dust from vehicles traveling over pavement. The modeled $PM_{2.5}$ exposure to project site drives the condition of approval. Reducing particulate matter exposure would reduce both annual $PM_{2.5}$ exposures and cancer risk.

The project shall include the following measures to minimize long-term annual $PM_{2.5}$ exposure for new project occupants:

1. Install air filtration in the residential buildings where annual PM2.5 concentrations exceed 0.3 $\mu g/m^3$. Note that the analysis provided in this analysis identified maximum impacts to planned residences where some residences may have concentrations below the threshold. Air filtration devices shall be rated MERV13 or higher for all portions of the site. To ensure adequate health protection to sensitive receptors (i.e. third trimester fetuses, infants, children, and adults), this ventilation system, whether mechanical or passive, all fresh air circulated into the dwelling units shall be filtered. Specific portions of the project site that requires this filtration could be further identified by modeling.

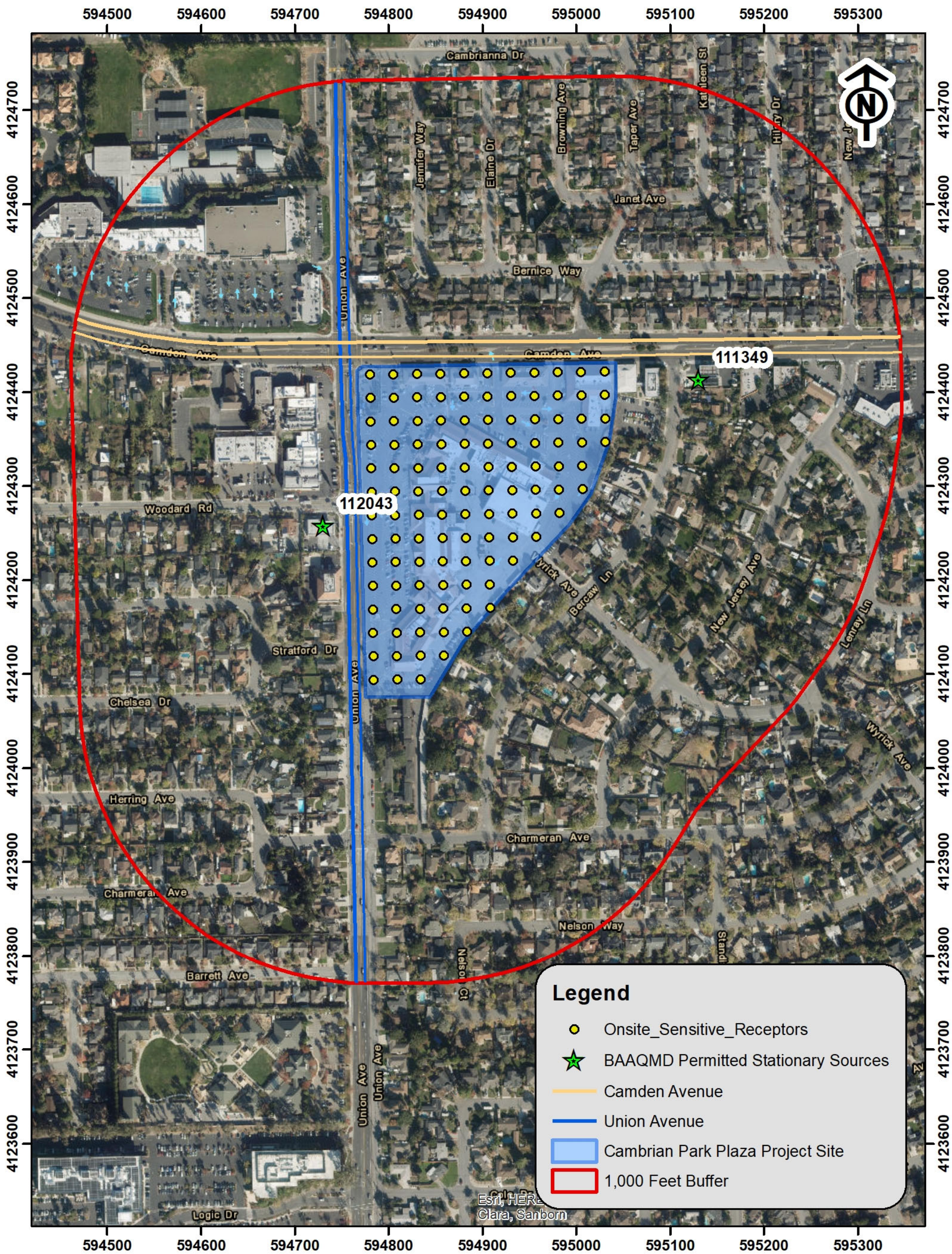
2. As part of implementing this measure, an ongoing maintenance plan for the buildings' heating, ventilation, and air conditioning (HVAC) air filtration system shall be required.

3. Ensure that the use agreement and other property documents: (1) require cleaning, maintenance, and monitoring of the affected buildings for air flow leaks, (2) include assurance that new owners or tenants are provided information on the ventilation system, and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.

Effectiveness: A system with MERV13 would achieve an 80-percent reduction.[30] Increased cancer risk and $PM_{2.5}$ exposures for MERV13 filtration cases were calculated assuming a combination of outdoor and indoor exposure. For use of MERV13 filtration systems, without the additional use of sealed, inoperable widows and outdoor exposure of three hours to ambient $PM_{2.5}$ concentrations and 21 hours of indoor exposure to filtered air was assumed. In this case, the effective control efficiency using a MERV13 filtration system is about 70 percent for $PM_{2.5}$ exposure. The installation of MERV13 filtration systems to the residential buildings would reduce the maximum annual $PM_{2.5}$ concentration caused by Camden Avenue and Union Avenue from 1.0 $\mu g/m^3$ to 0.30 $\mu g/m^3$. Therefore, these concentrations would not exceed the single source threshold of an annual $PM_{2.5}$ concentration of 0.3 $\mu g/m^3$.

[30] Bay Area Air Quality Management District (2016). Appendix B: Best Practices to Reduce Exposure to Local Air Pollution, *Planning Healthy Places A Guidebook for Addressing Local Sources of Air Pollutants in Community Planning* (p. 38). http://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf?la=en

Figure 3. Onsite Project Sensitive Receptors and Nearby TAC and $PM_{2.5}$ Sources



Greenhouse Gas Emissions

Setting

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

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

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

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

Recent Regulatory Actions for GHG Emissions

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

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

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

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 80 percent below 1990 levels.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State's main strategies to reduce GHGs from business-as-usual emissions projected in 2020 back down to 1990 levels. Business-as-usual (BAU) is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO_2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

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

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*.[31] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive

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

Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons CO_2e per capita (statewide) by 2030 and no more than 2 metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

Executive Order B-55-18 – Carbon Neutrality

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

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

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

Senate Bill 350 - Renewable Portfolio Standards

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

Senate Bill 100 – Current Renewable Portfolio Standards

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2017 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

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

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[32] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2019 California Building Standard Code) was effective as of January 1, 2020.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2019 Energy Code) replaced the 2016 Energy Code as of January 1,2020. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic

[32] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.

systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[33]

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2018, total gross nationwide GHG emissions were 6,676.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[34] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.[35] In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017. The most recent Bay Area emission inventory was computed for the year 2011.[36] The Bay Area GHG emission were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011

GHG Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons (MT) per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate.

Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.6 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_{2e}/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.6 is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels.[37] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_{2e}/year threshold.

[33] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

[34] United States Environmental Protection Agency, 2020. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018*. April. Web: https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf

[35] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Web: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf

[36] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Web: http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.

[37] Association of Environmental Professionals, 2016. *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. April.

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

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, the generator, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above. CalEEMod output is included in *Attachment 2*.

Service Population

The project service population efficiency rate is based on the number of employees and residents. To calculate the residential population, a rate of 3.19 persons per household was used from the California Department of Finance and multiplied by the total number of dwelling units (i.e. 320 dwelling units).[38] The residential population, not including the assisted living facility for Alternative, would be approximately 1,257 residents.

To estimate the employee population for the restaurant space, retail space, and hotel, the City of San José Employment Density and Floor Area Ratio Assumptions by Land Use Type rates were used.[39] The Retail (Small) rate of 250 gross square feet per employee was used for the 18,000 sf of retail. The Hotel rate of 2,000 gross square feet per employee was used for the hotel and restaurant space. This resulted in approximately 72 retail employees, 104 hotel employees, and 21 restaurant employees. The employee population, not including the office space for Alternative 2, would be 197 employees.

In addition, there is the assisted living facility for Alternative 1 and the office space for Alternative 2. The assisted living facility would house 185 adult residents (based on the bed count) and the general office space would have approximately 533 employees based on the Traditional Office Space rate of 300 gross square feet per employee. Therefore, the total service population for Alternative 1 would be 1,639 persons and for Alternative 2 it would be 1,987 persons.

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[38] State of California, Department of Finance, 2020. *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2020*. May. Web: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/

[39] Strategic Economics, 2016. *San Jose Market Overview and Employment Land Analysis*. January. Web: https://www.sanjoseca.gov/home/showdocument?id=22529

Construction GHG Emissions

GHG emissions associated with construction were computed to be 4,978 MT of CO_2e for the total construction period of Alternative 1 and Alternative 2. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational GHG Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully developed site under the proposed project. CalEEMod models were run for the opening year (2024) and future year (2030) for both the project and existing land use. It was assumed that electricity from SJCE would be 100 percent carbon free, the single-family homes would 100 percent electrified per the natural gas reach code in the City, and there would be no wood or natural gas hearths included in the project design.

As shown in Table 12, net annual emissions from the Alternative 1 are predicted to be 2,903 MT of CO_2e in 2030 and 3,358 MT of CO_2e in 2030 for Alternative 2. The service population emissions for Alternative 1 would be 3.5 MT/CO_{2e}/year/service population in 2030 and 3.2 MT/CO_{2e}/year/service population for Alternative 2.

To be considered an exceedance in the City of San José, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in the future year of 2030. Both the net metric ton emissions and service population emissions exceed the thresholds. Therefore, the project would be in exceedance for GHG emissions. This would be a *potentially significant impact*.

Table 12. Annual Project GHG Emissions (CO_2e) in Metric Tons and by Service Population for Alternative 1 and Alternative 2

Source Category	Existing Land Use in 2024	Proposed Project in 2024	Existing Land Use in 2030	Proposed Project in 2030
ALTERNATIVE 1				
Area	<1	7	<1	7
Energy Consumption	22	1,125	22	1,125
Mobile	3,118	4,587	2,772	4,078
Solid Waste Generation	90	519	90	519
Water Usage	17	75	17	75
Metric Ton Total	3,247	6,313	2,901	5,803
Net Metric Tons		**3,066**		**2,903**
Bright-Line Significance Threshold		-		*660 MT of CO_2e*
Service Population Emissions[1]		**3.9**		**3.5**
Service Population Significance Threshold		-		*2.6 MT of CO_2e/year/service population*
Exceed Both Thresholds?				***Yes***
ALTERNATIVE 2				
Area	<1	5	<1	5
Energy Consumption	22	1,179	22	1,179
Mobile	3,118	5,028	2,772	4,470
Solid Waste Generation	90	508	90	508
Water Usage	17	97	17	97
Metric Ton Total	3,247	6,818	2,901	6,259
Net Metric Tons		**3,571**		**3,358**
Bright-Line Significance Threshold				*660 MT of CO_2e*
Service Population Emissions[2]		**3.4**		**3.2**
Service Population Significance Threshold				*2.6 MT of CO_2e/year/service population*
Exceed Both Thresholds?				**Yes**
Note: [1]Based on a service population of 1,639 persons. [2]Based on a service population of 1,987 persons.				

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 EMFAC2017 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

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 screening community risk calculations from sources affecting the MEI.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminants (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.[40] 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.[41] 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.[42] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

<u>Cancer Risk</u>

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). However, CARB and the BAAQMD recommend the use of a residential exposure duration of 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.

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

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[40] 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.
[41] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[42] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

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 for moderate intensity.

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:

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

Where:

CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

Where:

C_{air} = concentration in air ($\mu g/m^3$)
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

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

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

Parameter	Exposure Type → / Age Range →	Infant 3rd Trimester	Infant 0<2	Child 2 < 16	Adult 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) 80th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95th 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*

* Exposure Frequency can change dependent on the type of receptors (i.e. residential, worker, school, daycare). For worker exposures (adult), the exposure duration and frequency are 25 years 250 days/year and FAH is not applicable.

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 ($\mu g/m^3$).

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 Input Assumptions and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: **CAMBRIAN PARK PLAZA**

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size
- 73 Dwelling Units — 18.21 total project acres disturbed
- 269050 s.f. residential
- 55820 s.f. retail
- 161130 s.f. HOTEL COMMERCIAL
- 158,000 s.f.ASSISTED LIVING COMMERCIAL:
- 588830 s.f. parking garage — 1345 spaces
- 10000 s.f. parking lot — 61 spaces

Construction Hours 7 am to 5 pm

Pile Driving? Y/N? N

*At the time of the analysis, Project Applicant decided not to include onsite project generators

Project include OPERATIONAL GENERATOR OR FIRE PUMP on-site? Y/N? __Y__*

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: .75

Fuel Type: DIESEL

Location in project (Plans Desired if Available):

Revise the total work days for all equipment — IR Edits: Start//End Dates Match Total Work Days

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

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments
	Demolition	**Start Date:**	**8/15/2021**	**Total phase:**	**45**			**Overall Import/Export Volumes**
		End Date:	**10/15/2021**					
12	Concrete/Industrial Saws	81	0.73	5	30	3.3	1800	**Demolition Volume**
4	Excavators	158	0.38	8	45	8.0	1440	171205 SF Existing Buildings
4	Rubber-Tired Dozers	247	0.4	8	45	8.0	1440	
4	Tractors/Loaders/Backhoes	97	0.37	8	45	8.0	1440	**500000 SF of existing paving**
	Site Preparation	**Start Date:**	**10/1/2021**	**Total phase:**	**84**			
		End Date:	**1/26/2020**					
4	Graders	187	0.41	8	43	4.1	1376	
4	Rubber Tired Dozers	247	0.4	8	70	6.7	2240	
5	Tractors/Loaders/Backhoes	97	0.37	8	84	8.0	3360	
	Grading / Excavation	**Start Date:**	**2/1/2022**	**Total phase:**	**114**			
		End Date:	**7/8/2022**					**Soil Hauling Volume**
7	Excavators	158	0.38	8	80	5.6	4480	Export Volume = 400,000 cubic yards
2	Graders	187	0.41	7	100	6.1	1400	Import Volume assumed as Zero
4	Rubber Tired Dozers	247	0.4	5	20	0.9	400	
3	Concrete/Industrial Saws	81	0.73	5	114	5.0	1710	
6	Tractors/Loaders/Backhoes	97	0.37	6	55	2.9	1980	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**5/1/2022**	**Total phase:**	**138**			
		End Date:	**11/9/2022**					
6	Tractor/Loader/Backhoe	97	0.37	8	55	3.2	2640	
2	Excavators	158	0.38	6	103	4.5	1236	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**8/1/2022**	**Total phase:**	**260**			**Cement Trucks? _?_ Total Round-Trips**
		End Date:	**7/28/2023**					
5	Cranes	231	0.29	8	195	6.0	7800	Diesel
4	Forklifts	89	0.2	5	260	5.0	5200	Diesel
2	Generator Sets	84	0.74	4	15	0.2	120	Temp Power we assumed only a small amount of generator use
4	Tractors/Loaders/Backhoes	97	0.37	6	220	5.1	5280	
3	Welders	46	0.45	8	30	0.9	720	
	Other Equipment?							
Building - Interior/Architectural Coating		**Start Date:**	**10/1/2022**	**Total phase:**	**260**			
		End Date:	**9/30/2023**					
20	Air Compressors	78	0.48	8	195	6.0	31200	
8	Aerial Lift	62	0.31	8	130	4.0	8320	
	Other Equipment?							
	Paving	**Start Date:**	**8/1/2023**	**Total phase:**	**70**			
		Start Date:	**11/6/2023**					
4	Cement and Mortar Mixers	9	0.56	4	35	2.0	560	
2	Pavers	130	0.42	5	23	1.6	230	**Asphalt Cubic yards**
2	Paving Equipment	132	0.36	5	23	1.6	230	
2	Rollers	80	0.38	8	23	2.6	368	
1	Tractors/Loaders/Backhoes	97	0.37	2	70	2.0	140	
	Other Equipment?							
	Additional Phases	**Start Date:**		**Total phase:**				
		Start Date:						
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

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

Complete one sheet for each project component

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Construction Criteria Air Pollutants - Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2021	0.35	3.62	0.18	0.16	363	
2022	1.98	4.54	0.21	0.20	724	
2023	4.95	3.70	0.17	0.17	666	
EMFAC						
2021	0.10	1.35	0.08	0.04	567	
2022	0.21	3.05	0.18	0.08	1,453	
2023	0.14	2.09	0.14	0.07	1,204	
Total Construction Emissions by Year						
2021	0.45	4.96	0.25	0.20	930	
2022	2.19	7.59	0.39	0.29	2,177	
2023	5.09	5.79	0.32	0.23	1,870	
	Total Construction Emissions					
Tons	7.7	18.3	1.0	0.7	4,978	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
Thresholds	***54***	***54***	***82***	***54***		
2021	9	99	5	4		100
2022	17	58	3	2		260
2023	46	52	3	2		221

Construction Criteria Air Pollutants - Mitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
Construction Equipment						
2021	0.07	1.37	0.01	0.01	363	
2022	1.65	3.09	0.02	0.02	724	
2023	4.66	2.88	0.03	0.03	666	
EMFAC						
2021	0.10	1.35	0.08	0.04	567	
2022	0.21	3.05	0.18	0.08	1,453	
2023	0.14	2.09	0.14	0.07	1,204	
Total Construction Emissions by Year						
2021	0.17	2.72	0.08	0.05	930	
2022	1.86	6.14	0.20	0.11	2,177	
2023	4.80	4.97	0.18	0.10	1,870	
	Total Construction Emissions					
Tons	6.8	13.8	0.5	0.3	4,978	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
Thresholds	***54***	***54***	***82***	***54***		
2021	3	54	2	1		100
2022	14	47	2	1		260
2023	43	45	2	1		221

Operational Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Year	Tons			
Total	7.07	4.60	5.12	1.47
	Existing Use Emissions			
Total	2.71	2.48	3.40	0.93
	Net Annual Operational Emissions			
Tons/year	4.36	2.13	1.72	0.54
	Average Daily Emissions			
Pounds Per Day	23.9	11.7	9.4	3.0

Category	**CO2e - Alternative 1**			
	Project - Alt 1	Existing	Project 2030	Existing
Area	7	0	7	0
Energy	1,125	22	1,125	22
Mobile	4,587	3,118	4,078	2,772
Waste	519	90	519	90
Water	75	17	75	17
TOTAL	6,313	3,247	5,803	2,901
Net GHG Emissions		3,066		2,903
Service Population	1,618			
Service Population Emissions		3.90		3.59

Construction Criteria Air Pollutants - Unmitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
	Construction Equipment					
2021	0.35	3.62	0.18	0.16	363	
2022	1.91	4.54	0.21	0.20	724	
2023	4.73	3.70	0.17	0.17	666	
	EMFAC					
2021	0.10	1.35	0.08	0.04	567	
2022	0.21	3.05	0.18	0.08	1,453	
2023	0.14	2.09	0.14	0.07	1,204	
	Total Construction Emissions by Year					
2021	0.45	4.96	0.25	0.20	930	
2022	2.12	7.59	0.39	0.29	2,177	
2023	4.87	5.79	0.32	0.23	1,870	
	Total Construction Emissions					
Tons	7.4	18.3	1.0	0.7	4,978	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
Thresholds	*54*	*54*	*82*	*54*		
2021	9	99	5	4		100
2022	16.31	58	3	2		260
2023	44	52	3	2		221

Construction Criteria Air Pollutants - Mitigated						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons				MT	
	Construction Equipment					
2021	0.07	1.37	0.01	0.01	363	
2022	1.58	3.09	0.02	0.02	724	
2023	4.44	2.88	0.03	0.03	666	
	EMFAC					
2021	0.10	1.35	0.08	0.04	567	
2022	0.21	3.05	0.18	0.08	1,453	
2023	0.14	2.09	0.14	0.07	1,204	
	Total Construction Emissions by Year					
2021	0.17	2.72	0.08	0.05	930	
2022	1.79	6.14	0.20	0.11	2,177	
2023	4.58	4.97	0.18	0.10	1,870	
	Total Construction Emissions					
Tons	6.5	13.8	0.5	0.3	4,978	
Pounds/Workdays	*Average Daily Emissions*				Workdays	
Thresholds	*54*	*54*	*82*	*54*		
2021	3	54	2	1		100
2022	14	47	2	1		260
2023	41	45	2	1		221

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	7.19	4.95	5.60	1.60		
	Existing Use Emissions					
Total	2.71	2.48	3.40	0.93		
	Net Annual Operational Emissions					
Tons/year	4.48	2.47	2.20	0.67		
	Average Daily Emissions					
Pounds Per Day	24.6	13.5	12.1	3.7		

Category	**CO2e - Alternative 2**			
	Project - Alt 2	Existing	Project 2030	Existing
Area	5	0	5	0
Energy	1,179	22	1,179	22
Mobile	5,028	3,118	4,470	2,772
Waste	508	90	508	90
Water	97	17	97	17
TOTAL	6,818	3,247	6,259	2,901
Net GHG Emissions		3,571		3,359
Service Population	1,966			
Service Population Emissions		3.47		3.18

Traffic Consultant Trip Gen					CalEEMod Default		
Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
Single Family Homes	49	1,532	291	***5.94***	9.52	9.91	8.62
Reduction		*19%*			*Rev*	***6.18***	***5.38***
Reduction							
Townhomes	25	1,532	123	***4.90***	5.81	5.67	4.84
Reduction		*8%*			*Rev*	***4.78***	***4.08***
Reduction							
Apartments	320	1,532	1,118	***3.49***	6.65	6.39	5.86
Reduction		*73%*			*Rev*	***3.36***	***3.08***
Strip Mall	18	4135	538	***29.86***	44.32	42.04	20.43
Reduction		*13%*			*Rev*	***28.33***	***13.77***
High Turn-Over (Sit-Down) Restaurant	42	4135	3,597	***85.65***	127.15	158.37	131.84
Reduction		*87%*			*Rev*	***106.68***	***88.81***
Reduction							
Hotel	230	2813	2,203	***9.58***	8.17	8.19	5.95
Reduction		*-281*			*Rev*	***9.60***	***6.98***
Reduction		*-329*					
Assisted Living	185	481	438	***2.37***	2.74	2.2	2.44
Reduction		*-43*			*Rev*	***1.90***	***2.11***
Existing Strip Mall	170.427	6434	6,434	***37.75***	44.32	42.04	20.43
					Rev	***35.81***	***17.40***

Table 6
Project Trip Generation Estimates – Alternative 1

								AM Peak Hour						PM Peak Hour					
	ITE Land	VMT[4]		%		Daily		Pk-Hr	Split		Trip			Pk-Hr	Split		Trip		
Land Use	Use Code	Existing	Project	Reduction	Size	Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Land Uses																			
Single-Family Homes	210 Single Family Detached Housing[1]				49 Dwelling Units	9.440	463	0.740	25%	75%	9	27	36	0.990	63%	37%	31	18	49
Townhomes	220 Multifamily Housing (Low-Rise)[1]				25 Dwelling Units	7.320	183	0.460	23%	77%	3	9	12	0.560	63%	37%	9	5	14
Apartments	221 Multifamily Housing (Mid-Rise)[1]				320 Dwelling Units	5.440	1,741	0.360	26%	74%	30	85	115	0.440	61%	39%	86	55	141
- Residential - Retail Internal Reduction[2]				*15%*			*-358*				*-6*	*-18*	*-24*				*-19*	*-12*	*-31*
- Location Based Reduction[3]				*13%*			*-264*				*-5*	*-13*	*-18*				*-14*	*-9*	*-23*
- VMT Reduction[4]		*10.3*	*8.94*	*13%*			*-233*				*-4*	*-12*	*-16*				*-12*	*-8*	*-20*
Residential Sub-Total							**1,532**				**27**	**78**	**105**				**81**	**49**	**130**
Retail	820 Shopping Center[1]				18,000 Square Feet	37.750	680	0.940	62%	38%	11	6	17	3.810	48%	52%	33	36	69
Restaurant	932 High Turn-Over (Sit-Down)[1]				42,000 Square Feet	112.180	4,712	9.940	55%	45%	229	188	417	9.770	62%	38%	254	156	410
- Residential - Retail Internal Reduction[2]				*15% of residential use*			*-358*				*-18*	*-6*	*-24*				*-12*	*-19*	*-31*
- Hotel - Retail Internal Reduction[5]				*10% of hotel use*			*-281*				*-6*	*-8*	*-14*				*-9*	*-8*	*-17*
- Location Based Reduction[3]				*13%*			*-618*				*-28*	*-23*	*-51*				*-35*	*-21*	*-56*
- Pass-by Reduction (Retail)[6]				*34%*			*-18*				*0*	*0*	*0*				*-9*	*-9*	*-18*
- Pass-by Reduction (Restaurant)[6]				*43%*			*-138*				*0*	*0*	*0*				*-88*	*-50*	*-138*
Commercial Sub-Total							**3,978**				**188**	**157**	**345**				**134**	**85**	**219**
Hotel	310 Hotel[1]				230 Occupied Rooms	12.230	2,813	0.620	58%	42%	83	60	143	0.730	49%	51%	82	86	168
- Hotel - Retail Internal Reduction[5]				*10%*			*-281*				*-8*	*-6*	*-14*				*-8*	*-9*	*-17*
- Location Based Reduction[3]				*13%*			*-329*				*-10*	*-7*	*-17*				*-10*	*-10*	*-20*
Hotel Sub-Total							**2,203**				**65**	**47**	**112**				**64**	**67**	**131**
Assisted Living	254 Assisted Living[1]				185 Beds	2.600	481	0.190	63%	37%	22	13	35	0.260	38%	62%	18	30	48
- Location Based Reduction[3]				*9%*			*-43*				*-2*	*-1*	*-3*				*-2*	*-3*	*-5*
Assisted Living Sub-Total							**438**				**20**	**12**	**32**				**16**	**27**	**43**
Baseline Vehicle Trips (Before Reductions)							11,073				387	388	775				513	386	899
Gross Project Trips							**8,151**				**300**	**294**	**594**				**295**	**228**	**523**
Existing Land Use																			
Retail[7]					170,427 Square Feet	37.750	-6,434				-147	-73	-220				-388	-362	-750
- Pass-by Reduction[6]				*34%*			255				0	0	0				132	123	255
Total Exising Trips with Pass-by Reduction							**-6,179**				**-147**	**-73**	**-220**				**-256**	**-239**	**-495**
Net Project Trips							**1,972**				**153**	**221**	**374**				**39**	**-11**	**28**

Notes:
[1] Source: ITE *Trip Generation Manual*, 10th Edition 2017, average trip generation rates.
[2] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with residential and retail components is equal to 15% off the smaller trip generator.
[3] The project site is located within an urban low-transit area based on the City of San Jose VMT Evaluation Tool (February 29, 2019). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2018). The trip reductions are based on the percent of mode share for all of the other modes of travel besides vehicle.
[4] VMT per capita for residential use. Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool. It is assumed that every percent reduction in VMT per-capita is equivalent to one percent reduction in peak-hour vehicle trips.
[5] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with hotel and retail components is equal to 10% off the smaller trip generator.
[6] A 34% PM pass-by reduction is applied to the retail use (LU 820 - Shopping Center) and a 43% PM pass-by reduction is applied to the restaurant use (LU 932 - High Turn-Over Restaurant), per the ITE *Trip Generation Handbook*, 3rd Edition 2017
[7] AM and PM peak hour trips for the existing uses on site were obtained from driveway counts at the existing shopping center conducted on May 2, 2019. Daily trips were estimated based on ITE trip generation rates. AM peak-hour driveway counts were adjusted to account for the observed cut-through of vehicles. Cut-through traffic was not observed during the PM peak hour.

Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
	Traffic Consultant Trip Gen				CalEEMod Default		
Single Family Homes	49	1,496	284	***5.80***	9.52	9.91	8.62
Reduction		*19%*			*Rev*	***6.04***	***5.25***
Reduction							
Townhomes	25	1,496	120	***4.79***	5.81	5.67	4.84
Reduction		*8%*			*Rev*	***4.67***	***3.99***
Reduction							
Apartments	320	1,496	1,092	***3.41***	6.65	6.39	5.86
Reduction		*73%*			*Rev*	***3.28***	***3.01***
Strip Mall	18	4135	538	***29.86***	44.32	42.04	20.43
Reduction		*13%*			*Rev*	***28.33***	***13.77***
High Turn-Over (Sit-Down) Restaurant	42	4135	3,597	***85.65***	127.15	158.37	131.84
Reduction		*87%*			*Rev*	***106.68***	***88.81***
Reduction							
Hotel	230	2813	2,203	***9.58***	8.17	8.19	5.95
Reduction		*-281*			*Rev*	***9.60***	***6.98***
Reduction		*-329*					
Office	160	1558	1,254	***7.84***	11.03	2.46	1.05
Reduction		*-47*			*Rev*	***1.75***	***0.75***
		-136					
		-121					

Table 7
Project Trip Generation Estimates – Alternative 2

Land Use	ITE Land Use Code		VMT[5] Existing	VMT[5] Project	% Reduction	Size	Daily Rate	Daily Trip	AM Peak Hour Pk-Hr Rate	AM Split In	AM Split Out	AM Trip In	AM Trip Out	AM Trip Total	PM Peak Hour Pk-Hr Rate	PM Split In	PM Split Out	PM Trip In	PM Trip Out	PM Trip Total
Proposed Land Uses																				
Single-Family Homes	210	Single Family Detached Housing[1]				49 Dwelling Units	9.440	463	0.740	25%	75%	9	27	36	0.990	63%	37%	31	18	49
Townhomes	220	Multifamily Housing (Low-Rise)[1]				25 Dwelling Units	7.320	183	0.460	23%	77%	3	9	12	0.560	63%	37%	9	5	14
Apartments	221	Multifamily Housing (Mid-Rise)[1]				320 Dwelling Units	5.440	1,741	0.360	26%	74%	30	85	115	0.440	61%	39%	86	55	141
- Residential - Retail Internal Reduction[2]					*15%*			*-358*				*-6*	*-18*	*-24*				*-19*	*-12*	*-31*
- Residential - Office Internal Reduction[3]					*3% of office use*			*-47*				*-1*	*-5*	*-6*				*-5*	*-1*	*-6*
- Location Based Reduction[4]					*13%*			*-258*				*-5*	*-13*	*-18*				*-13*	*-9*	*-22*
- VMT Reduction[5]			*10.3*	*8.94*	*13%*			*-228*				*-4*	*-11*	*-15*				*-12*	*-8*	*-20*
Residential Sub-Total								**1,496**				**26**	**74**	**100**				**77**	**48**	**125**
Office	710	General Office Building[1]				160,000 Square Feet	9.740	1,558	1.160	86%	14%	160	26	186	1.150	16%	84%	29	155	184
- Residential - Office Internal Reduction[3]					*3%*			*-47*				*-5*	*-1*	*-6*				*-1*	*-5*	*-6*
- Location Based Reduction[4]					*9%*			*-136*				*-14*	*-2*	*-16*				*-3*	*-14*	*-17*
- VMT Reduction[5]			*13.1*	*11.95*	*9%*			*-121*				*-12*	*-2*	*-14*				*-2*	*-12*	*-14*
Office Sub-Total								**1,254**				**129**	**21**	**150**				**23**	**124**	**147**
Retail	820	Shopping Center[1]				18,000 Square Feet	37.750	680	0.940	62%	38%	11	6	17	3.810	48%	52%	33	36	69
Restaurant	932	High Turn-Over (Sit-Down)[1]				42,000 Square Feet	112.180	4,712	9.940	55%	45%	229	188	417	9.770	62%	38%	254	156	410
- Residential - Retail Internal Reduction[2]					*15% of residential use*			*-358*				*-18*	*-6*	*-24*				*-12*	*-19*	*-31*
- Hotel - Retail Internal Reduction[6]					*10% of hotel use*			*-281*				*-6*	*-8*	*-14*				*-9*	*-8*	*-17*
- Location Based Reduction[4]					*13%*			*-618*				*-28*	*-23*	*-51*				*-35*	*-21*	*-56*
- Pass-by Reduction (Retail)[7]					*34%*			*-18*				*0*	*0*	*0*				*-9*	*-9*	*-18*
- Pass-by Reduction (Restaurant)[7]					*43%*			*-138*				*0*	*0*	*0*				*-88*	*-50*	*-138*
Commercial Sub-Total								**3,978**				**188**	**157**	**345**				**134**	**85**	**219**
Hotel	310	Hotel[1]				230 Occupied Rooms	12.230	2,813	0.620	58%	42%	83	60	143	0.730	49%	51%	82	86	168
- Hotel - Retail Internal Reduction[6]					*10%*			*-281*				*-8*	*-6*	*-14*				*-8*	*-9*	*-17*
- Location Based Reduction[4]					*13%*			*-329*				*-10*	*-7*	*-17*				*-10*	*-10*	*-20*
Hotel Sub-Total								**2,203**				**65**	**47**	**112**				**64**	**67**	**131**
Baseline Vehicle Trips (Before Reductions)								12,150				525	401	926				524	511	1,035
Gross Project Trips								**8,931**				**408**	**299**	**707**				**298**	**324**	**622**
Existing Land Use																				
Retail[8]						170,427 Square Feet	37.750	-6,434				-147	-73	-220				-388	-362	-750
- Pass-by Reduction[7]					*34%*			255				0	0	0				132	123	255
Total Exising Trips with Pass-by Reduction								**-6,179**				**-147**	**-73**	**-220**				**-256**	**-239**	**-495**
Net Project Trips								**2,752**				**261**	**226**	**487**				**42**	**85**	**127**

Notes:
[1] Source: ITE *Trip Generation Manual*, 10th Edition 2017, average trip generation rates.
[2] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with residential and retail components is equal to 15% off the smaller trip generator.
[3] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with residential and office components is equal to 3% off the smaller trip generator.
[4] The project site is located within an urban low-transit area based on the City of San Jose VMT Evaluation Tool (February 29, 2019). The location-based vehicle mode shares are obtained from Table 6 of the City of San Jose Transportation Analysis Handbook (April 2018). The trip reductions are based on the percent of mode share for all of the other modes of travel besides vehicle.
[5] VMT per capita for residential use and VMT per worker for office use. Existing and project VMTs were estimated using the City of San Jose VMT Evaluation Tool.
It is assumed that every percent reduction in VMT per-capita is equivalent to one percent reduction in peak-hour vehicle trips.
[6] As prescribed by the Transportation Impact Analysis Guidelines from VTA (October 2014), the maximum trip reduction for a mixed-use development project with hotel and retail components is equal to 10% off the smaller trip generator.
[7] A 34% PM pass-by reduction is applied to the retail use (LU 820 - Shopping Center) and a 43% PM pass-by reduction is applied to the restaurant use (LU 932 - High Turn-Over Restaurant), per the ITE *Trip Generation Handbook*, 3rd Edition 2017.
[8] AM and PM peak hour trips for the existing uses on site were obtained from driveway counts at the existing shopping center conducted on May 2, 2019. Daily trips were estimated based on ITE trip generation rates.
AM peak-hour driveway counts were adjusted to account for the observed cut-through of vehicles. Cut-through traffic was not observed during the PM peak hour.

Summary of Construction Traffic Emissions (EMFAC2017)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Tons						*Metric Tons*
Criteria Pollutants											
2021	0.103	1.347	0.890	0.006	0.264	0.075	0.340	0.040	0.040	0.080	567
2022	0.214	3.050	2.113	0.015	0.694	0.177	0.871	0.104	0.085	0.189	1,453
2023	0.136	2.090	1.669	0.012	0.600	0.145	0.745	0.090	0.065	0.155	1,204
Toxic Air Contaminants (0.5 Mile Trip Length)											
2021	0.055	0.205	0.272	0.000	0.012	0.003	0.015	0.002	0.002	0.004	43
2022	0.135	0.524	0.706	0.001	0.030	0.008	0.038	0.005	0.004	0.009	111
2023	0.109	0.424	0.611	0.001	0.026	0.006	0.033	0.004	0.003	0.007	93

Cambrian Park Plaza - AQ/GHG Model Alternative 1

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,225.00	Space	0.00	490,000.00	0
Other Non-Asphalt Surfaces	319.47	1000sqft	0.00	319,470.00	0
Parking Lot	98.00	Space	0.00	39,200.00	0
City Park	2.26	Acre	2.26	98,445.60	0
High Turnover (Sit Down Restaurant)	42.00	1000sqft	0.00	42,000.00	0
Hotel	230.00	Room	0.00	165,740.00	0
Apartments Mid Rise	320.00	Dwelling Unit	14.94	340,220.00	915
Condo/Townhouse	25.00	Dwelling Unit	0.00	49,350.00	72
Congregate Care (Assisted Living)	185.00	Dwelling Unit	0.00	160,000.00	529
Single Family Housing	49.00	Dwelling Unit	0.00	113,620.00	140
Strip Mall	18.00	1000sqft	0.00	18,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in San Jose. PG&E 2017 Intensity Factor used (latest published rate).

Land Use - Alternative 1 with the assisted living land use. Using plan square footages for the residential land uses and the hardscape/landscape coverage. Site Area is 18.2 acres

Construction Phase - Using total workdays from project applicant 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Trips and VMT - Post-model computation with EMFAC2017

Demolition - Demo 171,205 sf of building and haul 500,000 sf of existing pavement

Grading - Export 400,000 cubic yards of soil

Vehicle Trips - Alternative 1 Project Trip Generation Estimates. Community Open Space would not generate trips. Using project specific traffic rates

Vehicle Emission Factors - 2024 EMFAC2017 Santa Clara County Emission Factors

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves or hearths (wood or natural gas)

Energy Use - Single family homes = All-electric https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative

Water And Wastewater - 100% percent aerobic since it is assumed that water goes through wastewater treament plants

Construction Off-road Equipment Mitigation - Advanced best management practices, Tier 4 final for exhaust mitigation

Energy Mitigation - SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on

Fleet Mix - EMFAC2017

Table Name	Column Name	Default Value	New Value
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDA	0.61	0.59
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tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
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tblFleetMix	OBUS	2.1770e-003	1.5890e-003
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tblFleetMix	OBUS	2.1770e-003	1.5890e-003
tblFleetMix	OBUS	2.1770e-003	1.5890e-003
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004

tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	SBUS	6.3200e-004	9.2000e-004
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblFleetMix	UBUS	1.5140e-003	1.2480e-003
tblGrading	MaterialExported	0.00	400,000.00
tblLandUse	LandUseSquareFeet	333,960.00	165,740.00
tblLandUse	LandUseSquareFeet	320,000.00	340,220.00
tblLandUse	LandUseSquareFeet	25,000.00	49,350.00
tblLandUse	LandUseSquareFeet	185,000.00	160,000.00
tblLandUse	LandUseSquareFeet	88,200.00	113,620.00
tblLandUse	LotAcreage	11.02	0.00
tblLandUse	LotAcreage	7.33	0.00
tblLandUse	LotAcreage	0.88	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	7.67	0.00
tblLandUse	LotAcreage	8.42	14.94
tblLandUse	LotAcreage	1.56	0.00
tblLandUse	LotAcreage	11.56	0.00

tblLandUse	LotAcreage	15.91	0.00
tblLandUse	LotAcreage	0.41	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	20.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	7.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	3.30
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	5.60
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	6.10
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	8.00	0.90
tblOffRoadEquipment	UsageHours	8.00	6.70

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	5.10
tblOffRoadEquipment	UsageHours	8.00	2.90
tblOffRoadEquipment	UsageHours	8.00	0.90
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblTripsAndVMT	HaulingTripNumber	3,053.00	0.00
tblTripsAndVMT	HaulingTripNumber	50,000.00	0.00
tblTripsAndVMT	VendorTripNumber	254.00	0.00
tblTripsAndVMT	WorkerTripNumber	60.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	55.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	890.00	0.00
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00
tblVehicleEF	HHD	0.33	0.02
tblVehicleEF	HHD	0.05	0.05
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	HHD	1.57	6.33
tblVehicleEF	HHD	0.92	0.40
tblVehicleEF	HHD	3.67	5.9420e-003
tblVehicleEF	HHD	4,319.24	1,048.88
tblVehicleEF	HHD	1,548.08	1,413.90
tblVehicleEF	HHD	11.68	0.05
tblVehicleEF	HHD	13.63	5.39
tblVehicleEF	HHD	1.93	2.69
tblVehicleEF	HHD	19.37	2.32
tblVehicleEF	HHD	7.2790e-003	2.5820e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04

tblVehicleEF	HHD	6.1410e-003	0.02
tblVehicleEF	HHD	1.0800e-004	1.0000e-006
tblVehicleEF	HHD	6.9640e-003	2.4710e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8360e-003	8.8830e-003
tblVehicleEF	HHD	5.8750e-003	0.02
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.41	0.43
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.09	2.0000e-006
tblVehicleEF	HHD	0.04	9.7610e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.7700e-004	0.00
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.47	0.49
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.10	3.0000e-006
tblVehicleEF	LDA	3.0460e-003	1.7200e-003
tblVehicleEF	LDA	4.1440e-003	0.04
tblVehicleEF	LDA	0.47	0.53
tblVehicleEF	LDA	0.98	2.09
tblVehicleEF	LDA	224.31	239.45
tblVehicleEF	LDA	52.96	50.82

tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.17
tblVehicleEF	LDA	1.5950e-003	1.2960e-003
tblVehicleEF	LDA	2.2180e-003	1.6800e-003
tblVehicleEF	LDA	1.4690e-003	1.1940e-003
tblVehicleEF	LDA	2.0400e-003	1.5440e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	7.6460e-003	6.4160e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2460e-003	9.3000e-005
tblVehicleEF	LDA	5.4600e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.01	9.3280e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	6.9850e-003	3.6010e-003
tblVehicleEF	LDT1	9.7160e-003	0.06
tblVehicleEF	LDT1	0.91	0.85
tblVehicleEF	LDT1	2.05	2.27
tblVehicleEF	LDT1	281.97	286.67
tblVehicleEF	LDT1	66.03	61.55
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.11	0.21
tblVehicleEF	LDT1	2.1030e-003	1.6460e-003
tblVehicleEF	LDT1	2.8260e-003	2.1080e-003

tblVehicleEF	LDT1	1.9360e-003	1.5150e-003
tblVehicleEF	LDT1	2.5980e-003	1.9380e-003
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.8300e-003	2.6190e-003
tblVehicleEF	LDT1	6.9600e-004	0.00
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.14	0.30
tblVehicleEF	LDT2	4.5890e-003	2.9320e-003
tblVehicleEF	LDT2	5.7820e-003	0.06
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	1.32	2.70
tblVehicleEF	LDT2	319.72	308.00
tblVehicleEF	LDT2	74.64	66.71
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	1.6510e-003	1.3470e-003
tblVehicleEF	LDT2	2.3140e-003	1.7010e-003
tblVehicleEF	LDT2	1.5190e-003	1.2400e-003
tblVehicleEF	LDT2	2.1270e-003	1.5640e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12

tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.2020e-003	0.01
tblVehicleEF	LDT2	7.6800e-004	9.1000e-005
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	5.1130e-003	4.9880e-003
tblVehicleEF	LHD1	0.02	7.8580e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	0.94	0.71
tblVehicleEF	LHD1	2.42	1.05
tblVehicleEF	LHD1	8.98	8.86
tblVehicleEF	LHD1	679.88	779.34
tblVehicleEF	LHD1	31.45	11.55
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	1.00	0.65
tblVehicleEF	LHD1	0.94	0.30
tblVehicleEF	LHD1	8.5700e-004	8.4200e-004
tblVehicleEF	LHD1	0.01	9.7790e-003
tblVehicleEF	LHD1	0.01	9.6230e-003
tblVehicleEF	LHD1	9.0500e-004	2.4700e-004
tblVehicleEF	LHD1	8.2000e-004	8.0500e-004
tblVehicleEF	LHD1	2.5360e-003	2.4450e-003

tblVehicleEF	LHD1	0.01	9.1590e-003
tblVehicleEF	LHD1	8.3200e-004	2.2800e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	9.0000e-005	8.6000e-005
tblVehicleEF	LHD1	6.6680e-003	7.6080e-003
tblVehicleEF	LHD1	3.6000e-004	1.1400e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD2	3.1970e-003	3.0380e-003
tblVehicleEF	LHD2	7.0200e-003	6.6540e-003
tblVehicleEF	LHD2	5.9370e-003	7.7290e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.53	0.59
tblVehicleEF	LHD2	1.09	0.60
tblVehicleEF	LHD2	13.93	13.88
tblVehicleEF	LHD2	699.69	754.92
tblVehicleEF	LHD2	23.61	7.59
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.59	0.77

tblVehicleEF	LHD2	0.41	0.17
tblVehicleEF	LHD2	1.2120e-003	1.4370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0000e-004	1.2700e-004
tblVehicleEF	LHD2	1.1590e-003	1.3750e-003
tblVehicleEF	LHD2	2.6950e-003	2.6920e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6800e-004	1.1700e-004
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3600e-004	1.3300e-004
tblVehicleEF	LHD2	6.8030e-003	7.2890e-003
tblVehicleEF	LHD2	2.5500e-004	7.5000e-005
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	18.47	18.60
tblVehicleEF	MCY	10.21	9.06

tblVehicleEF	MCY	170.05	210.08
tblVehicleEF	MCY	44.74	60.71
tblVehicleEF	MCY	1.14	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.0290e-003	1.9970e-003
tblVehicleEF	MCY	3.5220e-003	2.9300e-003
tblVehicleEF	MCY	1.8960e-003	1.8650e-003
tblVehicleEF	MCY	3.3110e-003	2.7520e-003
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.18	2.19
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.18	1.93
tblVehicleEF	MCY	2.0670e-003	2.0790e-003
tblVehicleEF	MCY	6.7900e-004	6.0100e-004
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.71	2.72
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.38	2.10
tblVehicleEF	MDV	8.4590e-003	3.4000e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.97	0.78
tblVehicleEF	MDV	2.43	2.96
tblVehicleEF	MDV	429.38	372.42
tblVehicleEF	MDV	98.57	79.53
tblVehicleEF	MDV	0.12	0.07
tblVehicleEF	MDV	0.21	0.29

tblVehicleEF	MDV	1.7680e-003	1.4380e-003
tblVehicleEF	MDV	2.4430e-003	1.8100e-003
tblVehicleEF	MDV	1.6290e-003	1.3260e-003
tblVehicleEF	MDV	2.2460e-003	1.6640e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.18	0.34
tblVehicleEF	MDV	4.2980e-003	3.6060e-003
tblVehicleEF	MDV	1.0280e-003	7.7100e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	9.5570e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.61	0.93
tblVehicleEF	MH	5.16	2.03
tblVehicleEF	MH	1,207.03	1,501.42
tblVehicleEF	MH	58.43	18.14
tblVehicleEF	MH	1.20	1.31
tblVehicleEF	MH	0.77	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0680e-003	2.6100e-004
tblVehicleEF	MH	3.2200e-003	3.2790e-003

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.8200e-004	2.4000e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.08	0.06
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.30	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.7400e-004	1.7900e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.11	0.08
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.33	0.10
tblVehicleEF	MHD	0.02	3.5790e-003
tblVehicleEF	MHD	4.0660e-003	1.6940e-003
tblVehicleEF	MHD	0.04	9.1320e-003
tblVehicleEF	MHD	0.37	0.39
tblVehicleEF	MHD	0.33	0.23
tblVehicleEF	MHD	5.40	1.07
tblVehicleEF	MHD	133.37	72.08
tblVehicleEF	MHD	1,186.25	1,080.76
tblVehicleEF	MHD	60.77	9.15
tblVehicleEF	MHD	0.36	0.41
tblVehicleEF	MHD	1.10	1.45
tblVehicleEF	MHD	10.18	1.70
tblVehicleEF	MHD	1.0800e-004	3.6900e-004
tblVehicleEF	MHD	3.1100e-003	7.0230e-003

tblVehicleEF	MHD	8.7400e-004	1.1500e-004
tblVehicleEF	MHD	1.0300e-004	3.5300e-004
tblVehicleEF	MHD	2.9690e-003	6.7130e-003
tblVehicleEF	MHD	8.0400e-004	1.0600e-004
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.32	0.05
tblVehicleEF	MHD	1.2850e-003	6.8400e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0200e-004	9.1000e-005
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.35	0.05
tblVehicleEF	OBUS	0.01	7.0640e-003
tblVehicleEF	OBUS	5.8410e-003	3.6240e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.41	0.43
tblVehicleEF	OBUS	4.81	1.84
tblVehicleEF	OBUS	100.21	92.66
tblVehicleEF	OBUS	1,290.88	1,326.08
tblVehicleEF	OBUS	66.64	15.18

tblVehicleEF	OBUS	0.21	0.38
tblVehicleEF	OBUS	0.91	1.47
tblVehicleEF	OBUS	2.68	1.09
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004
tblVehicleEF	OBUS	2.7550e-003	7.3930e-003
tblVehicleEF	OBUS	8.3600e-004	1.4500e-004
tblVehicleEF	OBUS	1.9000e-005	1.1700e-004
tblVehicleEF	OBUS	2.6160e-003	7.0600e-003
tblVehicleEF	OBUS	7.6900e-004	1.3300e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.30	0.09
tblVehicleEF	OBUS	9.6800e-004	8.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5100e-004	1.5000e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.33	0.10
tblVehicleEF	SBUS	0.82	0.05
tblVehicleEF	SBUS	0.02	6.0180e-003
tblVehicleEF	SBUS	0.07	4.9720e-003
tblVehicleEF	SBUS	8.25	2.27

tblVehicleEF	SBUS	0.95	0.49
tblVehicleEF	SBUS	9.30	0.72
tblVehicleEF	SBUS	1,096.83	346.78
tblVehicleEF	SBUS	1,045.14	1,049.23
tblVehicleEF	SBUS	56.99	4.12
tblVehicleEF	SBUS	7.84	3.44
tblVehicleEF	SBUS	3.38	4.65
tblVehicleEF	SBUS	11.88	0.86
tblVehicleEF	SBUS	6.9900e-003	3.6120e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	6.6880e-003	3.4560e-003
tblVehicleEF	SBUS	2.6210e-003	2.7190e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	8.4800e-004	4.4000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	0.98	0.25
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.10	0.08
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.46	0.03
tblVehicleEF	SBUS	0.01	3.3010e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	7.3000e-004	4.1000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	1.42	0.36
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004

tblVehicleEF	SBUS	0.13	0.10
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.51	0.03
tblVehicleEF	UBUS	0.23	1.35
tblVehicleEF	UBUS	0.04	1.5380e-003
tblVehicleEF	UBUS	4.19	10.12
tblVehicleEF	UBUS	7.24	0.14
tblVehicleEF	UBUS	2,047.05	1,597.16
tblVehicleEF	UBUS	107.16	1.39
tblVehicleEF	UBUS	8.64	0.73
tblVehicleEF	UBUS	14.31	0.01
tblVehicleEF	UBUS	0.59	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.19	5.3280e-003
tblVehicleEF	UBUS	1.1060e-003	1.5000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.18	5.0960e-003
tblVehicleEF	UBUS	1.0170e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.45	0.02
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.55	6.4070e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.2020e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006

tblVehicleEF	UBUS	0.73	1.38
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.61	7.0150e-003
tblVehicleTrips	ST_TR	6.39	3.36
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	4.78
tblVehicleTrips	ST_TR	2.20	1.90
tblVehicleTrips	ST_TR	158.37	106.68
tblVehicleTrips	ST_TR	8.19	6.90
tblVehicleTrips	ST_TR	9.91	6.18
tblVehicleTrips	ST_TR	42.04	28.33
tblVehicleTrips	SU_TR	5.86	3.08
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.08
tblVehicleTrips	SU_TR	2.44	2.11
tblVehicleTrips	SU_TR	131.84	88.81
tblVehicleTrips	SU_TR	5.95	6.98
tblVehicleTrips	SU_TR	8.62	5.38
tblVehicleTrips	SU_TR	20.43	13.77
tblVehicleTrips	WD_TR	6.65	3.49
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	4.90
tblVehicleTrips	WD_TR	2.74	2.37
tblVehicleTrips	WD_TR	127.15	85.65
tblVehicleTrips	WD_TR	8.17	9.58
tblVehicleTrips	WD_TR	9.52	5.94
tblVehicleTrips	WD_TR	44.32	29.86
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
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	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWoodstoves	NumberCatalytic	6.40	0.00
tblWoodstoves	NumberCatalytic	0.50	0.00
tblWoodstoves	NumberCatalytic	3.70	0.00
tblWoodstoves	NumberCatalytic	1.96	0.00
tblWoodstoves	NumberNoncatalytic	6.40	0.00
tblWoodstoves	NumberNoncatalytic	0.50	0.00
tblWoodstoves	NumberNoncatalytic	3.70	0.00
tblWoodstoves	NumberNoncatalytic	1.96	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	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					
2021	0.3517	3.6167	2.2094	4.1100e-003	1.0418	0.1767	1.2184	0.4209	0.1641	0.5850	0.0000	360.2342	360.2342	0.1006	0.0000	362.7496
2022	1.9790	4.5368	4.5872	8.2400e-003	0.4504	0.2149	0.6653	0.1980	0.2019	0.4000	0.0000	719.7762	719.7762	0.1876	0.0000	724.4667
2023	4.9515	3.6964	4.3392	7.6500e-003	0.0000	0.1745	0.1745	0.0000	0.1681	0.1681	0.0000	663.2096	663.2096	0.1250	0.0000	666.3355
Maximum	**4.9515**	**4.5368**	**4.5872**	**8.2400e-003**	**1.0418**	**0.2149**	**1.2184**	**0.4209**	**0.2019**	**0.5850**	**0.0000**	**719.7762**	**719.7762**	**0.1876**	**0.0000**	**724.4667**

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					
2021	0.0558	0.5715	2.4895	4.1100e-003	0.4063	6.5100e-003	0.4128	0.0821	6.5100e-003	0.0886	0.0000	360.2338	360.2338	0.1006	0.0000	362.7492
2022	1.6085	0.7017	5.2665	8.2400e-003	0.1757	0.0129	0.1885	0.0386	0.0129	0.0515	0.0000	719.7754	719.7754	0.1876	0.0000	724.4658
2023	4.6145	0.9254	4.7191	7.6500e-003	0.0000	0.0113	0.0113	0.0000	0.0113	0.0113	0.0000	663.2088	663.2088	0.1250	0.0000	666.3347
Maximum	**4.6145**	**0.9254**	**5.2665**	**8.2400e-003**	**0.4063**	**0.0129**	**0.4128**	**0.0821**	**0.0129**	**0.0886**	**0.0000**	**719.7754**	**719.7754**	**0.1876**	**0.0000**	**724.4658**

	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	**13.78**	**81.45**	**-12.03**	**0.00**	**61.00**	**94.59**	**70.24**	**80.50**	**94.26**	**86.88**	**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	**8-15-2021**	**11-14-2021**	2.8596	0.4550
2	**11-15-2021**	**2-14-2022**	1.7261	0.2803
3	**2-15-2022**	**5-14-2022**	1.0697	0.1461
4	**5-15-2022**	**8-14-2022**	0.9861	0.1289
5	**8-15-2022**	**11-14-2022**	2.1905	0.9845
6	**11-15-2022**	**2-14-2023**	3.1200	1.8698
7	**2-15-2023**	**5-14-2023**	2.9549	1.8089
8	**5-15-2023**	**8-14-2023**	2.9285	1.8613
9	**8-15-2023**	**9-30-2023**	1.2213	0.9358
		Highest	3.1200	1.8698

2.2 Overall Operational

Unmitigated Operational

Category	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
	tons/yr										MT/yr					
Area	4.2606	0.0497	4.3151	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.8300e-003	0.0000	7.2279
Energy	0.1130	1.0127	0.7584	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,910.6123	1,910.6123	0.1309	0.0431	1,926.7416
Mobile	2.6931	3.5415	18.3162	0.0467	4.9759	0.0388	5.0147	1.3313	0.0363	1.3675	0.0000	4,581.3884	4,581.3884	0.2398	0.0000	4,587.3833
Waste						0.0000	0.0000		0.0000	0.0000	209.3080	0.0000	209.3080	12.3698	0.0000	518.5518
Water						0.0000	0.0000		0.0000	0.0000	20.3932	39.2955	59.6887	0.0756	0.0455	75.1296
Total	**7.0667**	**4.6038**	**23.3897**	**0.0531**	**4.9759**	**0.1408**	**5.1166**	**1.3313**	**0.1382**	**1.4695**	**229.7013**	**6,538.3534**	**6,768.0546**	**12.8229**	**0.0886**	**7,115.0341**

Mitigated Operational

Category	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
	tons/yr										MT/yr					
Area	4.2606	0.0497	4.3151	2.30E-04		0.0239	0.0239		0.0239	0.0239	0	7.0571	7.0571	6.83E-03	0	7.2279
Energy	0.113	1.0127	0.7584	6.16E-03		0.078	0.078		0.078	0.078	0	1,117.89	1,117.89	0.0214	0.0205	1,124.54
Mobile	2.6931	3.5415	18.3162	0.0467	4.9759	0.0388	5.0147	1.3313	0.0363	1.3675	0	4,581.39	4,581.39	0.2398	0	4,587.38
Waste						0	0		0	0	209.308	0	209.308	12.3698	0	518.5518
Water						0	0		0	0	20.3932	39.2955	59.6887	0.0756	0.0455	75.1296
Total	**7.0667**	**4.6038**	**23.3897**	**0.0531**	**4.9759**	**0.1408**	**5.1166**	**1.3313**	**0.1382**	**1.4695**	**229.7013**	**5,745.64**	**5,975.34**	**12.7134**	**0.066**	**6,312.83**

	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**	**12.12**	**11.71**	**0.85**	**25.56**	**11.27**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/15/2021	10/15/2021	5	45	
2	Site Preparation	Site Preparation	10/1/2021	1/26/2022	5	84	
3	Grading	Grading	2/1/2022	7/8/2022	5	114	
4	Trenching/Foundation	Trenching	5/1/2022	11/9/2022	5	138	
5	Building Construction	Building Construction	8/1/2022	7/28/2023	5	260	
6	Architectural Coating	Architectural Coating	10/1/2022	9/30/2023	5	260	
7	Paving	Paving	8/1/2023	11/6/2023	5	70	

Acres of Grading (Site Preparation Phase): 86.1

Acres of Grading (Grading Phase): 86.92

Acres of Paving: 0

Residential Indoor: 1,342,960; Residential Outdoor: 447,653; Non-Residential Indoor: 338,610; Non-Residential Outdoor: 112,870;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	12	3.30	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Graders	4	4.10	187	0.41
Site Preparation	Rubber Tired Dozers	4	6.70	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Concrete/Industrial Saws	3	5.00	81	0.73
Grading	Excavators	7	5.60	158	0.38
Grading	Graders	2	6.10	187	0.41

Grading	Rubber Tired Dozers	4	0.90	247	0.40
Grading	Scrapers	0	0.00	367	0.48
Grading	Tractors/Loaders/Backhoes	6	2.90	97	0.37
Trenching/Foundation	Excavators	2	4.50	158	0.38
Trenching/Foundation	Tractors/Loaders/Backhoes	6	3.20	97	0.37
Building Construction	Cranes	5	6.00	231	0.29
Building Construction	Forklifts	4	5.00	89	0.20
Building Construction	Generator Sets	2	0.20	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	5.10	97	0.37
Building Construction	Welders	3	0.90	46	0.45
Architectural Coating	Aerial Lifts	8	6.00	63	0.31
Architectural Coating	Air Compressors	20	4.00	78	0.48
Paving	Cement and Mortar Mixers	4	2.00	9	0.56
Paving	Pavers	2	1.60	130	0.42
Paving	Paving Equipment	2	1.60	132	0.36
Paving	Rollers	2	1.60	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	24	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	22	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Foundation	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	28	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	11	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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					0.3304	0.0000	0.3304	0.0500	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1745	1.6902	1.2705	2.2100e-003		0.0867	0.0867		0.0813	0.0813	0.0000	192.8385	192.8385	0.0465	0.0000	194.0004
Total	**0.1745**	**1.6902**	**1.2705**	**2.2100e-003**	**0.3304**	**0.0867**	**0.4170**	**0.0500**	**0.0813**	**0.1313**	**0.0000**	**192.8385**	**192.8385**	**0.0465**	**0.0000**	**194.0004**

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					0.1288	0.0000	0.1288	9.7500e-003	0.0000	9.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0287	0.2721	1.4009	2.2100e-003		3.4000e-003	3.4000e-003		3.4000e-003	3.4000e-003	0.0000	192.8382	192.8382	0.0465	0.0000	194.0002
Total	**0.0287**	**0.2721**	**1.4009**	**2.2100e-003**	**0.1288**	**3.4000e-003**	**0.1322**	**9.7500e-003**	**3.4000e-003**	**0.0132**	**0.0000**	**192.8382**	**192.8382**	**0.0465**	**0.0000**	**194.0002**

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 Site Preparation - 2021

Unmitigated Construction On-Site

Category	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
	tons/yr										MT/yr					
Fugitive Dust					0.7114	0.0000	0.7114	0.3709	0.0000	0.3709	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1772	1.9265	0.9389	1.9000e-003		0.0900	0.0900		0.0828	0.0828	0.0000	167.3958	167.3958	0.0541	0.0000	168.7492
Total	**0.1772**	**1.9265**	**0.9389**	**1.9000e-003**	**0.7114**	**0.0900**	**0.8014**	**0.3709**	**0.0828**	**0.4537**	**0.0000**	**167.3958**	**167.3958**	**0.0541**	**0.0000**	**168.7492**

Unmitigated Construction Off-Site

Category	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
	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

Category	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
	tons/yr										MT/yr					
Fugitive Dust					0.2774	0.0000	0.2774	0.0723	0.0000	0.0723	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0272	0.2994	1.0886	1.9000e-003		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	167.3956	167.3956	0.0541	0.0000	168.7490
Total	**0.0272**	**0.2994**	**1.0886**	**1.9000e-003**	**0.2774**	**3.1100e-003**	**0.2806**	**0.0723**	**3.1100e-003**	**0.0754**	**0.0000**	**167.3956**	**167.3956**	**0.0541**	**0.0000**	**168.7490**

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 Site Preparation - 2022

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					0.2272	0.0000	0.2272	0.1047	0.0000	0.1047	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0403	0.4375	0.2405	5.2000e-004		0.0197	0.0197		0.0182	0.0182	0.0000	45.6518	45.6518	0.0148	0.0000	46.0209
Total	**0.0403**	**0.4375**	**0.2405**	**5.2000e-004**	**0.2272**	**0.0197**	**0.2469**	**0.1047**	**0.0182**	**0.1229**	**0.0000**	**45.6518**	**45.6518**	**0.0148**	**0.0000**	**46.0209**

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					0.0886	0.0000	0.0886	0.0204	0.0000	0.0204	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4100e-003	0.0817	0.2969	5.2000e-004		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	45.6517	45.6517	0.0148	0.0000	46.0208
Total	**7.4100e-003**	**0.0817**	**0.2969**	**5.2000e-004**	**0.0886**	**8.5000e-004**	**0.0895**	**0.0204**	**8.5000e-004**	**0.0213**	**0.0000**	**45.6517**	**45.6517**	**0.0148**	**0.0000**	**46.0208**

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 Grading - 2022

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					0.2232	0.0000	0.2232	0.0933	0.0000	0.0933	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1727	1.6860	1.8198	3.2900e-003		0.0765	0.0765		0.0716	0.0716	0.0000	287.8479	287.8479	0.0777	0.0000	289.7891
Total	**0.1727**	**1.6860**	**1.8198**	**3.2900e-003**	**0.2232**	**0.0765**	**0.2996**	**0.0933**	**0.0716**	**0.1649**	**0.0000**	**287.8479**	**287.8479**	**0.0777**	**0.0000**	**289.7891**

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					0.0870	0.0000	0.0870	0.0182	0.0000	0.0182	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0398	0.2145	2.1719	3.2900e-003		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	287.8476	287.8476	0.0777	0.0000	289.7887
Total	**0.0398**	**0.2145**	**2.1719**	**3.2900e-003**	**0.0870**	**5.1800e-003**	**0.0922**	**0.0182**	**5.1800e-003**	**0.0234**	**0.0000**	**287.8476**	**287.8476**	**0.0777**	**0.0000**	**289.7887**

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 Trenching/Foundation - 2022

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	0.0430	0.4154	0.6233	9.2000e-004		0.0216	0.0216		0.0199	0.0199	0.0000	80.4663	80.4663	0.0260	0.0000	81.1169
Total	**0.0430**	**0.4154**	**0.6233**	**9.2000e-004**		**0.0216**	**0.0216**		**0.0199**	**0.0199**	**0.0000**	**80.4663**	**80.4663**	**0.0260**	**0.0000**	**81.1169**

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	0.0112	0.0486	0.6920	9.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	80.4662	80.4662	0.0260	0.0000	81.1168
Total	**0.0112**	**0.0486**	**0.6920**	**9.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**80.4662**	**80.4662**	**0.0260**	**0.0000**	**81.1168**

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 Building Construction - 2022

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	0.1217	1.2783	0.9044	1.9000e-003		0.0597	0.0597		0.0550	0.0550	0.0000	166.4016	166.4016	0.0527	0.0000	167.7186
Total	**0.1217**	**1.2783**	**0.9044**	**1.9000e-003**		**0.0597**	**0.0597**		**0.0550**	**0.0550**	**0.0000**	**166.4016**	**166.4016**	**0.0527**	**0.0000**	**167.7186**

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	0.0235	0.1171	1.0632	1.9000e-003		3.0800e-003	3.0800e-003		3.0800e-003	3.0800e-003	0.0000	166.4014	166.4014	0.0527	0.0000	167.7184
Total	**0.0235**	**0.1171**	**1.0632**	**1.9000e-003**		**3.0800e-003**	**3.0800e-003**		**3.0800e-003**	**3.0800e-003**	**0.0000**	**166.4014**	**166.4014**	**0.0527**	**0.0000**	**167.7184**

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 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	0.1546	1.5929	1.2136	2.5900e-003		0.0723	0.0723		0.0667	0.0667	0.0000	226.9671	226.9671	0.0718	0.0000	228.7619
Total	**0.1546**	**1.5929**	**1.2136**	**2.5900e-003**		**0.0723**	**0.0723**		**0.0667**	**0.0667**	**0.0000**	**226.9671**	**226.9671**	**0.0718**	**0.0000**	**228.7619**

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	0.0321	0.1597	1.4499	2.5900e-003		4.2000e-003	4.2000e-003		4.2000e-003	4.2000e-003	0.0000	226.9668	226.9668	0.0718	0.0000	228.7616
Total	**0.0321**	**0.1597**	**1.4499**	**2.5900e-003**		**4.2000e-003**	**4.2000e-003**		**4.2000e-003**	**4.2000e-003**	**0.0000**	**226.9668**	**226.9668**	**0.0718**	**0.0000**	**228.7616**

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 - 2022

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	1.5056					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.7196	0.9992	1.6200e-003		0.0374	0.0374		0.0373	0.0373	0.0000	139.4086	139.4086	0.0165	0.0000	139.8213
Total	**1.6013**	**0.7196**	**0.9992**	**1.6200e-003**		**0.0374**	**0.0374**		**0.0373**	**0.0373**	**0.0000**	**139.4086**	**139.4086**	**0.0165**	**0.0000**	**139.8213**

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					
Archit. Coating	1.5056					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.2398	1.0426	1.6200e-003		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	139.4085	139.4085	0.0165	0.0000	139.8211
Total	**1.5266**	**0.2398**	**1.0426**	**1.6200e-003**		**2.2500e-003**	**2.2500e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**139.4085**	**139.4085**	**0.0165**	**0.0000**	**139.8211**

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 - 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					

Category	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
Archit. Coating	4.5169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2694	2.0058	2.9933	4.8500e-003		0.0975	0.0975		0.0970	0.0970	0.0000	418.2258	418.2258	0.0478	0.0000	419.4201
Total	**4.7863**	**2.0058**	**2.9933**	**4.8500e-003**		**0.0975**	**0.0975**		**0.0970**	**0.0970**	**0.0000**	**418.2258**	**418.2258**	**0.0478**	**0.0000**	**419.4201**

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					
Archit. Coating	4.5169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0628	0.7195	3.1277	4.8500e-003		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003	0.0000	418.2253	418.2253	0.0478	0.0000	419.4196
Total	**4.5797**	**0.7195**	**3.1277**	**4.8500e-003**		**6.7600e-003**	**6.7600e-003**		**6.7600e-003**	**6.7600e-003**	**0.0000**	**418.2253**	**418.2253**	**0.0478**	**0.0000**	**419.4196**

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**

3.8 Paving - 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	0.0106	0.0977	0.1324	2.1000e-004		4.7400e-003	4.7400e-003		4.4000e-003	4.4000e-003	0.0000	18.0167	18.0167	5.4700e-003	0.0000	18.1535
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0977**	**0.1324**	**2.1000e-004**		**4.7400e-003**	**4.7400e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**18.0167**	**18.0167**	**5.4700e-003**	**0.0000**	**18.1535**

Unmitigated Construction Off-Site

Category	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
	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

Category	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
	tons/yr										MT/yr					
Off-Road	2.6700e-003	0.0462	0.1416	2.1000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	18.0166	18.0166	5.4700e-003	0.0000	18.1535
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6700e-003**	**0.0462**	**0.1416**	**2.1000e-004**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**18.0166**	**18.0166**	**5.4700e-003**	**0.0000**	**18.1535**

Mitigated Construction Off-Site

Category	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
	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

	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	2.6931	3.5415	18.3162	0.0467	4.9759	0.0388	5.0147	1.3313	0.0363	1.3675	0.0000	4,581.3884	4,581.3884	0.2398	0.0000	4,587.3833
Unmitigated	2.6931	3.5415	18.3162	0.0467	4.9759	0.0388	5.0147	1.3313	0.0363	1.3675	0.0000	4,581.3884	4,581.3884	0.2398	0.0000	4,587.3833

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,116.80	1,075.20	985.60	2,522,355	2,522,355
City Park	0.00	0.00	0.00		
Condo/Townhouse	122.50	119.50	102.00	275,173	275,173
Congregate Care (Assisted Living)	438.45	351.50	390.35	968,088	968,088
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	3,597.30	4,480.56	3730.02	4,342,220	4,342,220
Hotel	2,203.40	1,587.00	1605.40	3,856,697	3,856,697
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	291.06	302.82	263.62	667,061	667,061

Strip Mall	537.48	509.94	247.86	757,960	757,960
Total	8,306.99	8,426.52	7,324.85	13,389,555	13,389,555

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Congregate Care (Assisted Living)	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
City Park	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Condo/Townhouse	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Congregate Care (Assisted Living)	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Enclosed Parking with Elevator	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
High Turnover (Sit Down Restaurant)	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Hotel	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Other Non-Asphalt Surfaces	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Parking Lot	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Single Family Housing	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Strip Mall	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	792.7175	792.7175	0.1095	0.0227	802.2037
NaturalGas Mitigated	0.1130	1.0127	0.7584	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,117.8948	1,117.8948	0.0214	0.0205	1,124.5379
NaturalGas Unmitigated	0.1130	1.0127	0.7584	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,117.8948	1,117.8948	0.0214	0.0205	1,124.5379

5.2 Energy by Land Use - NaturalGas

Unmitigated

	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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Congregate Care (Assisted Living)	1.5983e+006	8.6200e-003	0.0737	0.0313	4.7000e-004		5.9500e-003	5.9500e-003		5.9500e-003	5.9500e-003	0.0000	85.2913	85.2913	1.6300e-003	1.5600e-003	85.7981

Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294
Other Non-Asphalt Surfaces	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
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
Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1130**	**1.0127**	**0.7584**	**6.1600e-003**		**0.0780**	**0.0780**		**0.0780**	**0.0780**	**0.0000**	**1,117.8948**	**1,117.8948**	**0.0214**	**0.0205**	**1,124.5379**

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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Congregate Care (Assisted Living)	1.5983e+006	8.6200e-003	0.0737	0.0313	4.7000e-004		5.9500e-003	5.9500e-003		5.9500e-003	5.9500e-003	0.0000	85.2913	85.2913	1.6300e-003	1.5600e-003	85.7981
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294
Other Non-Asphalt Surfaces	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
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

Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1130**	**1.0127**	**0.7584**	**6.1600e-003**		**0.0780**	**0.0780**		**0.0780**	**0.0780**	**0.0000**	**1,117.8948**	**1,117.8948**	**0.0214**	**0.0205**	**1,124.5379**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.32107e+006	125.8379	0.0174	3.6000e-003	127.3438
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	126136	12.0150	1.6600e-003	3.4000e-004	12.1588
Congregate Care (Assisted Living)	763745	72.7501	0.0101	2.0800e-003	73.6206
Enclosed Parking with Elevator	2.8714e+006	273.5135	0.0378	7.8100e-003	276.7865
High Turnover (Sit Down Restaurant)	1.37424e+006	130.9024	0.0181	3.7400e-003	132.4689
Hotel	1.26294e+006	120.3005	0.0166	3.4400e-003	121.7401
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	13720	1.3069	1.8000e-004	4.0000e-005	1.3225
Single Family Housing	396438	37.7625	5.2100e-003	1.0800e-003	38.2144
Strip Mall	192420	18.3289	2.5300e-003	5.2000e-004	18.5482
Total		**792.7175**	**0.1095**	**0.0227**	**802.2037**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	4.2606	0.0497	4.3151	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.8300e-003	0.0000	7.2279
Unmitigated	4.2606	0.0497	4.3151	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.8300e-003	0.0000	7.2279

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	0.6023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.1309	0.0497	4.3151	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.8300e-003	0.0000	7.2279
Total	**4.2606**	**0.0497**	**4.3151**	**2.3000e-004**		**0.0239**	**0.0239**		**0.0239**	**0.0239**	**0.0000**	**7.0571**	**7.0571**	**6.8300e-003**	**0.0000**	**7.2279**

Mitigated

	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	0.6023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.1309	0.0497	4.3151	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.8300e-003	0.0000	7.2279
Total	**4.2606**	**0.0497**	**4.3151**	**2.3000e-004**		**0.0239**	**0.0239**		**0.0239**	**0.0239**	**0.0000**	**7.0571**	**7.0571**	**6.8300e-003**	**0.0000**	**7.2279**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	59.6887	0.0756	0.0455	75.1296
Unmitigated	59.6887	0.0756	0.0455	75.1296

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009

City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Congregate Care (Assisted Living)	12.0535 / 7.59894	13.0106	0.0159	9.5200e-003	16.2459
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**59.6888**	**0.0756**	**0.0455**	**75.1297**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Congregate Care (Assisted Living)	12.0535 / 7.59894	13.0106	0.0159	9.5200e-003	16.2459
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455

Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**59.6888**	**0.0756**	**0.0455**	**75.1297**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	209.3080	12.3698	0.0000	518.5518
Unmitigated	209.3080	12.3698	0.0000	518.5518

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Congregate Care (Assisted Living)	168.81	34.2669	2.0251	0.0000	84.8948
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**209.3080**	**12.3698**	**0.0000**	**518.5518**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834

Congregate Care (Assisted Living)	168.81	34.2669	2.0251	0.0000	84.8948
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**209.3080**	**12.3698**	**0.0000**	**518.5518**

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

11.0 Vegetation

Cambrian Park Plaza - 2030 GHG Model Alternative 1

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,225.00	Space	0.00	490,000.00	0
Other Non-Asphalt Surfaces	319.47	1000sqft	0.00	319,470.00	0
Parking Lot	98.00	Space	0.00	39,200.00	0
City Park	2.26	Acre	2.26	98,445.60	0
High Turnover (Sit Down Restaurant)	42.00	1000sqft	0.00	42,000.00	0
Hotel	230.00	Room	0.00	165,740.00	0
Apartments Mid Rise	320.00	Dwelling Unit	14.94	340,220.00	915
Condo/Townhouse	25.00	Dwelling Unit	0.00	49,350.00	72
Congregate Care (Assisted Living)	185.00	Dwelling Unit	0.00	160,000.00	529
Single Family Housing	49.00	Dwelling Unit	0.00	113,620.00	140
Strip Mall	18.00	1000sqft	0.00	18,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in San Jose. PG&E 2017 Intensity Factor used (latest published rate).

Land Use - Alternative 1 with the assisted living land use. Using plan square footages for the residential land uses and the hardscape/landscape coverage. Site Area is 18.2 acres.

Construction Phase - 2030 GHG Model

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Off-road Equipment - Project Applicant Equipment List 9.8.2020

Trips and VMT - Post-model computation with EMFAC2017

Demolition - Demo 171,205 sf of building and haul 500,000 sf of existing pavement

Grading - Export 400,000 cubic yards of soil

Vehicle Trips - Alternative 1 Project Trip Generation Estimates. Community Open Space would not generate trips. Using project specific traffic rates

Vehicle Emission Factors - 2030 EMFAC2017 Santa Clara County Emission Factors

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves or hearths (wood or natural gas)

Energy Use - Single family homes = All-electric https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative

Water And Wastewater - 100% percent aerobic since it is assumed that water goes through wastewater treament plants

Construction Off-road Equipment Mitigation - Advanced best management practices, Tier 4 final for exhaust mitigation

Energy Mitigation - SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on

Fleet Mix - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	20.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	2/24/2023	1/27/2023
tblEnergyUse	NT24NG	3,155.00	0.00

tblEnergyUse	T24NG	25,910.09	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	48.00	0.00
tblFireplaces	NumberGas	3.75	0.00
tblFireplaces	NumberGas	27.75	0.00
tblFireplaces	NumberGas	12.25	0.00
tblFireplaces	NumberNoFireplace	12.80	0.00
tblFireplaces	NumberNoFireplace	1.00	0.00
tblFireplaces	NumberNoFireplace	7.40	0.00
tblFireplaces	NumberNoFireplace	3.92	0.00
tblFireplaces	NumberWood	54.40	0.00
tblFireplaces	NumberWood	4.25	0.00
tblFireplaces	NumberWood	31.45	0.00
tblFireplaces	NumberWood	21.07	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60

tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17

tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
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tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
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tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
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tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	LHD2	5.0600e-003	5.5560e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003

tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MCY	5.1220e-003	4.7800e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MH	6.5100e-004	7.2800e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01

tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
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tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	OBUS	2.2210e-003	1.4430e-003
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	SBUS	6.4600e-004	9.0000e-004
tblFleetMix	UBUS	1.4700e-003	1.1780e-003

tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblFleetMix	UBUS	1.4700e-003	1.1780e-003
tblLandUse	LandUseSquareFeet	333,960.00	165,740.00
tblLandUse	LandUseSquareFeet	320,000.00	340,220.00
tblLandUse	LandUseSquareFeet	25,000.00	49,350.00
tblLandUse	LandUseSquareFeet	185,000.00	160,000.00
tblLandUse	LandUseSquareFeet	88,200.00	113,620.00
tblLandUse	LotAcreage	11.02	0.00
tblLandUse	LotAcreage	7.33	0.00
tblLandUse	LotAcreage	0.88	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	7.67	0.00
tblLandUse	LotAcreage	8.42	14.94
tblLandUse	LotAcreage	1.56	0.00
tblLandUse	LotAcreage	11.56	0.00
tblLandUse	LotAcreage	15.91	0.00
tblLandUse	LotAcreage	0.41	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	20.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblTripsAndVMT	WorkerTripNumber	178.00	0.00
tblVehicleEF	HHD	0.27	0.02

tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.43	6.28
tblVehicleEF	HHD	0.94	0.41
tblVehicleEF	HHD	4.01	6.6850e-003
tblVehicleEF	HHD	4,037.05	930.05
tblVehicleEF	HHD	1,498.85	1,226.35
tblVehicleEF	HHD	12.27	0.05
tblVehicleEF	HHD	12.16	5.20
tblVehicleEF	HHD	1.59	2.52
tblVehicleEF	HHD	19.20	2.31
tblVehicleEF	HHD	3.6830e-003	2.1460e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.6600e-003	0.02
tblVehicleEF	HHD	1.3500e-004	1.0000e-006
tblVehicleEF	HHD	3.5230e-003	2.0530e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8550e-003	8.9050e-003
tblVehicleEF	HHD	5.4140e-003	0.02
tblVehicleEF	HHD	1.2400e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.37	0.42
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	8.6530e-003
tblVehicleEF	HHD	0.01	0.01

tblVehicleEF	HHD	1.8800e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.43	0.49
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.08	2.0000e-006
tblVehicleEF	LDA	1.8990e-003	9.5900e-004
tblVehicleEF	LDA	2.1050e-003	0.03
tblVehicleEF	LDA	0.33	0.41
tblVehicleEF	LDA	0.63	1.72
tblVehicleEF	LDA	181.37	213.89
tblVehicleEF	LDA	42.51	45.13
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.1470e-003	9.2900e-004
tblVehicleEF	LDA	1.8260e-003	1.2750e-003
tblVehicleEF	LDA	1.0560e-003	8.5500e-004
tblVehicleEF	LDA	1.6790e-003	1.1720e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	4.7560e-003	3.2470e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	1.8150e-003	9.0000e-005
tblVehicleEF	LDA	4.3500e-004	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06

tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	6.9190e-003	4.7160e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDT1	3.6800e-003	1.6710e-003
tblVehicleEF	LDT1	4.5270e-003	0.04
tblVehicleEF	LDT1	0.55	0.54
tblVehicleEF	LDT1	1.12	1.85
tblVehicleEF	LDT1	233.07	258.41
tblVehicleEF	LDT1	54.62	55.17
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	1.4520e-003	1.0700e-003
tblVehicleEF	LDT1	2.1870e-003	1.4610e-003
tblVehicleEF	LDT1	1.3350e-003	9.8400e-004
tblVehicleEF	LDT1	2.0110e-003	1.3440e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	9.1170e-003	6.5000e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.3350e-003	2.5670e-003
tblVehicleEF	LDT1	5.6500e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	9.4830e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.07	0.17

tblVehicleEF	LDT2	2.9960e-003	1.7260e-003
tblVehicleEF	LDT2	3.1970e-003	0.04
tblVehicleEF	LDT2	0.49	0.56
tblVehicleEF	LDT2	0.89	2.29
tblVehicleEF	LDT2	264.16	267.33
tblVehicleEF	LDT2	61.38	57.57
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.05	0.17
tblVehicleEF	LDT2	1.3060e-003	1.0250e-003
tblVehicleEF	LDT2	2.0190e-003	1.3400e-003
tblVehicleEF	LDT2	1.2010e-003	9.4400e-004
tblVehicleEF	LDT2	1.8570e-003	1.2320e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	7.4390e-003	6.5530e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.04	0.18
tblVehicleEF	LDT2	2.6450e-003	9.4800e-003
tblVehicleEF	LDT2	6.2800e-004	8.5000e-005
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	9.5240e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LHD1	3.9820e-003	4.1480e-003
tblVehicleEF	LHD1	8.6490e-003	5.1950e-003
tblVehicleEF	LHD1	0.01	9.0230e-003
tblVehicleEF	LHD1	0.14	0.18

tblVehicleEF	LHD1	0.61	0.47
tblVehicleEF	LHD1	1.67	0.89
tblVehicleEF	LHD1	8.93	8.25
tblVehicleEF	LHD1	641.43	698.55
tblVehicleEF	LHD1	26.94	10.09
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.53	0.30
tblVehicleEF	LHD1	0.67	0.23
tblVehicleEF	LHD1	7.8900e-004	9.1500e-004
tblVehicleEF	LHD1	0.01	9.9010e-003
tblVehicleEF	LHD1	0.01	7.0190e-003
tblVehicleEF	LHD1	6.6500e-004	2.1000e-004
tblVehicleEF	LHD1	7.5500e-004	8.7500e-004
tblVehicleEF	LHD1	2.6030e-003	2.4750e-003
tblVehicleEF	LHD1	9.7020e-003	6.6710e-003
tblVehicleEF	LHD1	6.1100e-004	1.9300e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.15	0.04
tblVehicleEF	LHD1	8.9000e-005	8.0000e-005
tblVehicleEF	LHD1	6.2670e-003	6.8120e-003
tblVehicleEF	LHD1	3.0000e-004	1.0000e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004

tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD2	2.5430e-003	2.5050e-003
tblVehicleEF	LHD2	5.3180e-003	5.3390e-003
tblVehicleEF	LHD2	3.2330e-003	4.8110e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.45	0.49
tblVehicleEF	LHD2	0.88	0.48
tblVehicleEF	LHD2	13.62	13.00
tblVehicleEF	LHD2	675.95	679.81
tblVehicleEF	LHD2	21.83	6.44
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.22	0.38
tblVehicleEF	LHD2	0.26	0.12
tblVehicleEF	LHD2	1.0460e-003	1.5020e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.3120e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0600e-004
tblVehicleEF	LHD2	1.0000e-003	1.4370e-003
tblVehicleEF	LHD2	2.7080e-003	2.7110e-003
tblVehicleEF	LHD2	8.8860e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.8000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.04	0.02

tblVehicleEF	LHD2	1.3300e-004	1.2400e-004
tblVehicleEF	LHD2	6.5670e-003	6.5570e-003
tblVehicleEF	LHD2	2.3300e-004	6.4000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.52	17.61
tblVehicleEF	MCY	10.34	9.20
tblVehicleEF	MCY	171.38	209.76
tblVehicleEF	MCY	42.85	59.23
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1570e-003	2.1380e-003
tblVehicleEF	MCY	3.3210e-003	2.8620e-003
tblVehicleEF	MCY	2.0120e-003	1.9940e-003
tblVehicleEF	MCY	3.1070e-003	2.6760e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.12	2.13
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.11	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.5900e-004	5.8600e-004

tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.66	2.67
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.30	2.04
tblVehicleEF	MDV	5.1180e-003	1.7720e-003
tblVehicleEF	MDV	7.2260e-003	0.04
tblVehicleEF	MDV	0.68	0.55
tblVehicleEF	MDV	1.51	2.32
tblVehicleEF	MDV	358.67	322.27
tblVehicleEF	MDV	82.28	67.92
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.3880e-003	1.0340e-003
tblVehicleEF	MDV	2.0820e-003	1.3440e-003
tblVehicleEF	MDV	1.2780e-003	9.5400e-004
tblVehicleEF	MDV	1.9150e-003	1.2360e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	6.8870e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	3.5870e-003	2.9760e-003
tblVehicleEF	MDV	8.4800e-004	6.2800e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	9.9830e-003

tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MH	8.2310e-003	5.0270e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.45	0.31
tblVehicleEF	MH	3.72	1.64
tblVehicleEF	MH	1,184.19	1,350.27
tblVehicleEF	MH	56.79	15.54
tblVehicleEF	MH	0.84	1.06
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.8300e-004	2.1200e-004
tblVehicleEF	MH	3.2210e-003	3.2970e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.1200e-004	1.9500e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3200e-004	1.5400e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.24	0.08

tblVehicleEF	MHD	0.02	3.8320e-003
tblVehicleEF	MHD	2.7470e-003	1.0340e-003
tblVehicleEF	MHD	0.03	8.3830e-003
tblVehicleEF	MHD	0.37	0.41
tblVehicleEF	MHD	0.25	0.15
tblVehicleEF	MHD	3.74	0.87
tblVehicleEF	MHD	131.96	65.10
tblVehicleEF	MHD	1,167.79	993.45
tblVehicleEF	MHD	59.45	8.55
tblVehicleEF	MHD	0.34	0.34
tblVehicleEF	MHD	1.04	1.43
tblVehicleEF	MHD	9.99	1.69
tblVehicleEF	MHD	5.2000e-005	1.6200e-004
tblVehicleEF	MHD	3.0080e-003	7.0060e-003
tblVehicleEF	MHD	8.2100e-004	1.1200e-004
tblVehicleEF	MHD	5.0000e-005	1.5500e-004
tblVehicleEF	MHD	2.8710e-003	6.6960e-003
tblVehicleEF	MHD	7.5400e-004	1.0300e-004
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.23	0.04
tblVehicleEF	MHD	1.2710e-003	6.1800e-004
tblVehicleEF	MHD	0.01	9.4800e-003
tblVehicleEF	MHD	6.6000e-004	8.5000e-005
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01

tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.25	0.05
tblVehicleEF	OBUS	0.01	7.0980e-003
tblVehicleEF	OBUS	4.0840e-003	2.1970e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.30	0.26
tblVehicleEF	OBUS	4.08	1.58
tblVehicleEF	OBUS	110.55	97.36
tblVehicleEF	OBUS	1,272.30	1,210.85
tblVehicleEF	OBUS	64.94	13.46
tblVehicleEF	OBUS	0.24	0.43
tblVehicleEF	OBUS	0.85	1.45
tblVehicleEF	OBUS	2.74	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4200e-004
tblVehicleEF	OBUS	2.8340e-003	7.8820e-003
tblVehicleEF	OBUS	9.3800e-004	1.5600e-004
tblVehicleEF	OBUS	2.1000e-005	1.3600e-004
tblVehicleEF	OBUS	2.6900e-003	7.5260e-003
tblVehicleEF	OBUS	8.6200e-004	1.4400e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08

tblVehicleEF	OBUS	1.0660e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2100e-004	1.3300e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.28	0.08
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	7.6490e-003	4.4040e-003
tblVehicleEF	SBUS	0.06	6.3380e-003
tblVehicleEF	SBUS	8.87	2.93
tblVehicleEF	SBUS	0.48	0.37
tblVehicleEF	SBUS	7.57	0.86
tblVehicleEF	SBUS	1,023.58	337.48
tblVehicleEF	SBUS	1,008.60	970.50
tblVehicleEF	SBUS	61.81	5.06
tblVehicleEF	SBUS	4.35	2.71
tblVehicleEF	SBUS	1.72	3.09
tblVehicleEF	SBUS	10.76	1.18
tblVehicleEF	SBUS	2.1870e-003	2.0480e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.4940e-003	0.02
tblVehicleEF	SBUS	1.1020e-003	6.8000e-005
tblVehicleEF	SBUS	2.0920e-003	1.9600e-003
tblVehicleEF	SBUS	2.5880e-003	2.6690e-003
tblVehicleEF	SBUS	8.1060e-003	0.02
tblVehicleEF	SBUS	1.0130e-003	6.2000e-005

tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.05	0.32
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.01	3.2190e-003
tblVehicleEF	SBUS	9.7440e-003	9.2880e-003
tblVehicleEF	SBUS	7.4900e-004	5.0000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.53	0.46
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.43	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.1860e-003
tblVehicleEF	UBUS	3.04	14.11
tblVehicleEF	UBUS	7.59	0.14
tblVehicleEF	UBUS	1,937.16	1,668.67
tblVehicleEF	UBUS	126.43	1.40
tblVehicleEF	UBUS	4.75	0.71
tblVehicleEF	UBUS	13.02	0.02
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.10	5.1160e-003
tblVehicleEF	UBUS	1.3960e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03

tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.10	4.8930e-003
tblVehicleEF	UBUS	1.2840e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.65	9.2610e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.4020e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.48	1.90
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.71	0.01
tblVehicleTrips	ST_TR	6.39	3.36
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	4.78
tblVehicleTrips	ST_TR	2.20	1.90
tblVehicleTrips	ST_TR	158.37	106.68
tblVehicleTrips	ST_TR	8.19	6.90
tblVehicleTrips	ST_TR	9.91	6.18
tblVehicleTrips	ST_TR	42.04	28.33
tblVehicleTrips	SU_TR	5.86	3.08
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.08
tblVehicleTrips	SU_TR	2.44	2.11
tblVehicleTrips	SU_TR	131.84	88.81

tblVehicleTrips	SU_TR	5.95	6.98
tblVehicleTrips	SU_TR	8.62	5.38
tblVehicleTrips	SU_TR	20.43	13.77
tblVehicleTrips	WD_TR	6.65	3.49
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	4.90
tblVehicleTrips	WD_TR	2.74	2.37
tblVehicleTrips	WD_TR	127.15	85.65
tblVehicleTrips	WD_TR	8.17	9.58
tblVehicleTrips	WD_TR	9.52	5.94
tblVehicleTrips	WD_TR	44.32	29.86
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
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	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	6.40	0.00
tblWoodstoves	NumberCatalytic	0.50	0.00
tblWoodstoves	NumberCatalytic	3.70	0.00
tblWoodstoves	NumberCatalytic	1.96	0.00
tblWoodstoves	NumberNoncatalytic	6.40	0.00
tblWoodstoves	NumberNoncatalytic	0.50	0.00
tblWoodstoves	NumberNoncatalytic	3.70	0.00
tblWoodstoves	NumberNoncatalytic	1.96	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

Category	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
	tons/yr										MT/yr					
Area	4.2596	0.0496	4.3055	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.7800e-003	0.0000	7.2266
Energy	0.1130	1.0127	0.7584	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,910.6123	1,910.6123	0.1309	0.0431	1,926.7416
Mobile	2.0103	2.9388	14.7483	0.0417	4.9769	0.0313	5.0082	1.3316	0.0293	1.3609	0.0000	4,073.1914	4,073.1914	0.1805	0.0000	4,077.7046
Waste						0.0000	0.0000		0.0000	0.0000	209.3080	0.0000	209.3080	12.3698	0.0000	518.5518
Water						0.0000	0.0000		0.0000	0.0000	20.3932	39.2955	59.6887	0.0756	0.0455	75.1296
Total	**6.3829**	**4.0011**	**19.8122**	**0.0481**	**4.9769**	**0.1333**	**5.1102**	**1.3316**	**0.1313**	**1.4629**	**229.7013**	**6,030.1563**	**6,259.8576**	**12.7636**	**0.0886**	**6,605.3542**

Mitigated Operational

Category	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
	tons/yr										MT/yr					
Area	4.2596	0.0496	4.3055	2.30E-04		0.0239	0.0239		0.0239	0.0239	0	7.0571	7.0571	6.78E-03	0	7.2266
Energy	0.113	1.0127	0.7584	6.16E-03		0.078	0.078		0.078	0.078	0	1,117.89	1,117.89	0.0214	0.0205	1,124.54
Mobile	2.0103	2.9388	14.7483	0.0417	4.9769	0.0313	5.0082	1.3316	0.0293	1.3609	0	4,073.19	4,073.19	0.1805	0	4,077.70
Waste						0	0		0	0	209.308	0	209.308	12.3698	0	518.5518
Water						0	0		0	0	20.3932	39.2955	59.6887	0.0756	0.0455	75.1296
Total	**6.3829**	**4.0011**	**19.8122**	**0.0481**	**4.9769**	**0.1333**	**5.1102**	**1.3316**	**0.1313**	**1.4629**	**229.7013**	**5,237.44**	**5,467.14**	**12.6541**	**0.066**	**5,803.15**

	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	13.15	12.66	0.86	25.56	12.14

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/28/2023	1/27/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,342,960; Residential Outdoor: 447,653; Non-Residential Indoor: 338,610; Non-Residential Outdoor: 112,870;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Aerial Lifts	8	6.00	63	0.31
Architectural Coating	Air Compressors	20	4.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	28	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Architectural Coating - 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					
Archit. Coating	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
Off-Road	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**

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					
Archit. Coating	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
Off-Road	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 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

	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	2.0103	2.9388	14.7483	0.0417	4.9769	0.0313	5.0082	1.3316	0.0293	1.3609	0.0000	4,073.1914	4,073.1914	0.1805	0.0000	4,077.7046
Unmitigated	2.0103	2.9388	14.7483	0.0417	4.9769	0.0313	5.0082	1.3316	0.0293	1.3609	0.0000	4,073.1914	4,073.1914	0.1805	0.0000	4,077.7046

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,116.80	1,075.20	985.60	2,522,355	2,522,355
City Park	0.00	0.00	0.00		
Condo/Townhouse	122.50	119.50	102.00	275,173	275,173
Congregate Care (Assisted Living)	438.45	351.50	390.35	968,088	968,088
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	3,597.30	4,480.56	3730.02	4,342,220	4,342,220
Hotel	2,203.40	1,587.00	1605.40	3,856,697	3,856,697
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	291.06	302.82	263.62	667,061	667,061
Strip Mall	537.48	509.94	247.86	757,960	757,960
Total	8,306.99	8,426.52	7,324.85	13,389,555	13,389,555

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Congregate Care (Assisted Living)	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Condo/Townhouse	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Congregate Care (Assisted Living)	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Enclosed Parking with Elevator	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
High Turnover (Sit Down Restaurant)	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Hotel	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Other Non-Asphalt Surfaces	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Parking Lot	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Single Family Housing	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Strip Mall	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
City Park	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	792.7175	792.7175	0.1095	0.0227	802.2037
NaturalGas Mitigated	0.1130	1.0127	0.7584	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,117.8948	1,117.8948	0.0214	0.0205	1,124.5379
NaturalGas Unmitigated	0.1130	1.0127	0.7584	6.1600e-003		0.0780	0.0780		0.0780	0.0780	0.0000	1,117.8948	1,117.8948	0.0214	0.0205	1,124.5379

5.2 Energy by Land Use - NaturalGas

Unmitigated

	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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Congregate Care (Assisted Living)	1.5983e+006	8.6200e-003	0.0737	0.0313	4.7000e-004		5.9500e-003	5.9500e-003		5.9500e-003	5.9500e-003	0.0000	85.2913	85.2913	1.6300e-003	1.5600e-003	85.7981
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294
Other Non-Asphalt Surfaces	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
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
Single Family Housing	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

Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1130**	**1.0127**	**0.7584**	**6.1600e-003**		**0.0780**	**0.0780**		**0.0780**	**0.0780**	**0.0000**	**1,117.8948**	**1,117.8948**	**0.0214**	**0.0205**	**1,124.5379**

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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Congregate Care (Assisted Living)	1.5983e+006	8.6200e-003	0.0737	0.0313	4.7000e-004		5.9500e-003	5.9500e-003		5.9500e-003	5.9500e-003	0.0000	85.2913	85.2913	1.6300e-003	1.5600e-003	85.7981
Enclosed Parking with Elevator	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
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294
Other Non-Asphalt Surfaces	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
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
Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1130**	**1.0127**	**0.7584**	**6.1600e-003**		**0.0780**	**0.0780**		**0.0780**	**0.0780**	**0.0000**	**1,117.8948**	**1,117.8948**	**0.0214**	**0.0205**	**1,124.5379**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.32107e+006	125.8379	0.0174	3.6000e-003	127.3438
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	126136	12.0150	1.6600e-003	3.4000e-004	12.1588
Congregate Care (Assisted Living)	763745	72.7501	0.0101	2.0800e-003	73.6206
Enclosed Parking with Elevator	2.8714e+006	273.5135	0.0378	7.8100e-003	276.7865
High Turnover (Sit Down Restaurant)	1.37424e+006	130.9024	0.0181	3.7400e-003	132.4689
Hotel	1.26294e+006	120.3005	0.0166	3.4400e-003	121.7401
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	13720	1.3069	1.8000e-004	4.0000e-005	1.3225
Single Family Housing	396438	37.7625	5.2100e-003	1.0800e-003	38.2144
Strip Mall	192420	18.3289	2.5300e-003	5.2000e-004	18.5482
Total		**792.7175**	**0.1095**	**0.0227**	**802.2037**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000

City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	4.2596	0.0496	4.3055	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.7800e-003	0.0000	7.2266
Unmitigated	4.2596	0.0496	4.3055	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.7800e-003	0.0000	7.2266

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	0.6023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.1299	0.0496	4.3055	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.7800e-003	0.0000	7.2266
Total	**4.2596**	**0.0496**	**4.3055**	**2.3000e-004**		**0.0239**	**0.0239**		**0.0239**	**0.0239**	**0.0000**	**7.0571**	**7.0571**	**6.7800e-003**	**0.0000**	**7.2266**

Mitigated

	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	0.6023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.1299	0.0496	4.3055	2.3000e-004		0.0239	0.0239		0.0239	0.0239	0.0000	7.0571	7.0571	6.7800e-003	0.0000	7.2266
Total	**4.2596**	**0.0496**	**4.3055**	**2.3000e-004**		**0.0239**	**0.0239**		**0.0239**	**0.0239**	**0.0000**	**7.0571**	**7.0571**	**6.7800e-003**	**0.0000**	**7.2266**

7.0 Water Detail

7.1 Mitigation Measures Water

Category	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.6887	0.0756	0.0455	75.1296
Unmitigated	59.6887	0.0756	0.0455	75.1296

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Congregate Care (Assisted Living)	12.0535 / 7.59894	13.0106	0.0159	9.5200e-003	16.2459
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414

Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**59.6888**	**0.0756**	**0.0455**	**75.1297**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Congregate Care (Assisted Living)	12.0535 / 7.59894	13.0106	0.0159	9.5200e-003	16.2459
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892

Total		59.6888	0.0756	0.0455	75.1297

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	209.3080	12.3698	0.0000	518.5518
Unmitigated	209.3080	12.3698	0.0000	518.5518

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Congregate Care (Assisted Living)	168.81	34.2669	2.0251	0.0000	84.8948

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**209.3080**	**12.3698**	**0.0000**	**518.5518**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Congregate Care (Assisted Living)	168.81	34.2669	2.0251	0.0000	84.8948
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**209.3080**	**12.3698**	**0.0000**	**518.5518**

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

11.0 Vegetation

Cambrian Park Plaza - AQ/GHG Model Alternative 2

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	160.00	1000sqft	0.00	160,000.00	0
Enclosed Parking with Elevator	1,225.00	Space	0.00	490,000.00	0
Other Non-Asphalt Surfaces	319.47	1000sqft	0.00	319,470.00	0
Parking Lot	98.00	Space	0.00	39,200.00	0
City Park	2.26	Acre	2.26	98,445.60	0
High Turnover (Sit Down Restaurant)	42.00	1000sqft	0.00	42,000.00	0
Hotel	230.00	Room	0.00	165,740.00	0
Apartments Mid Rise	320.00	Dwelling Unit	14.94	340,220.00	915
Condo/Townhouse	25.00	Dwelling Unit	0.00	49,350.00	72
Single Family Housing	49.00	Dwelling Unit	0.00	113,620.00	140
Strip Mall	18.00	1000sqft	0.00	18,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in San Jose. PG&E 2017 Intensity Factor used (latest published rate).

Land Use - Alternative 2 with the general office land use. Using plan square footages for the residential land uses and the hardscape/landscape coverage. Site Area is 17.2 acres

Construction Phase - Using total workdays from project applicant 9.8.2020

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Trips and VMT - Post-model computation with EMFAC2017

Demolition - Demo 171,205 sf of building and haul 500,000 sf of existing pavement

Grading - Export 400,000 cubic yards of soil

Architectural Coating -

Vehicle Trips - Alternative 2 Project Trip Generation Estimates. Community Open Space would not generate trips

Vehicle Emission Factors - 2024 EMFAC2017 Santa Clara County Emission Factors

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves or hearths (wood or natural gas)

Area Coating -

Energy Use - Single family homes = All-electric https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative

Water And Wastewater - 100% percent aerobic since it is assumed that water goes through wastewater treament plants

Construction Off-road Equipment Mitigation - Advanced best management practices, Tier 4 inteirm for exhaust mitigation

Energy Mitigation - SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on

Fleet Mix - EMFAC2017

Table Name	Column Name	Default Value	New Value

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tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.1410e-003	0.02
tblVehicleEF	HHD	1.0800e-004	1.0000e-006
tblVehicleEF	HHD	6.9640e-003	2.4710e-003

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8360e-003	8.8830e-003
tblVehicleEF	HHD	5.8750e-003	0.02
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.41	0.43
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.09	2.0000e-006
tblVehicleEF	HHD	0.04	9.7610e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.7700e-004	0.00
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.47	0.49
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.10	3.0000e-006
tblVehicleEF	LDA	3.0460e-003	1.7200e-003
tblVehicleEF	LDA	4.1440e-003	0.04
tblVehicleEF	LDA	0.47	0.53
tblVehicleEF	LDA	0.98	2.09
tblVehicleEF	LDA	224.31	239.45
tblVehicleEF	LDA	52.96	50.82
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.17
tblVehicleEF	LDA	1.5950e-003	1.2960e-003

tblVehicleEF	LDA	2.2180e-003	1.6800e-003
tblVehicleEF	LDA	1.4690e-003	1.1940e-003
tblVehicleEF	LDA	2.0400e-003	1.5440e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	7.6460e-003	6.4160e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2460e-003	9.3000e-005
tblVehicleEF	LDA	5.4600e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.01	9.3280e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	6.9850e-003	3.6010e-003
tblVehicleEF	LDT1	9.7160e-003	0.06
tblVehicleEF	LDT1	0.91	0.85
tblVehicleEF	LDT1	2.05	2.27
tblVehicleEF	LDT1	281.97	286.67
tblVehicleEF	LDT1	66.03	61.55
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.11	0.21
tblVehicleEF	LDT1	2.1030e-003	1.6460e-003
tblVehicleEF	LDT1	2.8260e-003	2.1080e-003
tblVehicleEF	LDT1	1.9360e-003	1.5150e-003
tblVehicleEF	LDT1	2.5980e-003	1.9380e-003
tblVehicleEF	LDT1	0.07	0.07

tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.8300e-003	2.6190e-003
tblVehicleEF	LDT1	6.9600e-004	0.00
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.14	0.30
tblVehicleEF	LDT2	4.5890e-003	2.9320e-003
tblVehicleEF	LDT2	5.7820e-003	0.06
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	1.32	2.70
tblVehicleEF	LDT2	319.72	308.00
tblVehicleEF	LDT2	74.64	66.71
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	1.6510e-003	1.3470e-003
tblVehicleEF	LDT2	2.3140e-003	1.7010e-003
tblVehicleEF	LDT2	1.5190e-003	1.2400e-003
tblVehicleEF	LDT2	2.1270e-003	1.5640e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.41

tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.2020e-003	0.01
tblVehicleEF	LDT2	7.6800e-004	9.1000e-005
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	5.1130e-003	4.9880e-003
tblVehicleEF	LHD1	0.02	7.8580e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	0.94	0.71
tblVehicleEF	LHD1	2.42	1.05
tblVehicleEF	LHD1	8.98	8.86
tblVehicleEF	LHD1	679.88	779.34
tblVehicleEF	LHD1	31.45	11.55
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	1.00	0.65
tblVehicleEF	LHD1	0.94	0.30
tblVehicleEF	LHD1	8.5700e-004	8.4200e-004
tblVehicleEF	LHD1	0.01	9.7790e-003
tblVehicleEF	LHD1	0.01	9.6230e-003
tblVehicleEF	LHD1	9.0500e-004	2.4700e-004
tblVehicleEF	LHD1	8.2000e-004	8.0500e-004
tblVehicleEF	LHD1	2.5360e-003	2.4450e-003
tblVehicleEF	LHD1	0.01	9.1590e-003
tblVehicleEF	LHD1	8.3200e-004	2.2800e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003

tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	9.0000e-005	8.6000e-005
tblVehicleEF	LHD1	6.6680e-003	7.6080e-003
tblVehicleEF	LHD1	3.6000e-004	1.1400e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD2	3.1970e-003	3.0380e-003
tblVehicleEF	LHD2	7.0200e-003	6.6540e-003
tblVehicleEF	LHD2	5.9370e-003	7.7290e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.53	0.59
tblVehicleEF	LHD2	1.09	0.60
tblVehicleEF	LHD2	13.93	13.88
tblVehicleEF	LHD2	699.69	754.92
tblVehicleEF	LHD2	23.61	7.59
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.59	0.77
tblVehicleEF	LHD2	0.41	0.17
tblVehicleEF	LHD2	1.2120e-003	1.4370e-003
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0000e-004	1.2700e-004
tblVehicleEF	LHD2	1.1590e-003	1.3750e-003
tblVehicleEF	LHD2	2.6950e-003	2.6920e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6800e-004	1.1700e-004
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3600e-004	1.3300e-004
tblVehicleEF	LHD2	6.8030e-003	7.2890e-003
tblVehicleEF	LHD2	2.5500e-004	7.5000e-005
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	18.47	18.60
tblVehicleEF	MCY	10.21	9.06
tblVehicleEF	MCY	170.05	210.08
tblVehicleEF	MCY	44.74	60.71
tblVehicleEF	MCY	1.14	1.15

tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.0290e-003	1.9970e-003
tblVehicleEF	MCY	3.5220e-003	2.9300e-003
tblVehicleEF	MCY	1.8960e-003	1.8650e-003
tblVehicleEF	MCY	3.3110e-003	2.7520e-003
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.18	2.19
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.18	1.93
tblVehicleEF	MCY	2.0670e-003	2.0790e-003
tblVehicleEF	MCY	6.7900e-004	6.0100e-004
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.71	2.72
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.38	2.10
tblVehicleEF	MDV	8.4590e-003	3.4000e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.97	0.78
tblVehicleEF	MDV	2.43	2.96
tblVehicleEF	MDV	429.38	372.42
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tblVehicleEF	MDV	0.12	0.07
tblVehicleEF	MDV	0.21	0.29
tblVehicleEF	MDV	1.7680e-003	1.4380e-003
tblVehicleEF	MDV	2.4430e-003	1.8100e-003
tblVehicleEF	MDV	1.6290e-003	1.3260e-003

tblVehicleEF	MDV	2.2460e-003	1.6640e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.18	0.34
tblVehicleEF	MDV	4.2980e-003	3.6060e-003
tblVehicleEF	MDV	1.0280e-003	7.7100e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	9.5570e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.61	0.93
tblVehicleEF	MH	5.16	2.03
tblVehicleEF	MH	1,207.03	1,501.42
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tblVehicleEF	MH	0.77	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0680e-003	2.6100e-004
tblVehicleEF	MH	3.2200e-003	3.2790e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.8200e-004	2.4000e-004
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tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.08	0.06
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.30	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.7400e-004	1.7900e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.11	0.08
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.33	0.10
tblVehicleEF	MHD	0.02	3.5790e-003
tblVehicleEF	MHD	4.0660e-003	1.6940e-003
tblVehicleEF	MHD	0.04	9.1320e-003
tblVehicleEF	MHD	0.37	0.39
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tblVehicleEF	MHD	1.0800e-004	3.6900e-004
tblVehicleEF	MHD	3.1100e-003	7.0230e-003
tblVehicleEF	MHD	8.7400e-004	1.1500e-004
tblVehicleEF	MHD	1.0300e-004	3.5300e-004
tblVehicleEF	MHD	2.9690e-003	6.7130e-003

tblVehicleEF	MHD	8.0400e-004	1.0600e-004
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.10
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tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0200e-004	9.1000e-005
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
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tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
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tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.35	0.05
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tblVehicleEF	OBUS	5.8410e-003	3.6240e-003
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tblVehicleEF	OBUS	0.24	0.58
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tblVehicleEF	OBUS	0.91	1.47
tblVehicleEF	OBUS	2.68	1.09

tblVehicleEF	OBUS	1.9000e-005	1.2200e-004
tblVehicleEF	OBUS	2.7550e-003	7.3930e-003
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tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	6.6880e-003	3.4560e-003
tblVehicleEF	SBUS	2.6210e-003	2.7190e-003
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tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
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tblVehicleEF	SBUS	0.98	0.25
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
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tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	7.3000e-004	4.1000e-005
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tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.51	0.03

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tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.19	5.3280e-003
tblVehicleEF	UBUS	1.1060e-003	1.5000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.18	5.0960e-003
tblVehicleEF	UBUS	1.0170e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.45	0.02
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.55	6.4070e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.2020e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.73	1.38
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.61	7.0150e-003

tblVehicleTrips	ST_TR	6.39	3.36
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	4.78
tblVehicleTrips	ST_TR	2.46	1.75
tblVehicleTrips	ST_TR	158.37	106.68
tblVehicleTrips	ST_TR	8.19	6.90
tblVehicleTrips	ST_TR	9.91	6.18
tblVehicleTrips	ST_TR	42.04	28.33
tblVehicleTrips	SU_TR	5.86	3.08
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.08
tblVehicleTrips	SU_TR	1.05	0.75
tblVehicleTrips	SU_TR	131.84	88.81
tblVehicleTrips	SU_TR	5.95	6.98
tblVehicleTrips	SU_TR	8.62	5.38
tblVehicleTrips	SU_TR	20.43	13.77
tblVehicleTrips	WD_TR	6.65	3.49
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	4.90
tblVehicleTrips	WD_TR	11.03	7.84
tblVehicleTrips	WD_TR	127.15	85.65
tblVehicleTrips	WD_TR	8.17	9.58
tblVehicleTrips	WD_TR	9.52	5.94
tblVehicleTrips	WD_TR	44.32	29.86
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
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	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	6.40	0.00
tblWoodstoves	NumberCatalytic	0.50	0.00
tblWoodstoves	NumberCatalytic	1.96	0.00

tblWoodstoves	NumberNoncatalytic	6.40	0.00
tblWoodstoves	NumberNoncatalytic	0.50	0.00
tblWoodstoves	NumberNoncatalytic	1.96	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	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					
2021	0.3517	3.6167	2.2094	4.11E-03	1.0418	0.1767	1.2184	0.4209	0.1641	0.585	0	360.2342	360.2342	0.1006	0	362.7496
2022	1.906	4.5368	4.5872	8.24E-03	0.4504	0.2149	0.6653	0.198	0.2019	0.4	0	719.7762	719.7762	0.1876	0	724.4667
2023	4.7325	3.6964	4.3392	7.65E-03	0	0.1745	0.1745	0	0.1681	0.1681	0	663.2096	663.2096	0.125	0	666.3355
Maximum	**4.7325**	**4.5368**	**4.5872**	**8.24E-03**	**1.0418**	**0.2149**	**1.2184**	**0.4209**	**0.2019**	**0.585**	**0**	**719.7762**	**719.7762**	**0.1876**	**0**	**724.4667**

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					
2021	0.0715	1.3677	2.5261	4.11E-03	0.4063	6.51E-03	0.4128	0.0821	6.51E-03	0.0886	0	360.2338	360.2338	0.1006	0	362.7492

2022	1.5769	3.0909	5.421	8.24E-03	0.1757	0.0207	0.1963	0.0386	0.0207	0.0593	0	719.7754	719.7754	0.1876	0	724.4658
2023	4.4438	2.8766	4.852	7.65E-03	0	0.0333	0.0333	0	0.0333	0.0333	0	663.2088	663.2088	0.125	0	666.3347
Maximum	**4.4438**	**3.0909**	**5.421**	**8.24E-03**	**0.4063**	**0.0333**	**0.4128**	**0.0821**	**0.0333**	**0.0886**	**0**	**719.7754**	**719.7754**	**0.1876**	**0**	**724.4658**

	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	**12.85**	**38.10**	**-14.94**	**0.00**	**61.00**	**89.31**	**68.79**	**80.50**	**88.67**	**84.29**	**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	**8-15-2021**	**11-14-2021**	2.8596	1.1061
2	**11-15-2021**	**2-14-2022**	1.7261	0.6075
3	**2-15-2022**	**5-14-2022**	1.0697	0.7570
4	**5-15-2022**	**8-14-2022**	0.9861	0.7088
5	**8-15-2022**	**11-14-2022**	2.1544	1.6300
6	**11-15-2022**	**2-14-2023**	3.0462	2.5305
7	**2-15-2023**	**5-14-2023**	2.8835	2.4480
8	**5-15-2023**	**8-14-2023**	2.8547	2.4688
9	**8-15-2023**	**9-30-2023**	1.1836	1.1293
		Highest	3.0462	2.5305

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	4.1903	0.0339	2.9435	1.60E-04		0.0163	0.0163		0.0163	0.0163	0	4.8162	4.8162	4.68E-03	0	4.9333
Energy	0.1185	1.0674	0.8349	6.46E-03		0.0819	0.0819		0.0819	0.0819	0	2,164.08	2,164.08	0.1594	0.0498	2,182.92

Mobile	2.8798	3.8449	19.8519	0.0512	5.4626	0.0425	5.505	1.4615	0.0397	1.5011	0	5,021.81	5,021.81	0.2584	0	5,028.27
Waste						0	0		0	0	205.2462	0	205.2462	12.1297	0	508.4888
Water						0	0		0	0	26.1899	51.0175	77.2074	0.0972	0.0584	97.0439
Total	**7.1885**	**4.9462**	**23.6303**	**0.0578**	**5.4626**	**0.1406**	**5.6032**	**1.4615**	**0.1378**	**1.5993**	**231.4361**	**7,241.72**	**7,473.16**	**12.6494**	**0.1082**	**7,821.65**

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	4.1903	0.0339	2.9435	1.60E-04		0.0163	0.0163		0.0163	0.0163	0	4.8162	4.8162	4.68E-03	0	4.9333
Energy	0.1185	1.0674	0.8349	6.46E-03		0.0819	0.0819		0.0819	0.0819	0	1,172.37	1,172.37	0.0225	0.0215	1,179.34
Mobile	2.8798	3.8449	19.8519	0.0512	5.4626	0.0425	5.505	1.4615	0.0397	1.5011	0	5,021.81	5,021.81	0.2584	0	5,028.27
Waste						0	0		0	0	205.2462	0	205.2462	12.1297	0	508.4888
Water						0	0		0	0	26.1899	51.0175	77.2074	0.0972	0.0584	97.0439
Total	**7.1885**	**4.9462**	**23.6303**	**0.0578**	**5.4626**	**0.1406**	**5.6032**	**1.4615**	**0.1378**	**1.5993**	**231.4361**	**6,250.01**	**6,481.45**	**12.5124**	**0.0799**	**6,818.07**

	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**	**13.69**	**13.27**	**1.08**	**26.18**	**12.83**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Demolition	Demolition	8/15/2021	10/15/2021	5	45	
2	Site Preparation	Site Preparation	10/1/2021	1/26/2022	5	84	
3	Grading	Grading	2/1/2022	7/8/2022	5	114	
4	Trenching/Foundation	Trenching	5/1/2022	11/9/2022	5	138	
5	Building Construction	Building Construction	8/1/2022	7/28/2023	5	260	
6	Architectural Coating	Architectural Coating	10/1/2022	9/30/2023	5	260	
7	Paving	Paving	8/1/2023	11/6/2023	5	70	

Acres of Grading (Site Preparation Phase): 86.1

Acres of Grading (Grading Phase): 86.92

Acres of Paving: 0

Residential Indoor: 1,018,960; Residential Outdoor: 339,653; Non-Residential Indoor: 578,610; Non-Residential Outdoor: 192,870;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	12	3.30	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Rubber Tired Dozers	4	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Graders	4	4.10	187	0.41
Site Preparation	Rubber Tired Dozers	4	6.70	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Concrete/Industrial Saws	3	5.00	81	0.73
Grading	Excavators	7	5.60	158	0.38
Grading	Graders	2	6.10	187	0.41
Grading	Rubber Tired Dozers	4	0.90	247	0.40
Grading	Scrapers	0	0.00	367	0.48
Grading	Tractors/Loaders/Backhoes	6	2.90	97	0.37
Trenching/Foundation	Excavators	2	4.50	158	0.38
Trenching/Foundation	Tractors/Loaders/Backhoes	6	3.20	97	0.37

Building Construction	Cranes	5	6.00	231	0.29
Building Construction	Forklifts	4	5.00	89	0.20
Building Construction	Generator Sets	2	0.20	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	5.10	97	0.37
Building Construction	Welders	3	0.90	46	0.45
Architectural Coating	Aerial Lifts	8	6.00	63	0.31
Architectural Coating	Air Compressors	20	4.00	78	0.48
Paving	Cement and Mortar Mixers	4	2.00	9	0.56
Paving	Pavers	2	1.60	130	0.42
Paving	Paving Equipment	2	1.60	132	0.36
Paving	Rollers	2	1.60	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	24	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	22	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Foundation	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	28	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	11	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

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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					0.3304	0.0000	0.3304	0.0500	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1745	1.6902	1.2705	2.2100e-003		0.0867	0.0867		0.0813	0.0813	0.0000	192.8385	192.8385	0.0465	0.0000	194.0004
Total	**0.1745**	**1.6902**	**1.2705**	**2.2100e-003**	**0.3304**	**0.0867**	**0.4170**	**0.0500**	**0.0813**	**0.1313**	**0.0000**	**192.8385**	**192.8385**	**0.0465**	**0.0000**	**194.0004**

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					0.1288	0.0000	0.1288	9.7500e-003	0.0000	9.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0373	0.7777	1.4009	2.2100e-003		3.4000e-003	3.4000e-003		3.4000e-003	3.4000e-003	0.0000	192.8382	192.8382	0.0465	0.0000	194.0002
Total	**0.0373**	**0.7777**	**1.4009**	**2.2100e-003**	**0.1288**	**3.4000e-003**	**0.1322**	**9.7500e-003**	**3.4000e-003**	**0.0132**	**0.0000**	**192.8382**	**192.8382**	**0.0465**	**0.0000**	**194.0002**

<u>Mitigated Construction Off-Site</u>

	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 Site Preparation - 2021

<u>Unmitigated Construction On-Site</u>

	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					0.7114	0.0000	0.7114	0.3709	0.0000	0.3709	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	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
Off-Road	0.1772	1.9265	0.9389	1.9000e-003		0.0900	0.0900		0.0828	0.0828	0.0000	167.3958	167.3958	0.0541	0.0000	168.7492
Total	**0.1772**	**1.9265**	**0.9389**	**1.9000e-003**	**0.7114**	**0.0900**	**0.8014**	**0.3709**	**0.0828**	**0.4537**	**0.0000**	**167.3958**	**167.3958**	**0.0541**	**0.0000**	**168.7492**

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					0.2774	0.0000	0.2774	0.0723	0.0000	0.0723	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.5900	1.1251	1.9000e-003		3.1100e-003	3.1100e-003		3.1100e-003	3.1100e-003	0.0000	167.3956	167.3956	0.0541	0.0000	168.7490
Total	**0.0342**	**0.5900**	**1.1251**	**1.9000e-003**	**0.2774**	**3.1100e-003**	**0.2806**	**0.0723**	**3.1100e-003**	**0.0754**	**0.0000**	**167.3956**	**167.3956**	**0.0541**	**0.0000**	**168.7490**

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 Site Preparation - 2022

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					0.2272	0.0000	0.2272	0.1047	0.0000	0.1047	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0403	0.4375	0.2405	5.2000e-004		0.0197	0.0197		0.0182	0.0182	0.0000	45.6518	45.6518	0.0148	0.0000	46.0209
Total	**0.0403**	**0.4375**	**0.2405**	**5.2000e-004**	**0.2272**	**0.0197**	**0.2469**	**0.1047**	**0.0182**	**0.1229**	**0.0000**	**45.6518**	**45.6518**	**0.0148**	**0.0000**	**46.0209**

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					0.0886	0.0000	0.0886	0.0204	0.0000	0.0204	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3300e-003	0.1609	0.3069	5.2000e-004		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	45.6517	45.6517	0.0148	0.0000	46.0208
Total	**9.3300e-003**	**0.1609**	**0.3069**	**5.2000e-004**	**0.0886**	**8.5000e-004**	**0.0895**	**0.0204**	**8.5000e-004**	**0.0213**	**0.0000**	**45.6517**	**45.6517**	**0.0148**	**0.0000**	**46.0208**

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 Grading - 2022

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					0.2232	0.0000	0.2232	0.0933	0.0000	0.0933	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1727	1.6860	1.8198	3.2900e-003		0.0765	0.0765		0.0716	0.0716	0.0000	287.8479	287.8479	0.0777	0.0000	289.7891
Total	**0.1727**	**1.6860**	**1.8198**	**3.2900e-003**	**0.2232**	**0.0765**	**0.2996**	**0.0933**	**0.0716**	**0.1649**	**0.0000**	**287.8479**	**287.8479**	**0.0777**	**0.0000**	**289.7891**

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					0.0870	0.0000	0.0870	0.0182	0.0000	0.0182	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0516	1.2516	2.2189	3.2900e-003		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	287.8476	287.8476	0.0777	0.0000	289.7887
Total	**0.0516**	**1.2516**	**2.2189**	**3.2900e-003**	**0.0870**	**5.1800e-003**	**0.0922**	**0.0182**	**5.1800e-003**	**0.0234**	**0.0000**	**287.8476**	**287.8476**	**0.0777**	**0.0000**	**289.7887**

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 Trenching/Foundation - 2022

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	0.0430	0.4154	0.6233	9.2000e-004		0.0216	0.0216		0.0199	0.0199	0.0000	80.4663	80.4663	0.0260	0.0000	81.1169
Total	**0.0430**	**0.4154**	**0.6233**	**9.2000e-004**		**0.0216**	**0.0216**		**0.0199**	**0.0199**	**0.0000**	**80.4663**	**80.4663**	**0.0260**	**0.0000**	**81.1169**

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	0.0165	0.4011	0.6920	9.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	80.4662	80.4662	0.0260	0.0000	81.1168
Total	**0.0165**	**0.4011**	**0.6920**	**9.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**80.4662**	**80.4662**	**0.0260**	**0.0000**	**81.1168**

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 Building Construction - 2022

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	0.1217	1.2783	0.9044	1.9000e-003		0.0597	0.0597		0.0550	0.0550	0.0000	166.4016	166.4016	0.0527	0.0000	167.7186
Total	**0.1217**	**1.2783**	**0.9044**	**1.9000e-003**		**0.0597**	**0.0597**		**0.0550**	**0.0550**	**0.0000**	**166.4016**	**166.4016**	**0.0527**	**0.0000**	**167.7186**

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	0.0352	0.6340	1.1607	1.9000e-003		3.9000e-003	3.9000e-003		3.9000e-003	3.9000e-003	0.0000	166.4014	166.4014	0.0527	0.0000	167.7184
Total	**0.0352**	**0.6340**	**1.1607**	**1.9000e-003**		**3.9000e-003**	**3.9000e-003**		**3.9000e-003**	**3.9000e-003**	**0.0000**	**166.4014**	**166.4014**	**0.0527**	**0.0000**	**167.7184**

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 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	0.1546	1.5929	1.2136	2.5900e-003		0.0723	0.0723		0.0667	0.0667	0.0000	226.9671	226.9671	0.0718	0.0000	228.7619
Total	**0.1546**	**1.5929**	**1.2136**	**2.5900e-003**		**0.0723**	**0.0723**		**0.0667**	**0.0667**	**0.0000**	**226.9671**	**226.9671**	**0.0718**	**0.0000**	**228.7619**

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	0.0479	0.8645	1.5828	2.5900e-003		5.3100e-003	5.3100e-003		5.3100e-003	5.3100e-003	0.0000	226.9668	226.9668	0.0718	0.0000	228.7616
Total	**0.0479**	**0.8645**	**1.5828**	**2.5900e-003**		**5.3100e-003**	**5.3100e-003**		**5.3100e-003**	**5.3100e-003**	**0.0000**	**226.9668**	**226.9668**	**0.0718**	**0.0000**	**228.7616**

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 - 2022

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	1.4326					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0957	0.7196	0.9992	1.6200e-003		0.0374	0.0374		0.0373	0.0373	0.0000	139.4086	139.4086	0.0165	0.0000	139.8213
Total	**1.5283**	**0.7196**	**0.9992**	**1.6200e-003**		**0.0374**	**0.0374**		**0.0373**	**0.0373**	**0.0000**	**139.4086**	**139.4086**	**0.0165**	**0.0000**	**139.8213**

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					

Archit. Coating	1.4326					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.6433	1.0426	1.6200e-003		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	139.4085	139.4085	0.0165	0.0000	139.8211
Total	**1.4643**	**0.6433**	**1.0426**	**1.6200e-003**		**9.2400e-003**	**9.2400e-003**		**9.2400e-003**	**9.2400e-003**	**0.0000**	**139.4085**	**139.4085**	**0.0165**	**0.0000**	**139.8211**

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 - 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					
Archit. Coating	4.2979					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2694	2.0058	2.9933	4.8500e-003		0.0975	0.0975		0.0970	0.0970	0.0000	418.2258	418.2258	0.0478	0.0000	419.4201
Total	**4.5673**	**2.0058**	**2.9933**	**4.8500e-003**		**0.0975**	**0.0975**		**0.0970**	**0.0970**	**0.0000**	**418.2258**	**418.2258**	**0.0478**	**0.0000**	**419.4201**

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					
Archit. Coating	4.2979					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0950	1.9299	3.1277	4.8500e-003		0.0277	0.0277		0.0277	0.0277	0.0000	418.2253	418.2253	0.0478	0.0000	419.4196
Total	**4.3929**	**1.9299**	**3.1277**	**4.8500e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**418.2253**	**418.2253**	**0.0478**	**0.0000**	**419.4196**

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**

3.8 Paving - 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	0.0106	0.0977	0.1324	2.1000e-004		4.7400e-003	4.7400e-003		4.4000e-003	4.4000e-003	0.0000	18.0167	18.0167	5.4700e-003	0.0000	18.1535
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0977**	**0.1324**	**2.1000e-004**		**4.7400e-003**	**4.7400e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**18.0167**	**18.0167**	**5.4700e-003**	**0.0000**	**18.1535**

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

	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
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	2.9500e-003	0.0821	0.1416	2.1000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	18.0166	18.0166	5.4700e-003	0.0000	18.1535
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9500e-003**	**0.0821**	**0.1416**	**2.1000e-004**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**18.0166**	**18.0166**	**5.4700e-003**	**0.0000**	**18.1535**

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

	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	2.8798	3.8449	19.8519	0.0512	5.4626	0.0425	5.5050	1.4615	0.0397	1.5011	0.0000	5,021.8070	5,021.8070	0.2584	0.0000	5,028.2666
Unmitigated	2.8798	3.8449	19.8519	0.0512	5.4626	0.0425	5.5050	1.4615	0.0397	1.5011	0.0000	5,021.8070	5,021.8070	0.2584	0.0000	5,028.2666

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,116.80	1,075.20	985.60	2,522,355	2,522,355
City Park	0.00	0.00	0.00		
Condo/Townhouse	122.50	119.50	102.00	275,173	275,173
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,254.40	280.00	120.00	2,277,776	2,277,776
High Turnover (Sit Down Restaurant)	3,597.30	4,480.56	3730.02	4,342,220	4,342,220
Hotel	2,203.40	1,587.00	1605.40	3,856,697	3,856,697
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	291.06	302.82	263.62	667,061	667,061
Strip Mall	537.48	509.94	247.86	757,960	757,960
Total	9,122.94	8,355.02	7,054.50	14,699,242	14,699,242

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
City Park	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Condo/Townhouse	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Enclosed Parking with Elevator	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
General Office Building	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
High Turnover (Sit Down Restaurant)	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Hotel	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Other Non-Asphalt Surfaces	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Parking Lot	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Single Family Housing	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Strip Mall	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Category	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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	991.7092	991.7092	0.1370	0.0283	1,003.5767
NaturalGas Mitigated	0.1185	1.0674	0.8349	6.4600e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,172.3740	1,172.3740	0.0225	0.0215	1,179.3408
NaturalGas Unmitigated	0.1185	1.0674	0.8349	6.4600e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,172.3740	1,172.3740	0.0225	0.0215	1,179.3408

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	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
	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Enclosed Parking with Elevator	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
General Office Building	2.6192e+006	0.0141	0.1284	0.1079	7.7000e-004		9.7600e-003	9.7600e-003		9.7600e-003	9.7600e-003	0.0000	139.7705	139.7705	2.6800e-003	2.5600e-003	140.6011
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294

Other Non-Asphalt Surfaces	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
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
Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1185**	**1.0674**	**0.8349**	**6.4600e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,172.3740**	**1,172.3740**	**0.0225**	**0.0215**	**1,179.3408**

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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Enclosed Parking with Elevator	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
General Office Building	2.6192e+006	0.0141	0.1284	0.1079	7.7000e-004		9.7600e-003	9.7600e-003		9.7600e-003	9.7600e-003	0.0000	139.7705	139.7705	2.6800e-003	2.5600e-003	140.6011
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294
Other Non-Asphalt Surfaces	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
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
Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900

Total		**0.1185**	**1.0674**	**0.8349**	**6.4600e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,172.3740**	**1,172.3740**	**0.0225**	**0.0215**	**1,179.3408**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.32107e+006	125.8379	0.0174	3.6000e-003	127.3438
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	126136	12.0150	1.6600e-003	3.4000e-004	12.1588
Enclosed Parking with Elevator	2.8714e+006	273.5135	0.0378	7.8100e-003	276.7865
General Office Building	2.8528e+006	271.7418	0.0375	7.7600e-003	274.9936
High Turnover (Sit Down Restaurant)	1.37424e+006	130.9024	0.0181	3.7400e-003	132.4689
Hotel	1.26294e+006	120.3005	0.0166	3.4400e-003	121.7401
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	13720	1.3069	1.8000e-004	4.0000e-005	1.3225
Single Family Housing	396438	37.7625	5.2100e-003	1.0800e-003	38.2144
Strip Mall	192420	18.3289	2.5300e-003	5.2000e-004	18.5482
Total		**991.7092**	**0.1370**	**0.0283**	**1,003.5767**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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					

	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
Mitigated	4.1903	0.0339	2.9435	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6800e-003	0.0000	4.9333
Unmitigated	4.1903	0.0339	2.9435	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6800e-003	0.0000	4.9333

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	0.5731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0897	0.0339	2.9435	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6800e-003	0.0000	4.9333
Total	**4.1903**	**0.0339**	**2.9435**	**1.6000e-004**		**0.0163**	**0.0163**		**0.0163**	**0.0163**	**0.0000**	**4.8162**	**4.8162**	**4.6800e-003**	**0.0000**	**4.9333**

Mitigated

	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	0.5731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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

Landscaping	0.0897	0.0339	2.9435	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6800e-003	0.0000	4.9333
Total	**4.1903**	**0.0339**	**2.9435**	**1.6000e-004**		**0.0163**	**0.0163**		**0.0163**	**0.0163**	**0.0000**	**4.8162**	**4.8162**	**4.6800e-003**	**0.0000**	**4.9333**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	77.2074	0.0972	0.0584	97.0439
Unmitigated	77.2074	0.0972	0.0584	97.0439

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

General Office Building	28.4374 / 17.4294	30.5292	0.0375	0.0225	38.1601
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**77.2074**	**0.0972**	**0.0584**	**97.0439**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	28.4374 / 17.4294	30.5292	0.0375	0.0225	38.1601
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**77.2074**	**0.0972**	**0.0584**	**97.0439**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	205.2462	12.1297	0.0000	508.4888
Unmitigated	205.2462	12.1297	0.0000	508.4888

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956

Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	148.8	30.2051	1.7851	0.0000	74.8318
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**205.2462**	**12.1297**	**0.0000**	**508.4888**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	148.8	30.2051	1.7851	0.0000	74.8318
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**205.2462**	**12.1297**	**0.0000**	**508.4888**

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

11.0 Vegetation

Cambrian Park Plaza - 2030 GHG Model Alternative 2
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	160.00	1000sqft	0.00	160,000.00	0
Enclosed Parking with Elevator	1,225.00	Space	0.00	490,000.00	0
Other Non-Asphalt Surfaces	319.47	1000sqft	0.00	319,470.00	0
Parking Lot	98.00	Space	0.00	39,200.00	0
City Park	2.26	Acre	2.26	98,445.60	0
High Turnover (Sit Down Restaurant)	42.00	1000sqft	0.00	42,000.00	0
Hotel	230.00	Room	0.00	165,740.00	0
Apartments Mid Rise	320.00	Dwelling Unit	14.94	340,220.00	915
Condo/Townhouse	25.00	Dwelling Unit	0.00	49,350.00	72
Single Family Housing	49.00	Dwelling Unit	0.00	113,620.00	140
Strip Mall	18.00	1000sqft	0.00	18,000.00	0

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 2.2

Precipitation Freq (Days) 58

Climate Zone 4

Operational Year 2030

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 210

CH4 Intensity (lb/MWhr) 0.029

N2O Intensity (lb/MWhr) 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in San Jose. PG&E 2017 Intensity Factor used (latest published rate).

Land Use - Alternative 2 with the general office land use. Using plan square footages for the residential land uses and the hardscape/landscape coverage. Site Area is 17.2 acres

Construction Phase - GHG Model Only

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Trips and VMT - Post-model computation with EMFAC2017

Demolition - Demo 171,205 sf of building and haul 500,000 sf of existing pavement

Grading - Export 400,000 cubic yards of soil

Architectural Coating -

Vehicle Trips - Alternative 2 Project Trip Generation Estimates. Community Open Space would not generate trips

Vehicle Emission Factors - 2030 EMFAC2017 Santa Clara County Emission Factors

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves or hearths (wood or natural gas)

Area Coating -

Energy Use - Single family homes = All-electric https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative

Water And Wastewater - 100% percent aerobic since it is assumed that water goes through wastewater treament plants

Construction Off-road Equipment Mitigation - Advanced best management practices, Tier 4 inteirm for exhaust mitigation

Energy Mitigation - SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on

Fleet Mix - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	26.00
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
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	25,910.09	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	48.00	0.00
tblFireplaces	NumberGas	3.75	0.00
tblFireplaces	NumberGas	12.25	0.00
tblFireplaces	NumberNoFireplace	12.80	0.00
tblFireplaces	NumberNoFireplace	1.00	0.00
tblFireplaces	NumberNoFireplace	3.92	0.00
tblFireplaces	NumberWood	54.40	0.00
tblFireplaces	NumberWood	4.25	0.00
tblFireplaces	NumberWood	21.07	0.00
tblFleetMix	HHD	0.02	0.02
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tblFleetMix	HHD	0.02	0.02

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tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17

tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
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tblFleetMix	LHD1	0.01	0.02
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tblFleetMix	LHD1	0.01	0.02
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tblFleetMix	MCY	5.1220e-003	4.7803e-003

tblFleetMix	MCY	5.1220e-003	4.7803e-003
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tblFleetMix	MCY	5.1220e-003	4.7803e-003
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tblFleetMix	MCY	5.1220e-003	4.7803e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004

tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004

tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblLandUse	LandUseSquareFeet	333,960.00	165,740.00
tblLandUse	LandUseSquareFeet	320,000.00	340,220.00
tblLandUse	LandUseSquareFeet	25,000.00	49,350.00
tblLandUse	LandUseSquareFeet	88,200.00	113,620.00
tblLandUse	LotAcreage	3.67	0.00
tblLandUse	LotAcreage	11.02	0.00
tblLandUse	LotAcreage	7.33	0.00
tblLandUse	LotAcreage	0.88	0.00
tblLandUse	LotAcreage	0.96	0.00
tblLandUse	LotAcreage	7.67	0.00
tblLandUse	LotAcreage	8.42	14.94
tblLandUse	LotAcreage	1.56	0.00
tblLandUse	LotAcreage	15.91	0.00
tblLandUse	LotAcreage	0.41	0.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	8.00	1.60

tblOffRoadEquipment	UsageHours	8.00	1.60
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblTripsAndVMT	WorkerTripNumber	28.00	0.00
tblVehicleEF	HHD	0.27	0.02
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.43	6.28
tblVehicleEF	HHD	0.94	0.41
tblVehicleEF	HHD	4.01	6.6850e-003
tblVehicleEF	HHD	4,037.05	930.05
tblVehicleEF	HHD	1,498.85	1,226.35
tblVehicleEF	HHD	12.27	0.05
tblVehicleEF	HHD	12.16	5.20
tblVehicleEF	HHD	1.59	2.52
tblVehicleEF	HHD	19.20	2.31
tblVehicleEF	HHD	3.6830e-003	2.1460e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.6600e-003	0.02
tblVehicleEF	HHD	1.3500e-004	1.0000e-006
tblVehicleEF	HHD	3.5230e-003	2.0530e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8550e-003	8.9050e-003
tblVehicleEF	HHD	5.4140e-003	0.02
tblVehicleEF	HHD	1.2400e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.37	0.42
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02

tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	8.6530e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.8800e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.43	0.49
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.08	2.0000e-006
tblVehicleEF	LDA	1.8990e-003	9.5900e-004
tblVehicleEF	LDA	2.1050e-003	0.03
tblVehicleEF	LDA	0.33	0.41
tblVehicleEF	LDA	0.63	1.72
tblVehicleEF	LDA	181.37	213.89
tblVehicleEF	LDA	42.51	45.13
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.1470e-003	9.2900e-004
tblVehicleEF	LDA	1.8260e-003	1.2750e-003
tblVehicleEF	LDA	1.0560e-003	8.5500e-004
tblVehicleEF	LDA	1.6790e-003	1.1720e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	4.7560e-003	3.2470e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.12

tblVehicleEF	LDA	1.8150e-003	9.0000e-005
tblVehicleEF	LDA	4.3500e-004	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	6.9190e-003	4.7160e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDT1	3.6800e-003	1.6710e-003
tblVehicleEF	LDT1	4.5270e-003	0.04
tblVehicleEF	LDT1	0.55	0.54
tblVehicleEF	LDT1	1.12	1.85
tblVehicleEF	LDT1	233.07	258.41
tblVehicleEF	LDT1	54.62	55.17
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	1.4520e-003	1.0700e-003
tblVehicleEF	LDT1	2.1870e-003	1.4610e-003
tblVehicleEF	LDT1	1.3350e-003	9.8400e-004
tblVehicleEF	LDT1	2.0110e-003	1.3440e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	9.1170e-003	6.5000e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.3350e-003	2.5670e-003
tblVehicleEF	LDT1	5.6500e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09

tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	9.4830e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.07	0.17
tblVehicleEF	LDT2	2.9960e-003	1.7260e-003
tblVehicleEF	LDT2	3.1970e-003	0.04
tblVehicleEF	LDT2	0.49	0.56
tblVehicleEF	LDT2	0.89	2.29
tblVehicleEF	LDT2	264.16	267.33
tblVehicleEF	LDT2	61.38	57.57
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.05	0.17
tblVehicleEF	LDT2	1.3060e-003	1.0250e-003
tblVehicleEF	LDT2	2.0190e-003	1.3400e-003
tblVehicleEF	LDT2	1.2010e-003	9.4400e-004
tblVehicleEF	LDT2	1.8570e-003	1.2320e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	7.4390e-003	6.5530e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.04	0.18
tblVehicleEF	LDT2	2.6450e-003	9.4800e-003
tblVehicleEF	LDT2	6.2800e-004	8.5000e-005
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	9.5240e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.05	0.20

tblVehicleEF	LHD1	3.9820e-003	4.1480e-003
tblVehicleEF	LHD1	8.6490e-003	5.1950e-003
tblVehicleEF	LHD1	0.01	9.0230e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.61	0.47
tblVehicleEF	LHD1	1.67	0.89
tblVehicleEF	LHD1	8.93	8.25
tblVehicleEF	LHD1	641.43	698.55
tblVehicleEF	LHD1	26.94	10.09
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.53	0.30
tblVehicleEF	LHD1	0.67	0.23
tblVehicleEF	LHD1	7.8900e-004	9.1500e-004
tblVehicleEF	LHD1	0.01	9.9010e-003
tblVehicleEF	LHD1	0.01	7.0190e-003
tblVehicleEF	LHD1	6.6500e-004	2.1000e-004
tblVehicleEF	LHD1	7.5500e-004	8.7500e-004
tblVehicleEF	LHD1	2.6030e-003	2.4750e-003
tblVehicleEF	LHD1	9.7020e-003	6.6710e-003
tblVehicleEF	LHD1	6.1100e-004	1.9300e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.15	0.04
tblVehicleEF	LHD1	8.9000e-005	8.0000e-005
tblVehicleEF	LHD1	6.2670e-003	6.8120e-003
tblVehicleEF	LHD1	3.0000e-004	1.0000e-004

tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD2	2.5430e-003	2.5050e-003
tblVehicleEF	LHD2	5.3180e-003	5.3390e-003
tblVehicleEF	LHD2	3.2330e-003	4.8110e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.45	0.49
tblVehicleEF	LHD2	0.88	0.48
tblVehicleEF	LHD2	13.62	13.00
tblVehicleEF	LHD2	675.95	679.81
tblVehicleEF	LHD2	21.83	6.44
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.22	0.38
tblVehicleEF	LHD2	0.26	0.12
tblVehicleEF	LHD2	1.0460e-003	1.5020e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.3120e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0600e-004
tblVehicleEF	LHD2	1.0000e-003	1.4370e-003
tblVehicleEF	LHD2	2.7080e-003	2.7110e-003
tblVehicleEF	LHD2	8.8860e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.8000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2400e-004
tblVehicleEF	LHD2	6.5670e-003	6.5570e-003
tblVehicleEF	LHD2	2.3300e-004	6.4000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.52	17.61
tblVehicleEF	MCY	10.34	9.20
tblVehicleEF	MCY	171.38	209.76
tblVehicleEF	MCY	42.85	59.23
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1570e-003	2.1380e-003
tblVehicleEF	MCY	3.3210e-003	2.8620e-003
tblVehicleEF	MCY	2.0120e-003	1.9940e-003
tblVehicleEF	MCY	3.1070e-003	2.6760e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.12	2.13

tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.11	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.5900e-004	5.8600e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.66	2.67
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.30	2.04
tblVehicleEF	MDV	5.1180e-003	1.7720e-003
tblVehicleEF	MDV	7.2260e-003	0.04
tblVehicleEF	MDV	0.68	0.55
tblVehicleEF	MDV	1.51	2.32
tblVehicleEF	MDV	358.67	322.27
tblVehicleEF	MDV	82.28	67.92
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.3880e-003	1.0340e-003
tblVehicleEF	MDV	2.0820e-003	1.3440e-003
tblVehicleEF	MDV	1.2780e-003	9.5400e-004
tblVehicleEF	MDV	1.9150e-003	1.2360e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	6.8870e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	3.5870e-003	2.9760e-003
tblVehicleEF	MDV	8.4800e-004	6.2800e-004

tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	9.9830e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MH	8.2310e-003	5.0270e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.45	0.31
tblVehicleEF	MH	3.72	1.64
tblVehicleEF	MH	1,184.19	1,350.27
tblVehicleEF	MH	56.79	15.54
tblVehicleEF	MH	0.84	1.06
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.8300e-004	2.1200e-004
tblVehicleEF	MH	3.2210e-003	3.2970e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.1200e-004	1.9500e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3200e-004	1.5400e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03

tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.24	0.08
tblVehicleEF	MHD	0.02	3.8320e-003
tblVehicleEF	MHD	2.7470e-003	1.0340e-003
tblVehicleEF	MHD	0.03	8.3830e-003
tblVehicleEF	MHD	0.37	0.41
tblVehicleEF	MHD	0.25	0.15
tblVehicleEF	MHD	3.74	0.87
tblVehicleEF	MHD	131.96	65.10
tblVehicleEF	MHD	1,167.79	993.45
tblVehicleEF	MHD	59.45	8.55
tblVehicleEF	MHD	0.34	0.34
tblVehicleEF	MHD	1.04	1.43
tblVehicleEF	MHD	9.99	1.69
tblVehicleEF	MHD	5.2000e-005	1.6200e-004
tblVehicleEF	MHD	3.0080e-003	7.0060e-003
tblVehicleEF	MHD	8.2100e-004	1.1200e-004
tblVehicleEF	MHD	5.0000e-005	1.5500e-004
tblVehicleEF	MHD	2.8710e-003	6.6960e-003
tblVehicleEF	MHD	7.5400e-004	1.0300e-004
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.23	0.04
tblVehicleEF	MHD	1.2710e-003	6.1800e-004

tblVehicleEF	MHD	0.01	9.4800e-003
tblVehicleEF	MHD	6.6000e-004	8.5000e-005
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.25	0.05
tblVehicleEF	OBUS	0.01	7.0980e-003
tblVehicleEF	OBUS	4.0840e-003	2.1970e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.30	0.26
tblVehicleEF	OBUS	4.08	1.58
tblVehicleEF	OBUS	110.55	97.36
tblVehicleEF	OBUS	1,272.30	1,210.85
tblVehicleEF	OBUS	64.94	13.46
tblVehicleEF	OBUS	0.24	0.43
tblVehicleEF	OBUS	0.85	1.45
tblVehicleEF	OBUS	2.74	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4200e-004
tblVehicleEF	OBUS	2.8340e-003	7.8820e-003
tblVehicleEF	OBUS	9.3800e-004	1.5600e-004
tblVehicleEF	OBUS	2.1000e-005	1.3600e-004
tblVehicleEF	OBUS	2.6900e-003	7.5260e-003
tblVehicleEF	OBUS	8.6200e-004	1.4400e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05

tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0660e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2100e-004	1.3300e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.28	0.08
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	7.6490e-003	4.4040e-003
tblVehicleEF	SBUS	0.06	6.3380e-003
tblVehicleEF	SBUS	8.87	2.93
tblVehicleEF	SBUS	0.48	0.37
tblVehicleEF	SBUS	7.57	0.86
tblVehicleEF	SBUS	1,023.58	337.48
tblVehicleEF	SBUS	1,008.60	970.50
tblVehicleEF	SBUS	61.81	5.06
tblVehicleEF	SBUS	4.35	2.71
tblVehicleEF	SBUS	1.72	3.09
tblVehicleEF	SBUS	10.76	1.18
tblVehicleEF	SBUS	2.1870e-003	2.0480e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.4940e-003	0.02
tblVehicleEF	SBUS	1.1020e-003	6.8000e-005

tblVehicleEF	SBUS	2.0920e-003	1.9600e-003
tblVehicleEF	SBUS	2.5880e-003	2.6690e-003
tblVehicleEF	SBUS	8.1060e-003	0.02
tblVehicleEF	SBUS	1.0130e-003	6.2000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.05	0.32
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.01	3.2190e-003
tblVehicleEF	SBUS	9.7440e-003	9.2880e-003
tblVehicleEF	SBUS	7.4900e-004	5.0000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.53	0.46
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.08	0.07
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.43	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.1860e-003
tblVehicleEF	UBUS	3.04	14.11
tblVehicleEF	UBUS	7.59	0.14
tblVehicleEF	UBUS	1,937.16	1,668.67
tblVehicleEF	UBUS	126.43	1.40
tblVehicleEF	UBUS	4.75	0.71
tblVehicleEF	UBUS	13.02	0.02
tblVehicleEF	UBUS	0.54	0.07

tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.10	5.1160e-003
tblVehicleEF	UBUS	1.3960e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.10	4.8930e-003
tblVehicleEF	UBUS	1.2840e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.65	9.2610e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.4020e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.48	1.90
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.71	0.01
tblVehicleTrips	ST_TR	6.39	3.36
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	4.78
tblVehicleTrips	ST_TR	2.46	1.75
tblVehicleTrips	ST_TR	158.37	106.68
tblVehicleTrips	ST_TR	8.19	6.90
tblVehicleTrips	ST_TR	9.91	6.18
tblVehicleTrips	ST_TR	42.04	28.33
tblVehicleTrips	SU_TR	5.86	3.08

tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	4.08
tblVehicleTrips	SU_TR	1.05	0.75
tblVehicleTrips	SU_TR	131.84	88.81
tblVehicleTrips	SU_TR	5.95	6.98
tblVehicleTrips	SU_TR	8.62	5.38
tblVehicleTrips	SU_TR	20.43	13.77
tblVehicleTrips	WD_TR	6.65	3.49
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	4.90
tblVehicleTrips	WD_TR	11.03	7.84
tblVehicleTrips	WD_TR	127.15	85.65
tblVehicleTrips	WD_TR	8.17	9.58
tblVehicleTrips	WD_TR	9.52	5.94
tblVehicleTrips	WD_TR	44.32	29.86
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
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	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	6.40	0.00
tblWoodstoves	NumberCatalytic	0.50	0.00
tblWoodstoves	NumberCatalytic	1.96	0.00
tblWoodstoves	NumberNoncatalytic	6.40	0.00
tblWoodstoves	NumberNoncatalytic	0.50	0.00
tblWoodstoves	NumberNoncatalytic	1.96	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

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	4.1896	0.0338	2.9369	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6500e-003	0.0000	4.9324
Energy	0.1185	1.0674	0.8349	6.4600e-003		0.0819	0.0819		0.0819	0.0819	0.0000	2,164.0832	2,164.0832	0.1594	0.0498	2,182.9175
Mobile	2.1498	3.1891	15.9769	0.0458	5.4637	0.0343	5.4980	1.4619	0.0321	1.4939	0.0000	4,464.7303	4,464.7303	0.1950	0.0000	4,469.6044
Waste						0.0000	0.0000		0.0000	0.0000	205.2462	0.0000	205.2462	12.1297	0.0000	508.4888
Water						0.0000	0.0000		0.0000	0.0000	26.1899	51.0175	77.2074	0.0972	0.0584	97.0439
Total	**6.4579**	**4.2903**	**19.7488**	**0.0524**	**5.4637**	**0.1324**	**5.5961**	**1.4619**	**0.1302**	**1.5921**	**231.4361**	**6,684.6472**	**6,916.0832**	**12.5859**	**0.1082**	**7,262.9869**

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	4.1896	0.0338	2.9369	1.60E-04		0.0163	0.0163		0.0163	0.0163	0	4.8162	4.8162	4.65E-03	0	4.9324
Energy	0.1185	1.0674	0.8349	6.46E-03		0.0819	0.0819		0.0819	0.0819	0	1,172.37	1,172.37	0.0225	0.0215	1,179.34
Mobile	2.1498	3.1891	15.9769	0.0458	5.4637	0.0343	5.498	1.4619	0.0321	1.4939	0	4,464.73	4,464.73	0.195	0	4,469.60
Waste						0	0		0	0	205.2462	0	205.2462	12.1297	0	508.4888
Water						0	0		0	0	26.1899	51.0175	77.2074	0.0972	0.0584	97.0439

Total	6.4579	4.2903	19.7488	0.0524	5.4637	0.1324	5.5961	1.4619	0.1302	1.5921	231.4361	5,692.94	5,924.37	12.449	0.0799	6,259.41

	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	14.84	14.34	1.09	26.18	13.82

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	2.1498	3.1891	15.9769	0.0458	5.4637	0.0343	5.4980	1.4619	0.0321	1.4939	0.0000	4,464.7303	4,464.7303	0.1950	0.0000	4,469.6044
Unmitigated	2.1498	3.1891	15.9769	0.0458	5.4637	0.0343	5.4980	1.4619	0.0321	1.4939	0.0000	4,464.7303	4,464.7303	0.1950	0.0000	4,469.6044

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,116.80	1,075.20	985.60	2,522,355	2,522,355
City Park	0.00	0.00	0.00		
Condo/Townhouse	122.50	119.50	102.00	275,173	275,173
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	1,254.40	280.00	120.00	2,277,776	2,277,776
High Turnover (Sit Down Restaurant)	3,597.30	4,480.56	3730.02	4,342,220	4,342,220
Hotel	2,203.40	1,587.00	1605.40	3,856,697	3,856,697

Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	291.06	302.82	263.62	667,061	667,061
Strip Mall	537.48	509.94	247.86	757,960	757,960
Total	9,122.94	8,355.02	7,054.50	14,699,242	14,699,242

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
City Park	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Condo/Townhouse	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Enclosed Parking with Elevator	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
General Office Building	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
High Turnover (Sit Down Restaurant)	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Hotel	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Other Non-Asphalt Surfaces	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Parking Lot	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Single Family Housing	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Strip Mall	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	991.7092	991.7092	0.1370	0.0283	1,003.5767
NaturalGas Mitigated	0.1185	1.0674	0.8349	6.4600e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,172.3740	1,172.3740	0.0225	0.0215	1,179.3408
NaturalGas Unmitigated	0.1185	1.0674	0.8349	6.4600e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,172.3740	1,172.3740	0.0225	0.0215	1,179.3408

5.2 Energy by Land Use - NaturalGas

Unmitigated

	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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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

Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Enclosed Parking with Elevator	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
General Office Building	2.6192e+006	0.0141	0.1284	0.1079	7.7000e-004		9.7600e-003	9.7600e-003		9.7600e-003	9.7600e-003	0.0000	139.7705	139.7705	2.6800e-003	2.5600e-003	140.6011
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294
Other Non-Asphalt Surfaces	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
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
Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1185**	**1.0674**	**0.8349**	**6.4600e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,172.3740**	**1,172.3740**	**0.0225**	**0.0215**	**1,179.3408**

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					
Apartments Mid Rise	2.76462e+006	0.0149	0.1274	0.0542	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.5309	147.5309	2.8300e-003	2.7000e-003	148.4076
City Park	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
Condo/Townhouse	468075	2.5200e-003	0.0216	9.1800e-003	1.4000e-004		1.7400e-003	1.7400e-003		1.7400e-003	1.7400e-003	0.0000	24.9783	24.9783	4.8000e-004	4.6000e-004	25.1267
Enclosed Parking with Elevator	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
General Office Building	2.6192e+006	0.0141	0.1284	0.1079	7.7000e-004		9.7600e-003	9.7600e-003		9.7600e-003	9.7600e-003	0.0000	139.7705	139.7705	2.6800e-003	2.5600e-003	140.6011
High Turnover (Sit Down Restaurant)	8.73096e+006	0.0471	0.4280	0.3595	2.5700e-003		0.0325	0.0325		0.0325	0.0325	0.0000	465.9173	465.9173	8.9300e-003	8.5400e-003	468.6860
Hotel	7.34394e+006	0.0396	0.3600	0.3024	2.1600e-003		0.0274	0.0274		0.0274	0.0274	0.0000	391.9006	391.9006	7.5100e-003	7.1800e-003	394.2294

Other Non-Asphalt Surfaces	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
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
Single Family Housing	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
Strip Mall	42660	2.3000e-004	2.0900e-003	1.7600e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2765	2.2765	4.0000e-005	4.0000e-005	2.2900
Total		**0.1185**	**1.0674**	**0.8349**	**6.4600e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,172.3740**	**1,172.3740**	**0.0225**	**0.0215**	**1,179.3408**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.32107e+006	125.8379	0.0174	3.6000e-003	127.3438
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	126136	12.0150	1.6600e-003	3.4000e-004	12.1588
Enclosed Parking with Elevator	2.8714e+006	273.5135	0.0378	7.8100e-003	276.7865
General Office Building	2.8528e+006	271.7418	0.0375	7.7600e-003	274.9936
High Turnover (Sit Down Restaurant)	1.37424e+006	130.9024	0.0181	3.7400e-003	132.4689
Hotel	1.26294e+006	120.3005	0.0166	3.4400e-003	121.7401
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	13720	1.3069	1.8000e-004	4.0000e-005	1.3225
Single Family Housing	396438	37.7625	5.2100e-003	1.0800e-003	38.2144
Strip Mall	192420	18.3289	2.5300e-003	5.2000e-004	18.5482

Total		**991.7092**	**0.1370**	**0.0283**	**1,003.5767**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	4.1896	0.0338	2.9369	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6500e-003	0.0000	4.9324
Unmitigated	4.1896	0.0338	2.9369	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6500e-003	0.0000	4.9324

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	0.5731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0890	0.0338	2.9369	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6500e-003	0.0000	4.9324
Total	**4.1896**	**0.0338**	**2.9369**	**1.6000e-004**		**0.0163**	**0.0163**		**0.0163**	**0.0163**	**0.0000**	**4.8162**	**4.8162**	**4.6500e-003**	**0.0000**	**4.9324**

Mitigated

	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	0.5731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5275					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0890	0.0338	2.9369	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8162	4.8162	4.6500e-003	0.0000	4.9324
Total	**4.1896**	**0.0338**	**2.9369**	**1.6000e-004**		**0.0163**	**0.0163**		**0.0163**	**0.0163**	**0.0000**	**4.8162**	**4.8162**	**4.6500e-003**	**0.0000**	**4.9324**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	77.2074	0.0972	0.0584	97.0439
Unmitigated	77.2074	0.0972	0.0584	97.0439

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085
Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	28.4374 / 17.4294	30.5292	0.0375	0.0225	38.1601
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**77.2074**	**0.0972**	**0.0584**	**97.0439**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
City Park	0 / 2.69275	0.8977	1.2000e-004	3.0000e-005	0.9085

Condo/Townhouse	1.62885 / 1.02688	1.7582	2.1500e-003	1.2900e-003	2.1954
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	28.4374 / 17.4294	30.5292	0.0375	0.0225	38.1601
High Turnover (Sit Down Restaurant)	12.7484 / 0.813729	11.3525	0.0165	0.0100	14.7455
Hotel	5.83436 / 0.648262	5.2875	7.5500e-003	4.5800e-003	6.8414
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.19255 / 2.01269	3.4461	4.2100e-003	2.5200e-003	4.3030
Strip Mall	1.33331 / 0.817187	1.4314	1.7600e-003	1.0500e-003	1.7892
Total		**77.2074**	**0.0972**	**0.0584**	**97.0439**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	205.2462	12.1297	0.0000	508.4888
Unmitigated	205.2462	12.1297	0.0000	508.4888

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	148.8	30.2051	1.7851	0.0000	74.8318
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**205.2462**	**12.1297**	**0.0000**	**508.4888**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Apartments Mid Rise	147.2	29.8803	1.7659	0.0000	74.0271
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Condo/Townhouse	11.5	2.3344	0.1380	0.0000	5.7834
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	148.8	30.2051	1.7851	0.0000	74.8318
High Turnover (Sit Down Restaurant)	499.8	101.4549	5.9958	0.0000	251.3502
Hotel	125.92	25.5606	1.5106	0.0000	63.3254
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	58.8	11.9359	0.7054	0.0000	29.5706
Strip Mall	18.9	3.8365	0.2267	0.0000	9.5048
Total		**205.2462**	**12.1297**	**0.0000**	**508.4888**

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

11.0 Vegetation

Cambrian Park Plaza - AQ/GHG Existing Model
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	764.00	Space	0.00	305,600.00	0
Strip Mall	170.43	1000sqft	17.20	170,427.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 58

Climate Zone 4 **Operational Year** 2024

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 210 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in San Jose. PG&E 2017 Intensity Factor used (latest published rate).

Land Use - Existing Land Use: 170,427 sf of commerical buildings and 764 surface parking spaces

Construction Phase - No Construction Model

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Existing Strip Mall Trip Generation Rates

Vehicle Emission Factors - 2024 EMFAC2017 Santa Clara County Emission Factors

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No woodstoves or hearths (wood or natural gas)

Energy Use -

Water And Wastewater - 100% percent aerobic since it is assumed that water goes through wastewater treament plants

Construction Off-road Equipment Mitigation - Advanced best management practices, Tier 4 inteirm for exhaust mitigation

Energy Mitigation - SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on

Fleet Mix - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	9/24/2021	9/10/2021
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDA	0.61	0.59
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0150e-003	5.3025e-003
tblFleetMix	LHD2	5.0150e-003	5.3025e-003
tblFleetMix	MCY	5.2490e-003	5.0760e-003
tblFleetMix	MCY	5.2490e-003	5.0760e-003
tblFleetMix	MDV	0.10	0.11

tblFleetMix	MDV	0.10	0.11
tblFleetMix	MH	7.0400e-004	7.5242e-004
tblFleetMix	MH	7.0400e-004	7.5242e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.1770e-003	1.5888e-003
tblFleetMix	OBUS	2.1770e-003	1.5888e-003
tblFleetMix	SBUS	6.3200e-004	9.2007e-004
tblFleetMix	SBUS	6.3200e-004	9.2007e-004
tblFleetMix	UBUS	1.5140e-003	1.2476e-003
tblFleetMix	UBUS	1.5140e-003	1.2476e-003
tblLandUse	LotAcreage	6.88	0.00
tblLandUse	LotAcreage	3.91	17.20
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblVehicleEF	HHD	0.33	0.02
tblVehicleEF	HHD	0.05	0.05
tblVehicleEF	HHD	0.07	0.00
tblVehicleEF	HHD	1.57	6.33
tblVehicleEF	HHD	0.92	0.40
tblVehicleEF	HHD	3.67	5.9420e-003
tblVehicleEF	HHD	4,319.24	1,048.88
tblVehicleEF	HHD	1,548.08	1,413.90
tblVehicleEF	HHD	11.68	0.05
tblVehicleEF	HHD	13.63	5.39
tblVehicleEF	HHD	1.93	2.69
tblVehicleEF	HHD	19.37	2.32
tblVehicleEF	HHD	7.2790e-003	2.5820e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.1410e-003	0.02

tblVehicleEF	HHD	1.0800e-004	1.0000e-006
tblVehicleEF	HHD	6.9640e-003	2.4710e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8360e-003	8.8830e-003
tblVehicleEF	HHD	5.8750e-003	0.02
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.41	0.43
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.09	2.0000e-006
tblVehicleEF	HHD	0.04	9.7610e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.7700e-004	0.00
tblVehicleEF	HHD	9.5000e-005	2.0000e-006
tblVehicleEF	HHD	4.9100e-003	9.3000e-005
tblVehicleEF	HHD	0.47	0.49
tblVehicleEF	HHD	5.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.08
tblVehicleEF	HHD	4.0900e-004	4.7300e-004
tblVehicleEF	HHD	0.10	3.0000e-006
tblVehicleEF	LDA	3.0460e-003	1.7200e-003
tblVehicleEF	LDA	4.1440e-003	0.04
tblVehicleEF	LDA	0.47	0.53
tblVehicleEF	LDA	0.98	2.09
tblVehicleEF	LDA	224.31	239.45
tblVehicleEF	LDA	52.96	50.82
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.06	0.17
tblVehicleEF	LDA	1.5950e-003	1.2960e-003
tblVehicleEF	LDA	2.2180e-003	1.6800e-003
tblVehicleEF	LDA	1.4690e-003	1.1940e-003
tblVehicleEF	LDA	2.0400e-003	1.5440e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	7.6460e-003	6.4160e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2460e-003	9.3000e-005
tblVehicleEF	LDA	5.4600e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.08
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.01	9.3280e-003
tblVehicleEF	LDA	0.04	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	6.9850e-003	3.6010e-003
tblVehicleEF	LDT1	9.7160e-003	0.06
tblVehicleEF	LDT1	0.91	0.85
tblVehicleEF	LDT1	2.05	2.27
tblVehicleEF	LDT1	281.97	286.67
tblVehicleEF	LDT1	66.03	61.55
tblVehicleEF	LDT1	0.09	0.07
tblVehicleEF	LDT1	0.11	0.21
tblVehicleEF	LDT1	2.1030e-003	1.6460e-003
tblVehicleEF	LDT1	2.8260e-003	2.1080e-003
tblVehicleEF	LDT1	1.9360e-003	1.5150e-003

tblVehicleEF	LDT1	2.5980e-003	1.9380e-003
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.13	0.27
tblVehicleEF	LDT1	2.8300e-003	2.6190e-003
tblVehicleEF	LDT1	6.9600e-004	0.00
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.19	0.15
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.14	0.54
tblVehicleEF	LDT1	0.14	0.30
tblVehicleEF	LDT2	4.5890e-003	2.9320e-003
tblVehicleEF	LDT2	5.7820e-003	0.06
tblVehicleEF	LDT2	0.65	0.74
tblVehicleEF	LDT2	1.32	2.70
tblVehicleEF	LDT2	319.72	308.00
tblVehicleEF	LDT2	74.64	66.71
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.09	0.25
tblVehicleEF	LDT2	1.6510e-003	1.3470e-003
tblVehicleEF	LDT2	2.3140e-003	1.7010e-003
tblVehicleEF	LDT2	1.5190e-003	1.2400e-003
tblVehicleEF	LDT2	2.1270e-003	1.5640e-003
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.2020e-003	0.01
tblVehicleEF	LDT2	7.6800e-004	9.1000e-005
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.41
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	5.1130e-003	4.9880e-003
tblVehicleEF	LHD1	0.02	7.8580e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.18
tblVehicleEF	LHD1	0.94	0.71
tblVehicleEF	LHD1	2.42	1.05
tblVehicleEF	LHD1	8.98	8.86
tblVehicleEF	LHD1	679.88	779.34
tblVehicleEF	LHD1	31.45	11.55
tblVehicleEF	LHD1	0.07	0.06
tblVehicleEF	LHD1	1.00	0.65
tblVehicleEF	LHD1	0.94	0.30
tblVehicleEF	LHD1	8.5700e-004	8.4200e-004
tblVehicleEF	LHD1	0.01	9.7790e-003
tblVehicleEF	LHD1	0.01	9.6230e-003
tblVehicleEF	LHD1	9.0500e-004	2.4700e-004
tblVehicleEF	LHD1	8.2000e-004	8.0500e-004
tblVehicleEF	LHD1	2.5360e-003	2.4450e-003
tblVehicleEF	LHD1	0.01	9.1590e-003

tblVehicleEF	LHD1	8.3200e-004	2.2800e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	9.0000e-005	8.6000e-005
tblVehicleEF	LHD1	6.6680e-003	7.6080e-003
tblVehicleEF	LHD1	3.6000e-004	1.1400e-004
tblVehicleEF	LHD1	2.5370e-003	1.9120e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.3080e-003	9.8500e-004
tblVehicleEF	LHD1	0.14	0.11
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD2	3.1970e-003	3.0380e-003
tblVehicleEF	LHD2	7.0200e-003	6.6540e-003
tblVehicleEF	LHD2	5.9370e-003	7.7290e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.53	0.59
tblVehicleEF	LHD2	1.09	0.60
tblVehicleEF	LHD2	13.93	13.88
tblVehicleEF	LHD2	699.69	754.92
tblVehicleEF	LHD2	23.61	7.59
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.59	0.77
tblVehicleEF	LHD2	0.41	0.17

tblVehicleEF	LHD2	1.2120e-003	1.4370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0000e-004	1.2700e-004
tblVehicleEF	LHD2	1.1590e-003	1.3750e-003
tblVehicleEF	LHD2	2.6950e-003	2.6920e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.6800e-004	1.1700e-004
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	LHD2	1.3600e-004	1.3300e-004
tblVehicleEF	LHD2	6.8030e-003	7.2890e-003
tblVehicleEF	LHD2	2.5500e-004	7.5000e-005
tblVehicleEF	LHD2	7.4700e-004	9.8500e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.0800e-004	5.1400e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.06	0.25
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	MCY	0.45	0.33
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	18.47	18.60
tblVehicleEF	MCY	10.21	9.06
tblVehicleEF	MCY	170.05	210.08

tblVehicleEF	MCY	44.74	60.71
tblVehicleEF	MCY	1.14	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.0290e-003	1.9970e-003
tblVehicleEF	MCY	3.5220e-003	2.9300e-003
tblVehicleEF	MCY	1.8960e-003	1.8650e-003
tblVehicleEF	MCY	3.3110e-003	2.7520e-003
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.18	2.19
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.18	1.93
tblVehicleEF	MCY	2.0670e-003	2.0790e-003
tblVehicleEF	MCY	6.7900e-004	6.0100e-004
tblVehicleEF	MCY	0.90	1.80
tblVehicleEF	MCY	0.68	0.68
tblVehicleEF	MCY	0.49	0.98
tblVehicleEF	MCY	2.71	2.72
tblVehicleEF	MCY	0.58	1.89
tblVehicleEF	MCY	2.38	2.10
tblVehicleEF	MDV	8.4590e-003	3.4000e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.97	0.78
tblVehicleEF	MDV	2.43	2.96
tblVehicleEF	MDV	429.38	372.42
tblVehicleEF	MDV	98.57	79.53
tblVehicleEF	MDV	0.12	0.07
tblVehicleEF	MDV	0.21	0.29
tblVehicleEF	MDV	1.7680e-003	1.4380e-003

tblVehicleEF	MDV	2.4430e-003	1.8100e-003
tblVehicleEF	MDV	1.6290e-003	1.3260e-003
tblVehicleEF	MDV	2.2460e-003	1.6640e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.18	0.34
tblVehicleEF	MDV	4.2980e-003	3.6060e-003
tblVehicleEF	MDV	1.0280e-003	7.7100e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.13
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.43
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	9.5570e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.61	0.93
tblVehicleEF	MH	5.16	2.03
tblVehicleEF	MH	1,207.03	1,501.42
tblVehicleEF	MH	58.43	18.14
tblVehicleEF	MH	1.20	1.31
tblVehicleEF	MH	0.77	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0680e-003	2.6100e-004
tblVehicleEF	MH	3.2200e-003	3.2790e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	9.8200e-004	2.4000e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.08	0.06
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.30	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.7400e-004	1.7900e-004
tblVehicleEF	MH	0.74	0.64
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.23
tblVehicleEF	MH	0.11	0.08
tblVehicleEF	MH	0.02	1.30
tblVehicleEF	MH	0.33	0.10
tblVehicleEF	MHD	0.02	3.5790e-003
tblVehicleEF	MHD	4.0660e-003	1.6940e-003
tblVehicleEF	MHD	0.04	9.1320e-003
tblVehicleEF	MHD	0.37	0.39
tblVehicleEF	MHD	0.33	0.23
tblVehicleEF	MHD	5.40	1.07
tblVehicleEF	MHD	133.37	72.08
tblVehicleEF	MHD	1,186.25	1,080.76
tblVehicleEF	MHD	60.77	9.15
tblVehicleEF	MHD	0.36	0.41
tblVehicleEF	MHD	1.10	1.45
tblVehicleEF	MHD	10.18	1.70
tblVehicleEF	MHD	1.0800e-004	3.6900e-004
tblVehicleEF	MHD	3.1100e-003	7.0230e-003
tblVehicleEF	MHD	8.7400e-004	1.1500e-004

tblVehicleEF	MHD	1.0300e-004	3.5300e-004
tblVehicleEF	MHD	2.9690e-003	6.7130e-003
tblVehicleEF	MHD	8.0400e-004	1.0600e-004
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.32	0.05
tblVehicleEF	MHD	1.2850e-003	6.8400e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0200e-004	9.1000e-005
tblVehicleEF	MHD	8.3100e-004	3.8300e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.4000e-004	1.9800e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.35	0.05
tblVehicleEF	OBUS	0.01	7.0640e-003
tblVehicleEF	OBUS	5.8410e-003	3.6240e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.58
tblVehicleEF	OBUS	0.41	0.43
tblVehicleEF	OBUS	4.81	1.84
tblVehicleEF	OBUS	100.21	92.66
tblVehicleEF	OBUS	1,290.88	1,326.08
tblVehicleEF	OBUS	66.64	15.18
tblVehicleEF	OBUS	0.21	0.38

tblVehicleEF	OBUS	0.91	1.47
tblVehicleEF	OBUS	2.68	1.09
tblVehicleEF	OBUS	1.9000e-005	1.2200e-004
tblVehicleEF	OBUS	2.7550e-003	7.3930e-003
tblVehicleEF	OBUS	8.3600e-004	1.4500e-004
tblVehicleEF	OBUS	1.9000e-005	1.1700e-004
tblVehicleEF	OBUS	2.6160e-003	7.0600e-003
tblVehicleEF	OBUS	7.6900e-004	1.3300e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.30	0.09
tblVehicleEF	OBUS	9.6800e-004	8.8000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5100e-004	1.5000e-004
tblVehicleEF	OBUS	1.1720e-003	1.0900e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	5.1800e-004	4.8500e-004
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.33	0.10
tblVehicleEF	SBUS	0.82	0.05
tblVehicleEF	SBUS	0.02	6.0180e-003
tblVehicleEF	SBUS	0.07	4.9720e-003
tblVehicleEF	SBUS	8.25	2.27
tblVehicleEF	SBUS	0.95	0.49

tblVehicleEF	SBUS	9.30	0.72
tblVehicleEF	SBUS	1,096.83	346.78
tblVehicleEF	SBUS	1,045.14	1,049.23
tblVehicleEF	SBUS	56.99	4.12
tblVehicleEF	SBUS	7.84	3.44
tblVehicleEF	SBUS	3.38	4.65
tblVehicleEF	SBUS	11.88	0.86
tblVehicleEF	SBUS	6.9900e-003	3.6120e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	9.2200e-004	4.8000e-005
tblVehicleEF	SBUS	6.6880e-003	3.4560e-003
tblVehicleEF	SBUS	2.6210e-003	2.7190e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	8.4800e-004	4.4000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	0.98	0.25
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.10	0.08
tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.46	0.03
tblVehicleEF	SBUS	0.01	3.3010e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	7.3000e-004	4.1000e-005
tblVehicleEF	SBUS	3.3520e-003	5.6700e-004
tblVehicleEF	SBUS	0.04	5.5090e-003
tblVehicleEF	SBUS	1.42	0.36
tblVehicleEF	SBUS	1.4930e-003	2.4700e-004
tblVehicleEF	SBUS	0.13	0.10

tblVehicleEF	SBUS	0.02	0.04
tblVehicleEF	SBUS	0.51	0.03
tblVehicleEF	UBUS	0.23	1.35
tblVehicleEF	UBUS	0.04	1.5380e-003
tblVehicleEF	UBUS	4.19	10.12
tblVehicleEF	UBUS	7.24	0.14
tblVehicleEF	UBUS	2,047.05	1,597.16
tblVehicleEF	UBUS	107.16	1.39
tblVehicleEF	UBUS	8.64	0.73
tblVehicleEF	UBUS	14.31	0.01
tblVehicleEF	UBUS	0.59	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.19	5.3280e-003
tblVehicleEF	UBUS	1.1060e-003	1.5000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.18	5.0960e-003
tblVehicleEF	UBUS	1.0170e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.45	0.02
tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.55	6.4070e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.2020e-003	1.4000e-005
tblVehicleEF	UBUS	1.8960e-003	2.1000e-005
tblVehicleEF	UBUS	0.03	1.6100e-004
tblVehicleEF	UBUS	9.9500e-004	9.0000e-006
tblVehicleEF	UBUS	0.73	1.38

tblVehicleEF	UBUS	7.1180e-003	8.1400e-004
tblVehicleEF	UBUS	0.61	7.0150e-003
tblVehicleTrips	ST_TR	42.04	35.81
tblVehicleTrips	SU_TR	20.43	17.40
tblVehicleTrips	WD_TR	44.32	37.75
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

2.2 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	0.7814	8.0000e-005	8.5700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Energy	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	205.2833	205.2833	0.0258	5.6400e-003	207.6100
Mobile	1.9244	2.4553	12.7425	0.0317	3.3715	0.0266	3.3980	0.9020	0.0248	0.9268	0.0000	3,114.1700	3,114.1700	0.1688	0.0000	3,118.3895
Waste						0.0000	0.0000		0.0000	0.0000	36.3252	0.0000	36.3252	2.1468	0.0000	89.9942
Water						0.0000	0.0000		0.0000	0.0000	4.4665	9.0864	13.5528	0.0166	9.9700e-003	16.9404
Total	**2.7080**	**2.4752**	**12.7677**	**0.0318**	**3.3715**	**0.0281**	**3.3995**	**0.9020**	**0.0263**	**0.9283**	**40.7917**	**3,328.5563**	**3,369.3480**	**2.3580**	**0.0156**	**3,432.9519**

Mitigated Operational

Category	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
	tons/yr										MT/yr					
Area	0.7814	8.00E-05	8.57E-03	0		3.00E-05	3.00E-05		3.00E-05	3.00E-05	0	0.0167	0.0167	4.00E-05	0	0.0178
Energy	2.18E-03	0.0198	0.0166	1.20E-04		1.50E-03	1.50E-03		1.50E-03	1.50E-03	0	21.5543	21.5543	4.10E-04	4.00E-04	21.6824
Mobile	1.9244	2.4553	12.7425	0.0317	3.3715	0.0266	3.398	0.902	0.0248	0.9268	0	3,114.17	3,114.17	0.1688	0	3,118.39
Waste						0	0		0	0	36.3252	0	36.3252	2.1468	0	89.9942
Water						0	0		0	0	4.4665	9.0864	13.5528	0.0166	9.97E-03	16.9404
Total	**2.708**	**2.4752**	**12.7677**	**0.0318**	**3.3715**	**0.0281**	**3.3995**	**0.902**	**0.0263**	**0.9283**	**40.7917**	**3,144.83**	**3,185.62**	**2.3326**	**0.0104**	**3,247.02**

	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**	**5.52**	**5.45**	**1.08**	**33.57**	**5.42**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	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
	tons/yr										MT/yr					

Mitigated	1.9244	2.4553	12.7425	0.0317	3.3715	0.0266	3.3980	0.9020	0.0248	0.9268	0.0000	3,114.1700	3,114.1700	0.1688	0.0000	3,118.3895
Unmitigated	1.9244	2.4553	12.7425	0.0317	3.3715	0.0266	3.3980	0.9020	0.0248	0.9268	0.0000	3,114.1700	3,114.1700	0.1688	0.0000	3,118.3895

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	6,433.62	6,102.99	2965.43	9,072,228	9,072,228
Total	6,433.62	6,102.99	2,965.43	9,072,228	9,072,228

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752
Strip Mall	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.000920	0.000752

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	183.7290	183.7290	0.0254	5.2500e-003	185.9277
NaturalGas Mitigated	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824
NaturalGas Unmitigated	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824

5.2 Energy by Land Use - NaturalGas

Unmitigated

	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
Strip Mall	403912	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824
Total		**2.1800e-003**	**0.0198**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.5543**	**21.5543**	**4.1000e-004**	**4.0000e-004**	**21.6824**

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
Strip Mall	403912	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824
Total		**2.1800e-003**	**0.0198**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.5543**	**21.5543**	**4.1000e-004**	**4.0000e-004**	**21.6824**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	106960	10.1884	1.4100e-003	2.9000e-004	10.3103
Strip Mall	1.82186e+006	173.5406	0.0240	4.9600e-003	175.6173
Total		**183.7290**	**0.0254**	**5.2500e-003**	**185.9277**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	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
	tons/yr										MT/yr					
Mitigated	0.7814	8.0000e-005	8.5700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Unmitigated	0.7814	8.0000e-005	8.5700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178

6.2 Area by SubCategory

Unmitigated

SubCategory	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
	tons/yr										MT/yr					
Architectural Coating	0.0952					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.5700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Total	**0.7814**	**8.0000e-005**	**8.5700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**4.0000e-005**	**0.0000**	**0.0178**

Mitigated

	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	0.0952					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.5700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Total	**0.7814**	**8.0000e-005**	**8.5700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**4.0000e-005**	**0.0000**	**0.0178**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.5528	0.0166	9.9700e-003	16.9404
Unmitigated	13.5528	0.0166	9.9700e-003	16.9404

7.2 Water by Land Use

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
Strip Mall	12.6242 / 7.7374	13.5528	0.0166	9.9700e-003	16.9404
Total		**13.5528**	**0.0166**	**9.9700e-003**	**16.9404**

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
Strip Mall	12.6242 / 7.7374	13.5528	0.0166	9.9700e-003	16.9404
Total		**13.5528**	**0.0166**	**9.9700e-003**	**16.9404**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	36.3252	2.1468	0.0000	89.9942
Unmitigated	36.3252	2.1468	0.0000	89.9942

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
Strip Mall	178.95	36.3252	2.1468	0.0000	89.9942
Total		**36.3252**	**2.1468**	**0.0000**	**89.9942**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	178.95	36.3252	2.1468	0.0000	89.9942
Total		**36.3252**	**2.1468**	**0.0000**	**89.9942**

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

11.0 Vegetation

Cambrian Park Plaza - 2030 GHG Existing Model

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	764.00	Space	0.00	305,600.00	0
Strip Mall	170.43	1000sqft	17.20	170,427.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project in San Jose. PG&E 2017 Intensity Factor used (latest published rate).

Land Use - Existing Land Use: 170,427 sf of commerical buildings and 764 surface parking spaces

Construction Phase - No Construction Model

Off-road Equipment - Project Applicant Equipment List

Off-road Equipment - Project Applicant Equipment List

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Existing Strip Mall Trip Generation Rates

Vehicle Emission Factors - 2030 EMFAC2017 Santa Clara County Emission Factors

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Energy Use -

Water And Wastewater - 100% percent aerobic since it is assumed that water goes through wastewater treament plants

Construction Off-road Equipment Mitigation - Advanced best management practices, Tier 4 inteirm for exhaust mitigation

Energy Mitigation - SJCE is the electrciity provider in San Jose. Will provide 100% carbon free electricity from 2021 on

Fleet Mix - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT1	0.03	0.05
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	5.0600e-003	5.5563e-003
tblFleetMix	LHD2	5.0600e-003	5.5563e-003
tblFleetMix	MCY	5.1220e-003	4.7803e-003
tblFleetMix	MCY	5.1220e-003	4.7803e-003
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11

tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MH	6.5100e-004	7.2763e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	OBUS	2.2210e-003	1.4429e-003
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	SBUS	6.4600e-004	9.0041e-004
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblFleetMix	UBUS	1.4700e-003	1.1782e-003
tblLandUse	LandUseSquareFeet	170,430.00	170,427.00
tblLandUse	LotAcreage	6.88	0.00
tblLandUse	LotAcreage	3.91	17.20
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblVehicleEF	HHD	0.27	0.02
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.43	6.28
tblVehicleEF	HHD	0.94	0.41
tblVehicleEF	HHD	4.01	6.6850e-003
tblVehicleEF	HHD	4,037.05	930.05
tblVehicleEF	HHD	1,498.85	1,226.35
tblVehicleEF	HHD	12.27	0.05
tblVehicleEF	HHD	12.16	5.20
tblVehicleEF	HHD	1.59	2.52
tblVehicleEF	HHD	19.20	2.31
tblVehicleEF	HHD	3.6830e-003	2.1460e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.6600e-003	0.02

tblVehicleEF	HHD	1.3500e-004	1.0000e-006
tblVehicleEF	HHD	3.5230e-003	2.0530e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8550e-003	8.9050e-003
tblVehicleEF	HHD	5.4140e-003	0.02
tblVehicleEF	HHD	1.2400e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.37	0.42
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	8.6530e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.8800e-004	1.0000e-006
tblVehicleEF	HHD	1.0100e-004	1.0000e-006
tblVehicleEF	HHD	4.6010e-003	5.8000e-005
tblVehicleEF	HHD	0.43	0.49
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1900e-004	2.8400e-004
tblVehicleEF	HHD	0.08	2.0000e-006
tblVehicleEF	LDA	1.8990e-003	9.5900e-004
tblVehicleEF	LDA	2.1050e-003	0.03
tblVehicleEF	LDA	0.33	0.41
tblVehicleEF	LDA	0.63	1.72
tblVehicleEF	LDA	181.37	213.89
tblVehicleEF	LDA	42.51	45.13
tblVehicleEF	LDA	0.03	0.02

tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.1470e-003	9.2900e-004
tblVehicleEF	LDA	1.8260e-003	1.2750e-003
tblVehicleEF	LDA	1.0560e-003	8.5500e-004
tblVehicleEF	LDA	1.6790e-003	1.1720e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	4.7560e-003	3.2470e-003
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tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	1.8150e-003	9.0000e-005
tblVehicleEF	LDA	4.3500e-004	0.00
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	6.9190e-003	4.7160e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDT1	3.6800e-003	1.6710e-003
tblVehicleEF	LDT1	4.5270e-003	0.04
tblVehicleEF	LDT1	0.55	0.54
tblVehicleEF	LDT1	1.12	1.85
tblVehicleEF	LDT1	233.07	258.41
tblVehicleEF	LDT1	54.62	55.17
tblVehicleEF	LDT1	0.05	0.03
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	1.4520e-003	1.0700e-003
tblVehicleEF	LDT1	2.1870e-003	1.4610e-003
tblVehicleEF	LDT1	1.3350e-003	9.8400e-004

tblVehicleEF	LDT1	2.0110e-003	1.3440e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	9.1170e-003	6.5000e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.06	0.15
tblVehicleEF	LDT1	2.3350e-003	2.5670e-003
tblVehicleEF	LDT1	5.6500e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	9.4830e-003
tblVehicleEF	LDT1	0.09	0.36
tblVehicleEF	LDT1	0.07	0.17
tblVehicleEF	LDT2	2.9960e-003	1.7260e-003
tblVehicleEF	LDT2	3.1970e-003	0.04
tblVehicleEF	LDT2	0.49	0.56
tblVehicleEF	LDT2	0.89	2.29
tblVehicleEF	LDT2	264.16	267.33
tblVehicleEF	LDT2	61.38	57.57
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.05	0.17
tblVehicleEF	LDT2	1.3060e-003	1.0250e-003
tblVehicleEF	LDT2	2.0190e-003	1.3400e-003
tblVehicleEF	LDT2	1.2010e-003	9.4400e-004
tblVehicleEF	LDT2	1.8570e-003	1.2320e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05

tblVehicleEF	LDT2	7.4390e-003	6.5530e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.04	0.18
tblVehicleEF	LDT2	2.6450e-003	9.4800e-003
tblVehicleEF	LDT2	6.2800e-004	8.5000e-005
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	9.5240e-003
tblVehicleEF	LDT2	0.06	0.34
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LHD1	3.9820e-003	4.1480e-003
tblVehicleEF	LHD1	8.6490e-003	5.1950e-003
tblVehicleEF	LHD1	0.01	9.0230e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.61	0.47
tblVehicleEF	LHD1	1.67	0.89
tblVehicleEF	LHD1	8.93	8.25
tblVehicleEF	LHD1	641.43	698.55
tblVehicleEF	LHD1	26.94	10.09
tblVehicleEF	LHD1	0.06	0.05
tblVehicleEF	LHD1	0.53	0.30
tblVehicleEF	LHD1	0.67	0.23
tblVehicleEF	LHD1	7.8900e-004	9.1500e-004
tblVehicleEF	LHD1	0.01	9.9010e-003
tblVehicleEF	LHD1	0.01	7.0190e-003
tblVehicleEF	LHD1	6.6500e-004	2.1000e-004
tblVehicleEF	LHD1	7.5500e-004	8.7500e-004
tblVehicleEF	LHD1	2.6030e-003	2.4750e-003
tblVehicleEF	LHD1	9.7020e-003	6.6710e-003

tblVehicleEF	LHD1	6.1100e-004	1.9300e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.15	0.04
tblVehicleEF	LHD1	8.9000e-005	8.0000e-005
tblVehicleEF	LHD1	6.2670e-003	6.8120e-003
tblVehicleEF	LHD1	3.0000e-004	1.0000e-004
tblVehicleEF	LHD1	1.8620e-003	1.4030e-003
tblVehicleEF	LHD1	0.08	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0210e-003	7.7200e-004
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.26	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD2	2.5430e-003	2.5050e-003
tblVehicleEF	LHD2	5.3180e-003	5.3390e-003
tblVehicleEF	LHD2	3.2330e-003	4.8110e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.45	0.49
tblVehicleEF	LHD2	0.88	0.48
tblVehicleEF	LHD2	13.62	13.00
tblVehicleEF	LHD2	675.95	679.81
tblVehicleEF	LHD2	21.83	6.44
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.22	0.38
tblVehicleEF	LHD2	0.26	0.12

tblVehicleEF	LHD2	1.0460e-003	1.5020e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.3120e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0600e-004
tblVehicleEF	LHD2	1.0000e-003	1.4370e-003
tblVehicleEF	LHD2	2.7080e-003	2.7110e-003
tblVehicleEF	LHD2	8.8860e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.8000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.04	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2400e-004
tblVehicleEF	LHD2	6.5670e-003	6.5570e-003
tblVehicleEF	LHD2	2.3300e-004	6.4000e-005
tblVehicleEF	LHD2	5.1500e-004	6.4200e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.0800e-004	3.7400e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.52	17.61
tblVehicleEF	MCY	10.34	9.20
tblVehicleEF	MCY	171.38	209.76

tblVehicleEF	MCY	42.85	59.23
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1570e-003	2.1380e-003
tblVehicleEF	MCY	3.3210e-003	2.8620e-003
tblVehicleEF	MCY	2.0120e-003	1.9940e-003
tblVehicleEF	MCY	3.1070e-003	2.6760e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.12	2.13
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.11	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.5900e-004	5.8600e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.61	0.63
tblVehicleEF	MCY	0.46	0.95
tblVehicleEF	MCY	2.66	2.67
tblVehicleEF	MCY	0.46	1.49
tblVehicleEF	MCY	2.30	2.04
tblVehicleEF	MDV	5.1180e-003	1.7720e-003
tblVehicleEF	MDV	7.2260e-003	0.04
tblVehicleEF	MDV	0.68	0.55
tblVehicleEF	MDV	1.51	2.32
tblVehicleEF	MDV	358.67	322.27
tblVehicleEF	MDV	82.28	67.92
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.11	0.18
tblVehicleEF	MDV	1.3880e-003	1.0340e-003

tblVehicleEF	MDV	2.0820e-003	1.3440e-003
tblVehicleEF	MDV	1.2780e-003	9.5400e-004
tblVehicleEF	MDV	1.9150e-003	1.2360e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	6.8870e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.10	0.20
tblVehicleEF	MDV	3.5870e-003	2.9760e-003
tblVehicleEF	MDV	8.4800e-004	6.2800e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	9.9830e-003
tblVehicleEF	MDV	0.09	0.34
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MH	8.2310e-003	5.0270e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.45	0.31
tblVehicleEF	MH	3.72	1.64
tblVehicleEF	MH	1,184.19	1,350.27
tblVehicleEF	MH	56.79	15.54
tblVehicleEF	MH	0.84	1.06
tblVehicleEF	MH	0.62	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.8300e-004	2.1200e-004
tblVehicleEF	MH	3.2210e-003	3.2970e-003
tblVehicleEF	MH	0.01	0.02

tblVehicleEF	MH	8.1200e-004	1.9500e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.22	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3200e-004	1.5400e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.18	0.14
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.01	0.54
tblVehicleEF	MH	0.24	0.08
tblVehicleEF	MHD	0.02	3.8320e-003
tblVehicleEF	MHD	2.7470e-003	1.0340e-003
tblVehicleEF	MHD	0.03	8.3830e-003
tblVehicleEF	MHD	0.37	0.41
tblVehicleEF	MHD	0.25	0.15
tblVehicleEF	MHD	3.74	0.87
tblVehicleEF	MHD	131.96	65.10
tblVehicleEF	MHD	1,167.79	993.45
tblVehicleEF	MHD	59.45	8.55
tblVehicleEF	MHD	0.34	0.34
tblVehicleEF	MHD	1.04	1.43
tblVehicleEF	MHD	9.99	1.69
tblVehicleEF	MHD	5.2000e-005	1.6200e-004
tblVehicleEF	MHD	3.0080e-003	7.0060e-003
tblVehicleEF	MHD	8.2100e-004	1.1200e-004

tblVehicleEF	MHD	5.0000e-005	1.5500e-004
tblVehicleEF	MHD	2.8710e-003	6.6960e-003
tblVehicleEF	MHD	7.5400e-004	1.0300e-004
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.23	0.04
tblVehicleEF	MHD	1.2710e-003	6.1800e-004
tblVehicleEF	MHD	0.01	9.4800e-003
tblVehicleEF	MHD	6.6000e-004	8.5000e-005
tblVehicleEF	MHD	6.4300e-004	2.8900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8200e-004	1.6800e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.25	0.05
tblVehicleEF	OBUS	0.01	7.0980e-003
tblVehicleEF	OBUS	4.0840e-003	2.1970e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.30	0.26
tblVehicleEF	OBUS	4.08	1.58
tblVehicleEF	OBUS	110.55	97.36
tblVehicleEF	OBUS	1,272.30	1,210.85
tblVehicleEF	OBUS	64.94	13.46
tblVehicleEF	OBUS	0.24	0.43

tblVehicleEF	OBUS	0.85	1.45
tblVehicleEF	OBUS	2.74	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4200e-004
tblVehicleEF	OBUS	2.8340e-003	7.8820e-003
tblVehicleEF	OBUS	9.3800e-004	1.5600e-004
tblVehicleEF	OBUS	2.1000e-005	1.3600e-004
tblVehicleEF	OBUS	2.6900e-003	7.5260e-003
tblVehicleEF	OBUS	8.6200e-004	1.4400e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0660e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2100e-004	1.3300e-004
tblVehicleEF	OBUS	1.1660e-003	1.0620e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.3200e-004	4.8700e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.28	0.08
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	7.6490e-003	4.4040e-003
tblVehicleEF	SBUS	0.06	6.3380e-003
tblVehicleEF	SBUS	8.87	2.93
tblVehicleEF	SBUS	0.48	0.37

tblVehicleEF	SBUS	7.57	0.86
tblVehicleEF	SBUS	1,023.58	337.48
tblVehicleEF	SBUS	1,008.60	970.50
tblVehicleEF	SBUS	61.81	5.06
tblVehicleEF	SBUS	4.35	2.71
tblVehicleEF	SBUS	1.72	3.09
tblVehicleEF	SBUS	10.76	1.18
tblVehicleEF	SBUS	2.1870e-003	2.0480e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	8.4940e-003	0.02
tblVehicleEF	SBUS	1.1020e-003	6.8000e-005
tblVehicleEF	SBUS	2.0920e-003	1.9600e-003
tblVehicleEF	SBUS	2.5880e-003	2.6690e-003
tblVehicleEF	SBUS	8.1060e-003	0.02
tblVehicleEF	SBUS	1.0130e-003	6.2000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.05	0.32
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.01	3.2190e-003
tblVehicleEF	SBUS	9.7440e-003	9.2880e-003
tblVehicleEF	SBUS	7.4900e-004	5.0000e-005
tblVehicleEF	SBUS	3.7080e-003	8.7000e-004
tblVehicleEF	SBUS	0.03	8.3040e-003
tblVehicleEF	SBUS	1.53	0.46
tblVehicleEF	SBUS	1.7580e-003	4.1400e-004
tblVehicleEF	SBUS	0.08	0.07

tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.43	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.1860e-003
tblVehicleEF	UBUS	3.04	14.11
tblVehicleEF	UBUS	7.59	0.14
tblVehicleEF	UBUS	1,937.16	1,668.67
tblVehicleEF	UBUS	126.43	1.40
tblVehicleEF	UBUS	4.75	0.71
tblVehicleEF	UBUS	13.02	0.02
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.10	5.1160e-003
tblVehicleEF	UBUS	1.3960e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.10	4.8930e-003
tblVehicleEF	UBUS	1.2840e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.65	9.2610e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.4020e-003	1.4000e-005
tblVehicleEF	UBUS	2.5990e-003	6.1000e-005
tblVehicleEF	UBUS	0.04	8.1400e-004
tblVehicleEF	UBUS	1.5170e-003	3.6000e-005
tblVehicleEF	UBUS	0.48	1.90

tblVehicleEF	UBUS	9.4350e-003	4.9280e-003
tblVehicleEF	UBUS	0.71	0.01
tblVehicleTrips	ST_TR	42.04	35.81
tblVehicleTrips	SU_TR	20.43	17.40
tblVehicleTrips	WD_TR	44.32	37.75
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

2.2 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	0.7814	8.0000e-005	8.5400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Energy	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	205.2833	205.2833	0.0258	5.6400e-003	207.6100
Mobile	1.4364	2.0396	10.2711	0.0283	3.3722	0.0214	3.3936	0.9023	0.0200	0.9223	0.0000	2,768.8120	2,768.8120	0.1265	0.0000	2,771.9749
Waste						0.0000	0.0000		0.0000	0.0000	36.3252	0.0000	36.3252	2.1468	0.0000	89.9942
Water						0.0000	0.0000		0.0000	0.0000	4.4665	9.0864	13.5528	0.0166	9.9700e-003	16.9404
Total	**2.2199**	**2.0595**	**10.2962**	**0.0284**	**3.3722**	**0.0229**	**3.3952**	**0.9023**	**0.0216**	**0.9238**	**40.7917**	**2,983.1984**	**3,023.9900**	**2.3157**	**0.0156**	**3,086.5373**

Mitigated Operational

Category	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
	tons/yr										MT/yr					
Area	0.7814	8.00E-05	8.54E-03	0		3.00E-05	3.00E-05		3.00E-05	3.00E-05	0	0.0167	0.0167	4.00E-05	0	0.0178
Energy	2.18E-03	0.0198	0.0166	1.20E-04		1.50E-03	1.50E-03		1.50E-03	1.50E-03	0	21.5543	21.5543	4.10E-04	4.00E-04	21.6824
Mobile	1.4364	2.0396	10.2711	0.0283	3.3722	0.0214	3.3936	0.9023	0.02	0.9223	0	2,768.81	2,768.81	0.1265	0	2,771.97
Waste						0	0		0	0	36.3252	0	36.3252	2.1468	0	89.9942
Water						0	0		0	0	4.4665	9.0864	13.5528	0.0166	9.97E-03	16.9404
Total	**2.2199**	**2.0595**	**10.2962**	**0.0284**	**3.3722**	**0.0229**	**3.3952**	**0.9023**	**0.0216**	**0.9238**	**40.7917**	**2,799.47**	**2,840.26**	**2.2904**	**0.0104**	**2,900.61**

	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**	**6.16**	**6.08**	**1.10**	**33.57**	**6.02**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	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
	tons/yr										MT/yr					

Mitigated	1.4364	2.0396	10.2711	0.0283	3.3722	0.0214	3.3936	0.9023	0.0200	0.9223	0.0000	2,768.8120	2,768.8120	0.1265	0.0000	2,771.9749
Unmitigated	1.4364	2.0396	10.2711	0.0283	3.3722	0.0214	3.3936	0.9023	0.0200	0.9223	0.0000	2,768.8120	2,768.8120	0.1265	0.0000	2,771.9749

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	6,433.73	6,103.10	2965.48	9,072,388	9,072,388
Total	6,433.73	6,103.10	2,965.48	9,072,388	9,072,388

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728
Strip Mall	0.595423	0.053963	0.171400	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.004780	0.000900	0.000728

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	183.7290	183.7290	0.0254	5.2500e-003	185.9277
NaturalGas Mitigated	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824
NaturalGas Unmitigated	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824

5.2 Energy by Land Use - NaturalGas

Unmitigated

	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
Strip Mall	403912	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824
Total		**2.1800e-003**	**0.0198**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.5543**	**21.5543**	**4.1000e-004**	**4.0000e-004**	**21.6824**

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
Strip Mall	403912	2.1800e-003	0.0198	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.5543	21.5543	4.1000e-004	4.0000e-004	21.6824
Total		**2.1800e-003**	**0.0198**	**0.0166**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.5543**	**21.5543**	**4.1000e-004**	**4.0000e-004**	**21.6824**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	106960	10.1884	1.4100e-003	2.9000e-004	10.3103
Strip Mall	1.82186e+006	173.5406	0.0240	4.9600e-003	175.6173
Total		**183.7290**	**0.0254**	**5.2500e-003**	**185.9277**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.7814	8.0000e-005	8.5400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Unmitigated	0.7814	8.0000e-005	8.5400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178

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	0.0952					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.8000e-004	8.0000e-005	8.5400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Total	**0.7814**	**8.0000e-005**	**8.5400e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**4.0000e-005**	**0.0000**	**0.0178**

Mitigated

	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	0.0952					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6854					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.8000e-004	8.0000e-005	8.5400e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0167	0.0167	4.0000e-005	0.0000	0.0178
Total	**0.7814**	**8.0000e-005**	**8.5400e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**4.0000e-005**	**0.0000**	**0.0178**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.5528	0.0166	9.9700e-003	16.9404
Unmitigated	13.5528	0.0166	9.9700e-003	16.9404

7.2 Water by Land Use

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
Strip Mall	12.6242 / 7.7374	13.5528	0.0166	9.9700e-003	16.9404
Total		**13.5528**	**0.0166**	**9.9700e-003**	**16.9404**

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
Strip Mall	12.6242 / 7.7374	13.5528	0.0166	9.9700e-003	16.9404
Total		**13.5528**	**0.0166**	**9.9700e-003**	**16.9404**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	36.3252	2.1468	0.0000	89.9942
Unmitigated	36.3252	2.1468	0.0000	89.9942

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
Strip Mall	178.95	36.3252	2.1468	0.0000	89.9942
Total		**36.3252**	**2.1468**	**0.0000**	**89.9942**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	178.95	36.3252	2.1468	0.0000	89.9942
Total		**36.3252**	**2.1468**	**0.0000**	**89.9942**

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

11.0 Vegetation

Attachment 3: EMFAC2017 Emissions and CARB SAFE Off-Model Adjustment Factors

Project **Cambrian Park Plaza** **CalEEMod Construction Inputs**

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	60		2,700	-	3,053	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	29,160	-	61,060
Site Preparation	33		2,772	-		10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	29,938	-	-
Grading	55		6,270	-	50,000	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	67,716	-	1,000,000
Trenching/Foundation	20		2,760	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	29,808	-	-
Building Construction	890	254	231,400	66,040	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2,499,120	482,092	-
Architectural Coating	178		46,280	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	499,824	-	-
Paving	28		1,960	-	-	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT			

Number of Days Per Year					
2021	8/15/2021	12/31/21	139	**100**	
2022	1/1/22	12/31/22	365	**260**	
2023	1/1/23	11/6/2023	310	**221**	
			814	**581**	***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	8/15/2021	10/15/2021	5	45
Site Preparation	10/1/2021	1/26/2020	5	84
Grading	2/1/2022	7/8/2022	5	114
Trenching/Foundation	5/1/2022	11/9/2022	5	138
Building Construction	8/1/2022	7/28/2022	5	260
Architectural Coating	10/1/2022	9/30/2023	5	260
Paving	8/1/2023	11/6/2023	5	70

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	170,611.76	4,784,116.83	1,016,755.53	15,653.30	317,256.94	166,978.85	484,235.79	47,737.09	99,053.08	146,790.17	1,704,564,168
Vendor	99,869.80	2,125,488.95	611,037.60	6,716.17	144,145.51	87,150.95	231,296.46	21,689.32	52,102.59	73,791.91	722,902,942
Worker	275,736.78	248,708.16	3,100,669.22	8,435.87	943,514.11	146,601.49	1,090,115.60	141,968.90	60,974.85	202,943.75	895,565,820
Total (g)	546,218.34	7,158,313.95	4,728,462.35	30,805.33	1,404,916.56	400,731.28	1,805,647.85	211,395.30	212,130.51	423,525.82	3,323,032,930
Total (lbs)	1,204.21	15,781.38	10,424.48	67.91	3,097.31	883.46	3,980.77	466.05	467.67	933.71	7,326,034
Total (tons)	0.60	7.89	5.21	0.03	1.55	0.44	1.99	0.23	0.23	0.47	3,663
Total (MT)											3,323

YEAR						*Tons*					
2021	0.1028	1.3474	0.8901	0.0058	0.2645	0.0754	0.3399	0.0398	0.0399	0.0797	567.4467

		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX
Category																			
Hauling	HHDT	100.0	1	4.16173E-06	0.000184922	0.434467644	2.29522E-06	0.13900353	0.00114182	2.55505E-06	5.9660776	4.11760691	1.857963365	5.630239	0.67643733	0.0059162	0.01013772	0.014245597	5.51426E-07
	MHD	0.0	0	0.000487808	0.021812603	0.021034603	0.000236584	0.19015319	0.12779685	0.052960704	0.6687192	2.890356527	1.169875105	0.370014	0.75814415	1.203259	0.00073142	0.011054821	9.01407E-05
Vendor	HHDT	61.9	0.61874	2.57503E-06	0.000114418	0.268822304	1.42015E-06	0.08600698	0.00070649	1.58091E-06	3.691448	2.547726142	1.14959537	3.483651	0.41853851	0.0036606	0.00627261	0.008814314	3.41189E-07
	MHD	38.1	0.38126	0.000185982	0.008316283	0.008019663	9.02002E-05	0.0724979	0.04872389	0.020191823	0.2549562	1.101978703	0.446027139	0.141072	0.2890504	0.4587551	0.00027886	0.004214766	3.43671E-05
			1	0.000188557	0.008430702	0.276841966	9.16203E-05	0.15850488	0.04943038	0.020193404	3.9464042	3.649704846	1.595622508	3.624723	0.70758891	0.4624157	0.00655147	0.01302908	3.47083E-05
Worker	LDA	71.5	0.71531	0.032356992	0.074537563	0	0.027925009	0.00741584	0.1578651	0.184530222	0	0.031184457	0.14495028	0	0.47490777	1.6391858	0	6.40185E-05	0
	LDT1	6.4	0.0637	0.006312515	0.011963767	0	0.004904484	0.00157907	0.04309569	0.024338938	0	0.006713175	0.017206334	0	0.07593017	0.1604786	0	0.000164506	0
	LDT2	22.1	0.22098	0.01437858	0.029016459	0	0.013334911	0.00366633	0.09718754	0.079849501	0	0.019175669	0.071096765	0	0.20286241	0.6560146	0	0.002442948	1.99197E-05
			1	0.053048088	0.115517789	0	0.046164405	0.01266123	0.29814833	0.28871866	0	0.057073301	0.233253379	0	0.75370035	2.4556789	0	0.002671473	1.99197E-05

		Road Dust PM10	PM10_PMBW	PM10_PMTW	PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PMBW	PM25_PMTW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX
Category											19	22	23	8	9	10
Hauling	HHDT		0.06085	0.035473	0.008566	0.060619	1.05485E-06		0.026078	0.008868	0.0081958	0.0579964	9.699E-07	1088.7861	1552.0308	0.0557231
	MHD	0.299	0.13034	0.012	0.002134	0.074904	0.000122619	0.04499	0.05586	0.003	0.0020414	0.0716576	0.0001127	77.128984	1160.4052	9.1089764
Vendor	HHDT		0.03765	0.021949	0.0053	0.037507	6.5268E-07		0.016136	0.005487	0.0050711	0.0358847	6.001E-07	673.67502	960.30282	0.0344781
	MHD		0.049694	0.004575	0.000814	0.028558	4.67497E-05		0.021297	0.001144	0.0007783	0.0273202	4.298E-05	29.406233	442.41664	3.4728927
		0.299	0.087344	0.026524	0.006114	0.066065	4.74024E-05	0.04499	0.037433	0.006631	0.0058494	0.0632049	4.358E-05	703.08125	1402.7195	3.5073708
Worker	LDA		0.026288	0.005723	0	0.001067	0.00135696		0.011266	0.001431	0	0.0009833	0.0012477	0	184.45167	39.076478
	LDT1		0.002341	0.00051	0	0.000131	0.000163964		0.001003	0.000127	0	0.000121	0.0001508	0	19.529136	4.1945977
	LDT2		0.008121	0.001768	0	0.000329	0.000410964		0.003481	0.000442	0	0.0003031	0.0003779	0	74.292964	16.069943
		0.299	0.03675	0.008	0	0.001528	0.001931888	0.04499	0.01575	0.002	0	0.0014074	0.0017764	0	278.27377	59.341019

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2021	**1.0002**	**1.0001**	**1.0002**	**1.0009**	**1.0005**	**1.0023**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	5.16284452	5.88865E-05	484.6824242	0.0004835	103.2981931	0.001178
	HHDT	DSL	8105.74856	0.092452681	988266.7063	0.9858436	86260.08333	0.983867
	HHDT	NG	336.20087	0.003834645	13706.5448	0.0136729	1311.183392	0.014955
			8447.11227		1002457.933		87674.56491	
	LDA	GAS	715693.333	0.203383812	26189161.18	0.9588129	3369391.829	0.957505
	LDA	DSL	6670.99857	0.001895746	255156.3961	0.0093415	31695.33585	0.009007
	LDA	ELEC	24022.2737	0.006826585	869835.6575	0.0318456	117842.5205	0.033488
			746386.605		27314153.24		3518929.685	
	LDT1	GAS	71628.1516	0.214597814	2413667.723	0.9922854	331256.0399	0.992443
	LDT1	DSL	39.8937445	0.000119522	725.5581592	0.0002983	131.2284046	0.000393
	LDT1	ELEC	483.88067	0.001449706	18039.75638	0.0074163	2391.302869	0.007164
			72151.926		2432433.037		333778.5712	
	LDT2	GAS	246759.88	0.211129747	8311704.136	0.985	1150424.758	0.984313
	LDT2	DSL	1518.21831	0.001299	59025.65402	0.006995	7458.416256	0.006381
	LDT2	ELEC	2166.54623	0.001853714	67548.48679	0.008005	10876.24084	0.009306
			250444.645		8438278.277		1168759.415	
	LHDT1	GAS	16540.6072	0.043541751	571642.7233	0.5826905	246430.4014	0.648707
	LHDT1	DSL	10609.0763	0.027927497	409397.2662	0.4173095	133448.8335	0.351293
			27149.6835	0.071469249	981039.9895		379879.2349	
	LHDT2	GAS	2219.57501	0.025784318	77018.28883	0.324042	33068.36042	0.384148
	LHDT2	DSL	4214.57115	0.048959752	160661.6364	0.675958	53014.00308	0.615852
			6434.14615	0.074744069	237679.9253		86082.3635	
	MCY	GAS	32119.629	1	243796.974	1	68862.74135	1
	MDV	GAS	149542.914	0.210426485	4865312.486	0.9699211	690430.3337	0.971526
	MDV	DSL	3426.38868	0.004821378	128241.968	0.0255656	16726.02912	0.023536
	MDV	ELEC	687.544597	0.000967465	22639.77893	0.0045133	3509.471008	0.004938
			153656.847		5016194.233		710665.8338	
	MH	GAS	2931.22046	7.483637918	26378.99882	0.7351199	293.2392951	0.748663
	MH	DSL	984.446018	2.513368627	9504.940662	0.2648801	98.44460184	0.251337
			3915.66648		35883.93948		391.683897	
	MHDT	GAS	1410.13442	0.011343156	72248.38534	0.1169629	28213.9694	0.226954
	MHDT	DSL	9487.14764	0.076314852	545455.1439	0.8830371	96101.90575	0.773046
			10897.2821		617703.5293		124315.8751	
	OBUS	GAS	502.212708	0.029373467	24696.47411	0.3120598	10048.27186	0.587704
	OBUS	DSL	767.972857	0.044917273	54443.72504	0.6879402	7049.223278	0.412296
			1270.18556		79140.19916		17097.49514	
	SBUS	GAS	235.345624	0.018628358	11037.57349	0.2564261	941.3824964	0.074513
	SBUS	DSL	1013.21374	0.080199106	32006.30897	0.7435739	11692.34604	0.925487
			1248.55936		43043.88246		12633.72854	
	UBUS	GAS	8.41556894	0.003929273	1059.36752	0.0177031	33.66227577	0.015717
	UBUS	DSL	423.065115	0.197531312	46463.11854	0.7764467	1692.260461	0.790125
	UBUS	NG	103.95989	0.048539415	12318.21749	0.2058501	415.8395591	0.194158
			535.440574		59840.70356		2141.762296	

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDL	PM10_STR	PM10_PMT	PM10_PMB	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNE	N2O_IDLEX	N2O_STREX	ROG_RUNE	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNL	ROG_REST	ROG_DIUR	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNL	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2021	HHDT	Aggregate	Aggregate	Gasoline	5.162845	484.6824	103.2982	4.062598	0	0.407731	0.001311	0	0.000823	0.005	0.02646	0.001426	0	0.000895	0.02	0.06174	2025.269	0	47.29512	0.112325	0	0.000414	0.149526	0	0.012575	0.585782	0	0.002169	0.156953	0.96912	0.038977	0.070674	0.854771	0	0.002374	0.156953	0.96912	0.038977	0.070674	32.05552	0	5.02137	0.020042	0	0.000468
Santa Clara	2021	HHDT	Aggregate	Aggregate	Diesel	8105.749	988266.7	86260.08	4.147844	63.6365	1.887942	0.058758	0.087222	0	0.008868	0.026073	0.061415	0.091165	0	0.035473	0.060837	1528.481	11606.57	0	0.006422	0.218177	0	0.240256	1.824391	0	0.138263	4.697294	0	0	0	0	0	0.157402	5.347512	0	0	0	0	0	0.5229	60.00634	0	0.01444	0.109653	0
Santa Clara	2021	HHDT	Aggregate	Aggregate	Natural Ga	336.2009	13706.54	1311.183	1.939434	21.5699	0	0.005088	0.034407	0	0.009	0.02646	0.005318	0.035962	0	0.036	0.06174	3233.282	4101.533	0	3.57235	1.261083	0	0.659126	0.836124	0	0.176593	0.0496	0	0	0	0	0	3.788896	1.323011	0	0	0	0	0	10.63714	21.51231	0	0	0	0
Santa Clara	2021	LDA	Aggregate	Aggregate	Gasoline	715693.3	26189161	3369392	0.044609	0	0.21159	0.001358	0	0.001822	0.002	0.01575	0.001477	0	0.001981	0.008	0.03675	266.3197	0	56.92202	0.002711	0	0.058853	0.004863	0	0.027764	0.010662	0	0.269366	0.108645	0.230465	0.191774	0.221801	0.015551	0	0.294921	0.108645	0.230465	0.191774	0.221801	0.690036	0	2.392069	0.002635	0	0.000563
Santa Clara	2021	LDA	Aggregate	Aggregate	Diesel	6670.999	255156.4	31695.34	0.087271	0	0	0.007648	0	0	0.002	0.01575	0.007994	0	0	0.008	0.03675	205.4073	0	0	0.000708	0	0	0.032287	0	0	0.015244	0	0	0	0	0	0	0.017354	0	0	0	0	0	0	0.210705	0	0	0.001942	0	0
Santa Clara	2021	LDA	Aggregate	Aggregate	Electricity	24022.27	869835.7	117842.5	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	LDT1	Aggregate	Aggregate	Gasoline	71628.15	2413668	331256	0.105802	0	0.272111	0.001862	0	0.002385	0.002	0.01575	0.002025	0	0.002594	0.008	0.03675	308.1227	0	66.19689	0.005661	0	0.076866	0.008066	0	0.03002	0.024911	0	0.384911	0.189186	0.681609	0.358705	0.461608	0.036311	0	0.421425	0.189186	0.681609	0.358705	0.461608	1.200263	0	2.537143	0.003049	0	0.000655
Santa Clara	2021	LDT1	Aggregate	Aggregate	Diesel	39.89374	725.5582	131.2284	1.268412	0	0	0.168474	0	0	0.002	0.01575	0.176091	0	0	0.008	0.03675	413.9966	0	0	0.010139	0	0	0.065074	0	0	0.218297	0	0	0	0	0	0	0.248517	0	0	0	0	0	0	1.237222	0	0	0.003914	0	0
Santa Clara	2021	LDT1	Aggregate	Aggregate	Electricity	483.8807	18039.76	2391.303	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	LDT2	Aggregate	Aggregate	Gasoline	246759.9	8311704	1150425	0.087782	0	0.326789	0.001356	0	0.001737	0.002	0.01575	0.001475	0	0.001889	0.008	0.03675	338.518	0	73.70907	0.004072	0	0.077467	0.007118	0	0.035187	0.01674	0	0.36702	0.133338	0.446757	0.285742	0.307995	0.024414	0	0.40184	0.133338	0.446757	0.285742	0.307995	0.930639	0	3.014399	0.00335	0	0.000729
Santa Clara	2021	LDT2	Aggregate	Aggregate	Diesel	1518.218	59025.65	7458.416	0.041668	0	0	0.004904	0	0	0.002	0.01575	0.005126	0	0	0.008	0.03675	282.8504	0	0	0.000657	0	0	0.04446	0	0	0.01415	0	0	0	0	0	0	0.016109	0	0	0	0	0	0	0.12212	0	0	0.002674	0	0
Santa Clara	2021	LDT2	Aggregate	Aggregate	Electricity	2166.546	67548.49	10876.24	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	LHDT1	Aggregate	Aggregate	Gasoline	16540.61	571642.7	246430.4	0.262338	0.03949	0.549198	0.002191	0	0.000401	0.002	0.03276	0.002383	0	0.000436	0.008	0.07644	1017.255	122.0379	19.14342	0.012124	0.123606	0.02716	0.015765	0.003154	0.042297	0.059375	0.45228	0.137987	0.130258	0.89758	0.02599	0.052227	0.08664	0.659966	0.151079	0.130258	0.89758	0.02599	0.052227	1.086844	3.748723	1.811769	0.010067	0.001208	0.000189
Santa Clara	2021	LHDT1	Aggregate	Aggregate	Diesel	10609.08	409397.3	133448.8	1.862203	2.152154	0	0.023297	0.02704	0	0.003	0.03276	0.02435	0.028263	0	0.012	0.07644	552.5074	134.745	0	0.007585	0.005098	0	0.086846	0.02118	0	0.163311	0.10976	0	0	0	0	0	0.185919	0.124954	0	0	0	0	0	0.686231	0.909745	0	0.005223	0.001274	0
Santa Clara	2021	LHDT2	Aggregate	Aggregate	Gasoline	2219.575	77018.29	33068.36	0.272207	0.039035	0.535592	0.002122	0	0.00036	0.002	0.03822	0.002307	0	0.000392	0.008	0.08918	1160.22	140.2323	21.7453	0.010038	0.122897	0.026292	0.016913	0.003077	0.040901	0.045762	0.447168	0.133103	0.127611	0.884759	0.023996	0.048928	0.066776	0.652507	0.145731	0.127611	0.884759	0.023996	0.048928	0.835401	3.750559	1.839341	0.011481	0.001388	0.000215
Santa Clara	2021	LHDT2	Aggregate	Aggregate	Diesel	4214.571	160661.6	53014	1.542154	2.158821	0	0.022944	0.027219	0	0.003	0.03822	0.023981	0.02845	0	0.012	0.08918	621.5562	215.9968	0	0.007204	0.005098	0	0.0977	0.033952	0	0.155094	0.10976	0	0	0	0	0	0.176564	0.124954	0	0	0	0	0	0.650931	0.909745	0	0.005876	0.002042	0
Santa Clara	2021	MCY	Aggregate	Aggregate	Gasoline	32119.63	239436.8	64239.26	1.15497	0	0.270443	0.001772	0	0.00303	0.001	0.00504	0.001893	0	0.003213	0.004	0.01176	210.3906	0	61.75755	0.33122	0	0.25818	0.066438	0	0.015338	2.253066	0	1.967635	0.716612	2.132348	1.002545	1.822873	2.774349	0	2.14098	0.716612	2.132348	1.002545	1.822873	19.56337	0	8.976601	0.002082	0	0.000611
Santa Clara	2021	MDV	Aggregate	Aggregate	Gasoline	149542.9	4865312	690430.3	0.11839	0	0.410054	0.001476	0	0.002019	0.002	0.01575	0.001604	0	0.002194	0.008	0.03675	409.4409	0	89.81723	0.005494	0	0.095775	0.008922	0	0.03884	0.024634	0	0.48393	0.15482	0.49034	0.340146	0.361645	0.034949	0	0.529797	0.15482	0.49034	0.340146	0.361645	1.127252	0	3.59329	0.004052	0	0.000889
Santa Clara	2021	MDV	Aggregate	Aggregate	Diesel	3426.389	128242	16726.03	0.044109	0	0	0.004602	0	0	0.002	0.01575	0.00481	0	0	0.008	0.03675	370.3019	0	0	0.000514	0	0	0.058206	0	0	0.011068	0	0	0	0	0	0	0.0126	0	0	0	0	0	0	0.188966	0	0	0.003501	0	0
Santa Clara	2021	MDV	Aggregate	Aggregate	Electricity	687.5446	22639.78	3509.471	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2021	MH	Aggregate	Aggregate	Gasoline	2931.22	26379	293.2393	0.474084	0	0.332292	0.001724	0	0.000381	0.003	0.05586	0.001875	0	0.000414	0.012	0.13034	1782.907	0	26.40751	0.017557	0	0.033119	0.028008	0	0.03399	0.078746	0	0.143103	0.096257	2.347589	0.039223	0.115979	0.114906	0	0.15668	0.096257	2.347589	0.039223	0.115979	2.065959	0	3.165436	0.017643	0	0.000261
Santa Clara	2021	MH	Aggregate	Aggregate	Diesel	984.446	9504.941	98.4446	4.382014	0	0	0.092722	0	0	0.004	0.05586	0.096914	0	0	0.016	0.13034	1031.304	0	0	0.005198	0	0	0.162107	0	0	0.111901	0	0	0	0	0	0	0.127391	0	0	0	0	0	0	0.400207	0	0	0.00975	0	0
Santa Clara	2021	MHDT	Aggregate	Aggregate	Gasoline	1410.134	72248.39	28213.97	0.591018	0.088168	0.389628	0.001358	0	0.000497	0.003	0.05586	0.001477	0	0.00054	0.012	0.13034	1752.404	539.4334	40.1358	0.018696	0.257865	0.042095	0.027833	0.0072	0.028931	0.092815	1.007984	0.233354	0.09611	0.563096	0.020857	0.043005	0.135436	1.470848	0.255494	0.09611	0.563096	0.020857	0.043005	2.155492	15.06152	5.301778	0.017341	0.005338	0.000397
Santa Clara	2021	MHDT	Aggregate	Aggregate	Diesel	9487.148	545455.1	96101.91	3.194916	8.74953	1.398943	0.080969	0.02675	0	0.003	0.05586	0.08463	0.02796	0	0.012	0.13034	1081.992	930.4887	0	0.009431	0.005843	0	0.170074	0.14626	0	0.203046	0.125806	0	0	0	0	0	0.231153	0.143221	0	0	0	0	0	0.573058	2.609835	0	0.010222	0.008791	0
Santa Clara	2021	OBUS	Aggregate	Aggregate	Gasoline	502.2127	24696.47	10048.27	0.501682	0.065104	0.329488	0.000916	0	0.000212	0.003	0.05586	0.000996	0	0.00023	0.012	0.13034	1793.018	381.4064	26.74037	0.014791	0.200187	0.030949	0.025044	0.005583	0.026445	0.070359	0.746923	0.159737	0.026848	0.294072	0.016083	0.036997	0.102667	1.089908	0.174892	0.026848	0.294072	0.016083	0.036997	1.576822	5.778528	3.351004	0.017743	0.003774	0.000265
Santa Clara	2021	OBUS	Aggregate	Aggregate	Diesel	767.9729	54443.73	7049.223	2.779706	13.63199	1.84	0.044765	0.045778	0	0.003	0.05586	0.046789	0.047848	0	0.012	0.13034	1202.163	1945.083	0	0.005321	0.035079	0	0.188963	0.30574	0	0.114561	0.755235	0	0	0	0	0	0.130419	0.859777	0	0	0	0	0	0.397353	8.822131	0	0.011357	0.018376	0
Santa Clara	2021	SBUS	Aggregate	Aggregate	Gasoline	235.3456	11037.57	941.3825	0.448701	0.923977	0.560273	0.001205	0	0.000494	0.002	0.3192	0.001311	0	0.000537	0.008	0.7448	872.735	2601.946	49.24562	0.012804	2.443216	0.058897	0.025163	0.088108	0.05292	0.063019	10.60409	0.336056	0.060254	0.423958	0.009983	0.025	0.091957	15.47346	0.367939	0.060254	0.423958	0.009983	0.025	1.371308	82.01386	8.8054	0.008636	0.025748	0.000487
Santa Clara	2021	SBUS	Aggregate	Aggregate	Diesel	1013.214	32006.31	11692.35	6.970742	45.79682	0.74176	0.043352	0.053733	0	0.003	0.3192	0.045313	0.056163	0	0.012	0.7448	1153.149	3727.733	0	0.004763	0.013307	0	0.181259	0.585948	0	0.102551	0.286497	0	0	0	0	0	0.116746	0.326154	0	0	0	0	0	0.279558	5.707206	0	0.010894	0.035218	0
Santa Clara	2021	UBUS	Aggregate	Aggregate	Gasoline	8.415569	1059.368	33.66228	0.456042	0	1.173674	0.000327	0	9.66E-05	0.003	0.05586	0.000355	0	0.000105	0.012	0.13034	2351.957	0	104.4673	0.006811	0	0.169572	0.0345	0	0.088962	0.022728	0	0.727258	0.171351	1.189018	0.028073	0.044636	0.033164	0	0.796256	0.171351	1.189018	0.028073	0.044636	0.499495	0	8.852622	0.023275	0	0.001034
Santa Clara	2021	UBUS	Aggregate	Aggregate	Diesel	423.0651	46463.12	1692.26	0.803452	0	0	0.005651	0	0	0.008415	0.029326	0.005907	0	0	0.03366	0.068427	1481.161	0	0	0.077358	0	0	0.232818	0	0	0.001105	0	0	0	0	0	0	0.078949	0	0	0	0	0	0	0.131304	0	0	0.014002	0	0
Santa Clara	2021	UBUS	Aggregate	Aggregate	Natural Ga	103.9599	12318.22	415.8396	0.489341	0	0	0.003183	0	0	0.008475	0.029034	0.003327	0	0	0.033899	0.067745	2016.304	0	0	6.413624	0	0	0.411037	0	0	0.091638	0	0	0	0	0	0	6.545574	0	0	0	0	0	0	49.80412	0	0	0	0	0

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	113,317.82	4,147,768.91	872,546.54	15,244.84	317,256.94	139,624.38	456,881.32	47,737.09	72,847.50	120,584.59	1,661,560,901
Vendor	65,220.67	1,802,407.59	527,820.12	6,558.62	144,145.51	72,256.10	216,401.61	21,689.32	37,859.99	59,549.31	706,327,328
Worker	254,157.25	219,769.80	2,873,872.48	8,181.27	943,514.11	146,346.90	1,089,861.01	141,968.90	60,740.03	202,708.92	871,716,210
Total (g)	432,695.74	6,169,946.30	4,274,239.13	29,984.73	1,404,916.56	358,227.38	1,763,143.94	211,395.30	171,447.52	382,842.82	3,239,604,440
Total (lbs)	953.93	13,602.40	9,423.08	66.11	3,097.31	789.76	3,887.07	466.05	377.98	844.02	7,142,105
Total (tons)	0.48	6.80	4.71	0.03	1.55	0.39	1.94	0.23	0.19	0.42	3,571
Total (MT)											3,240

YEAR						*Tons*					
2022	0.2139	3.0497	2.1127	0.0148	0.6944	0.1771	0.8715	0.1045	0.0847	0.1892	1452.6482

		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX
Category										
Hauling	HHDT	100.0	1	3.39912E-06	0.000152206	0.429371666	1.88626E-06	0.08527405	0.00092348	2.55882E-06
	MHD	0.0	0	0.00044818	0.02058451	0.019512587	0.000221882	0.09170637	0.11899793	0.05147655
Vendor	HHDT	62.1	0.62055	2.10934E-06	9.44524E-05	0.266448661	1.17053E-06	0.05291722	0.00057307	1.58789E-06
	MHD	37.9	0.37945	0.00017006	0.007810693	0.007403957	8.41922E-05	0.03479754	0.04515319	0.019532528
			1	0.000172169	0.007905145	0.273852618	8.53627E-05	0.08771476	0.04572626	0.019534116
Worker	LDA	71.7	0.71721	0.029679934	0.069287896	0	0.025948717	0.00627875	0.15142537	0.167118784
	LDT1	6.4	0.06398	0.005759375	0.011009833	0	0.004555719	0.00134912	0.03986886	0.02186246
	LDT2	21.9	0.21881	0.013816282	0.027554601	0	0.012979481	0.00322961	0.09379893	0.072917494
			1	0.049255591	0.107852329	0	0.043483917	0.01085748	0.28509316	0.261898738

		NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX
Category										
Hauling	HHDT	5.9173485	3.510881156	2.046637573	5.939213	0.52508074	0.0058678	0.01029663	0.013852696	5.15679E-07
	MHD	0.5645581	2.060753772	1.380182496	0.373927	0.48464994	1.1601125	0.00071898	0.010780743	9.08684E-05
Vendor	HHDT	3.6720392	2.178694258	1.270050831	3.685607	0.32584139	0.0036413	0.00638963	0.008596358	3.20007E-07
	MHD	0.2142188	0.781943066	0.523703582	0.141885	0.18389808	0.4401991	0.00027281	0.004090701	3.44796E-05
		3.8862581	2.960637324	1.793754413	3.827492	0.50973947	0.4438404	0.00666244	0.012687058	3.47996E-05
Worker	LDA	0	0.027062697	0.135235315	0	0.43554167	1.5959914	0	6.55844E-05	0
	LDT1	0	0.005796546	0.015933435	0	0.06778579	0.155553	0	0.000166314	0
	LDT2	0	0.016689277	0.064428442	0	0.18550531	0.628991	0	0.002358898	1.98826E-05
		0	0.04954852	0.215597193	0	0.68883278	2.3805355	0	0.002590796	1.98826E-05

		Road Dust PM10	PM10_PMBW	PM10_PMTW	PM10_IDLEX	PM10_RUNEX	PM10_STREX
Category							
Hauling	HHDT		0.060884	0.035493	0.003362	0.035044	9.00263E-07
	MHD	0.299	0.13034	0.012	0.001235	0.03679	0.000119776
Vendor	HHDT		0.037782	0.022025	0.002086	0.021747	5.58663E-07
	MHD		0.049457	0.004553	0.000468	0.01396	4.54485E-05
		0.299	0.087239	0.026579	0.002555	0.035706	4.60072E-05
Worker	LDA		0.026358	0.005738	0	0.001019	0.001303368
	LDT1		0.002351	0.000512	0	0.000122	0.000153462
	LDT2		0.008041	0.00175	0	0.000314	0.000393391
		0.299	0.03675	0.008	0	0.001455	0.001850221

		Road Dust PM25	PM25_PMBW	PM25_PMTW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX
Category					19	22	23	8	9	10
Hauling	HHDT		0.026093	0.008873	0.0032166	0.033528	8.278E-07	1105.7031	1510.6566	0.0521109
	MHD	0.04499	0.05586	0.003	0.0011811	0.0351917	0.0001101	75.80618	1131.3081	9.182511
Vendor	HHDT		0.016192	0.005506	0.0019961	0.0208059	5.137E-07	686.14938	937.44524	0.0323377
	MHD		0.021196	0.001138	0.0004482	0.0133533	4.179E-05	28.764289	429.2694	3.4842594
		0.04499	0.037388	0.006645	0.0024442	0.0341593	4.23E-05	714.91367	1366.7146	3.5165971
Worker	LDA		0.011296	0.001434	0	0.0009386	0.0011984	0	180.32718	38.214126
	LDT1		0.001008	0.000128	0	0.0001121	0.0001411	0	19.165858	4.1143018
	LDT2		0.003446	0.000438	0	0.0002892	0.0003617	0	71.368997	15.443923
		0.04499	0.01575	0.002	0	0.00134	0.0017013	0	270.86204	57.772351

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2022	**1.0004**	**1.0003**	**1.0004**	**1.0018**	**1.0014**	**1.0065**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	4.973172	5.55717E-05	516.9337951	0.000504	99.50322533	0.001112
	HHDT	DSL	8277.46332	0.092494875	1011013.237	0.98563	88031.26312	0.983688
	HHDT	NG	348.790157	0.003897487	14223.1379	0.013866	1360.281611	0.0152
			8631.22665		1025753.309		89491.04796	
	LDA	GAS	733557.695	0.202806099	26455303.53	0.956207	3456648.544	0.955657
	LDA	DSL	7146.66761	0.001975833	268335.1014	0.0096988	33963.02434	0.00939
	LDA	ELEC	25894.6084	0.007159061	943282.8126	0.0340942	126428.0465	0.034953
			766598.971		27666921.44		3617039.615	
	LDT1	GAS	73556.9159	0.213850423	2443329.481	0.9899812	340743.7941	0.990637
	LDT1	DSL	36.8387989	0.000107101	667.9121032	0.0002706	121.0603114	0.000352
	LDT1	ELEC	624.877132	0.001816692	24059.06824	0.0097482	3099.468736	0.009011
			74218.6318		2468056.461		343964.3232	
	LDT2	GAS	250455.374	0.210629786	8295824.493	0.9828491	1167439.23	0.981802
	LDT2	DSL	1663.51269	0.001398993	62652.21286	0.0074227	8136.946529	0.006843
	LDT2	ELEC	2695.96042	0.002267268	82111.52239	0.0097282	13502.43635	0.011355
			254814.847		8440588.228		1189078.613	
	LHDT1	GAS	16536.9032	0.042835608	566343.7683	0.5722898	246375.2176	0.638187
	LHDT1	DSL	11104.4362	0.028763867	423266.3697	0.4277102	139679.8374	0.361813
			27641.3393	0.071599475	989610.138		386055.055	
	LHDT2	GAS	2253.29966	0.025202537	77523.95545	0.3179251	33570.8075	0.37548
	LHDT2	DSL	4438.98491	0.049648825	166319.5005	0.6820749	55836.84587	0.62452
			6692.28456	0.074851361	243843.4559		89407.65337	
	MCY	GAS	32925.3571	1	243796.974	1	68862.74135	1
	MDV	GAS	151961.055	0.209348791	4876240.398	0.9662516	702265.7233	0.967475
	MDV	DSL	3721.22459	0.005126536	135478.7608	0.0268458	18101.22476	0.024937
	MDV	ELEC	1080.16696	0.001488089	34834.40687	0.0069026	5508.057389	0.007588
			156762.446		5046553.566		725875.0054	
	MH	GAS	2891.83477	7.391564061	26265.32654	0.7300457	289.29915	0.739452
	MH	DSL	1019.35336	2.605479314	9712.320006	0.2699543	101.935336	0.260548
			3911.18813		35977.64654		391.2344859	
	MHDT	GAS	1456.11161	0.011737939	75284.47702	0.1200311	29133.88114	0.234853
	MHDT	DSL	9430.02377	0.076016866	551923.8216	0.8799689	94917.84867	0.765147
			10886.1354		627208.2986		124051.7298	
	OBUS	GAS	501.965542	0.02946728	24150.24818	0.3096605	10043.32656	0.589581
	OBUS	DSL	762.396385	0.044755558	53839.186	0.6903395	6991.348292	0.410419
			1264.36193		77989.43418		17034.67485	
	SBUS	GAS	249.313359	0.019631483	11500.83332	0.2645889	997.2534368	0.078526
	SBUS	DSL	1014.08642	0.079851398	31965.9607	0.7354111	11702.41665	0.921474
			1263.39978		43466.79403		12699.67009	
	UBUS	GAS	8.41939574	0.003929273	1059.849245	0.0177031	33.67758298	0.015717
	UBUS	DSL	423.235801	0.197521187	46482.15589	0.7764118	1692.943206	0.790085
	UBUS	NG	104.028857	0.04854954	12325.90971	0.2058851	416.1154282	0.194198
			535.684054		59867.91485		2142.736217	

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STI	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNE	N2O_IDLE	N2O_STRE	ROG_RUNE	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNL	ROG_REST	ROG_DIUR	TOG_RUNE	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNL	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2022	HHDT	Aggregate	Aggregate	Gasoline	4.973172	516.9338	99.50323	3.654204	0	0.338391	0.001236	0	0.000744	0.005	0.02646	0.001344	0	0.00081	0.02	0.06174	1964.961	0	46.86739	0.097725	0	0.00044	0.140899	0	0.010576	0.494672	0	0.002301	0.136891	0.830556	0.033943	0.061166	0.721824	0	0.00252	0.136891	0.830556	0.033943	0.061166	30.00648	0	5.27737	0.019445	0	0.000464
Santa Clara	2022	HHDT	Aggregate	Aggregate	Diesel	8277.463	1011013	88031.26	3.535499	63.08378	2.080194	0.033949	0.03347	0	0.008873	0.026088	0.035484	0.034983	0	0.035494	0.060872	1486.606	11783.13	0	0.003901	0.215524	0	0.233674	1.852143	0	0.08399	4.640183	0	0	0	0	0	0.095616	5.282495	0	0	0	0	0	0.366847	63.30293	0	0.014045	0.111321	0
Santa Clara	2022	HHDT	Aggregate	Aggregate	Natural Ga	348.7902	14223.14	1360.282	1.755776	21.14752	0	0.004789	0.030991	0	0.009	0.02646	0.005006	0.032392	0	0.036	0.06174	3203.692	4060.116	0	3.511574	1.248503	0	0.653093	0.827681	0	0.161697	0.045805	0	0	0	0	0	3.710887	1.306054	0	0	0	0	0	10.70122	21.55662	0	0	0	0
Santa Clara	2022	LDA	Aggregate	Aggregate	Gasoline	733557.7	26455304	3456649	0.03872	0	0.197227	0.001299	0	0.001748	0.002	0.01575	0.001413	0	0.001902	0.008	0.03675	259.2126	0	55.39361	0.002345	0	0.054199	0.004449	0	0.026685	0.009015	0	0.243726	0.100881	0.22086	0.178182	0.20337	0.013151	0	0.266848	0.100881	0.22086	0.178182	0.20337	0.63218	0	2.325265	0.002565	0	0.000548
Santa Clara	2022	LDA	Aggregate	Aggregate	Diesel	7146.668	268335.1	33963.02	0.071556	0	0	0.006579	0	0	0.002	0.01575	0.006877	0	0	0.008	0.03675	200.3149	0	0	0.000626	0	0	0.031487	0	0	0.013485	0	0	0	0	0	0	0.015352	0	0	0	0	0	0	0.198488	0	0	0.001894	0	0
Santa Clara	2022	LDA	Aggregate	Aggregate	Electricity	25894.61	943282.8	126428	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	LDT1	Aggregate	Aggregate	Gasoline	73556.92	2443329	340743.8	0.091156	0	0.251292	0.001724	0	0.002226	0.002	0.01575	0.001875	0	0.002421	0.008	0.03675	300.527	0	64.49485	0.004882	0	0.070027	0.007217	0	0.028775	0.021236	0	0.344801	0.173613	0.628849	0.332831	0.420667	0.030964	0	0.377511	0.173613	0.628849	0.332831	0.420667	1.068397	0	2.450832	0.002974	0	0.000638
Santa Clara	2022	LDT1	Aggregate	Aggregate	Diesel	36.8388	667.9121	121.0603	1.185315	0	0	0.157566	0	0	0.002	0.01575	0.164691	0	0	0.008	0.03675	408.3259	0	0	0.009501	0	0	0.064183	0	0	0.204561	0	0	0	0	0	0	0.232879	0	0	0	0	0	0	1.159574	0	0	0.00386	0	0
Santa Clara	2022	LDT1	Aggregate	Aggregate	Electricity	624.8771	24059.07	3099.469	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	LDT2	Aggregate	Aggregate	Gasoline	250455.4	8295824	1167439	0.077278	0	0.299792	0.001307	0	0.001684	0.002	0.01575	0.001421	0	0.001831	0.008	0.03675	327.6413	0	71.42656	0.003665	0	0.072415	0.006473	0	0.033384	0.014906	0	0.339292	0.128171	0.436499	0.281495	0.299507	0.021744	0	0.371482	0.128171	0.436499	0.281495	0.299507	0.860463	0	2.923834	0.003242	0	0.000707
Santa Clara	2022	LDT2	Aggregate	Aggregate	Diesel	1663.513	62652.21	8136.947	0.039252	0	0	0.004754	0	0	0.002	0.01575	0.004969	0	0	0.008	0.03675	275.5741	0	0	0.000647	0	0	0.043316	0	0	0.013935	0	0	0	0	0	0	0.015864	0	0	0	0	0	0	0.123161	0	0	0.002605	0	0
Santa Clara	2022	LDT2	Aggregate	Aggregate	Electricity	2695.96	82111.52	13502.44	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	LHDT1	Aggregate	Aggregate	Gasoline	16536.9	566343.8	246375.2	0.235238	0.038471	0.530556	0.002161	0	0.000388	0.002	0.03276	0.00235	0	0.000422	0.008	0.07644	1006.569	121.1222	18.98971	0.01086	0.121305	0.025473	0.014262	0.003125	0.041267	0.052874	0.440699	0.129054	0.125369	0.861898	0.025267	0.050121	0.077153	0.643067	0.141298	0.125369	0.861898	0.025267	0.050121	0.97349	3.751848	1.764958	0.009961	0.001199	0.000188
Santa Clara	2022	LHDT1	Aggregate	Aggregate	Diesel	11104.44	423266.4	139679.8	1.613919	2.033114	0	0.021273	0.026869	0	0.003	0.03276	0.022235	0.028084	0	0.012	0.07644	544.3042	133.047	0	0.007318	0.005098	0	0.085557	0.020913	0	0.157544	0.10976	0	0	0	0	0	0.179353	0.124954	0	0	0	0	0	0.661457	0.909745	0	0.005146	0.001258	0
Santa Clara	2022	LHDT2	Aggregate	Aggregate	Gasoline	2253.3	77523.96	33570.81	0.240034	0.037891	0.516259	0.002078	0	0.000346	0.002	0.03822	0.00226	0	0.000377	0.008	0.08918	1147.291	139.0737	21.54397	0.008737	0.120275	0.024583	0.015135	0.003045	0.039911	0.039365	0.434196	0.123837	0.121118	0.819863	0.023133	0.046225	0.057441	0.633578	0.135586	0.121118	0.819863	0.023133	0.046225	0.722025	3.75488	1.776904	0.011353	0.001376	0.000213
Santa Clara	2022	LHDT2	Aggregate	Aggregate	Diesel	4438.985	166319.5	55836.85	1.346918	2.041795	0	0.021771	0.027131	0	0.003	0.03822	0.022756	0.028358	0	0.012	0.08918	612.5422	213.4891	0	0.007003	0.005098	0	0.096283	0.033558	0	0.150761	0.10976	0	0	0	0	0	0.171631	0.124954	0	0	0	0	0	0.634383	0.909745	0	0.005791	0.002018	0
Santa Clara	2022	MCY	Aggregate	Aggregate	Gasoline	32925.36	241011	65850.71	1.151611	0	0.270649	0.001812	0	0.002978	0.001	0.00504	0.001937	0	0.003161	0.004	0.01176	210.2729	0	61.39967	0.328946	0	0.256691	0.06628	0	0.015352	2.228751	0	1.954835	0.704215	2.060677	0.995009	1.817765	2.753726	0	2.127328	0.704215	2.060677	0.995009	1.817765	19.18808	0	9.0045	0.002081	0	0.000608
Santa Clara	2022	MDV	Aggregate	Aggregate	Gasoline	151961.1	4876240	702265.7	0.099589	0	0.371177	0.001397	0	0.001912	0.002	0.01575	0.001519	0	0.002079	0.008	0.03675	396.236	0	86.90417	0.004621	0	0.087878	0.007887	0	0.036541	0.019446	0	0.437645	0.147462	0.472734	0.331376	0.347901	0.028322	0	0.479161	0.147462	0.472734	0.331376	0.347901	0.980018	0	3.406111	0.003921	0	0.00086
Santa Clara	2022	MDV	Aggregate	Aggregate	Diesel	3721.225	135478.8	18101.22	0.038775	0	0	0.004203	0	0	0.002	0.01575	0.004393	0	0	0.008	0.03675	360.3121	0	0	0.000478	0	0	0.056636	0	0	0.010285	0	0	0	0	0	0	0.011709	0	0	0	0	0	0	0.184421	0	0	0.003406	0	0
Santa Clara	2022	MDV	Aggregate	Aggregate	Electricity	1080.167	34834.41	5508.057	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2022	MH	Aggregate	Aggregate	Gasoline	2891.835	26265.33	289.2991	0.413359	0	0.334516	0.001633	0	0.000362	0.003	0.05586	0.001776	0	0.000394	0.012	0.13034	1756.095	0	25.97914	0.015124	0	0.032419	0.025426	0	0.034963	0.066433	0	0.137518	0.088945	2.156488	0.036513	0.106238	0.096939	0	0.150564	0.088945	2.156488	0.036513	0.106238	1.697423	0	3.037213	0.017378	0	0.000257
Santa Clara	2022	MH	Aggregate	Aggregate	Diesel	1019.353	9712.32	101.9353	4.184918	0	0	0.085576	0	0	0.004	0.05586	0.089445	0	0	0.016	0.13034	1018.587	0	0	0.005027	0	0	0.160108	0	0	0.108225	0	0	0	0	0	0	0.123206	0	0	0	0	0	0	0.382773	0	0	0.009629	0	0
Santa Clara	2022	MHDT	Aggregate	Aggregate	Gasoline	1456.112	75284.48	29133.88	0.474932	0.088412	0.377896	0.001319	0	0.000469	0.003	0.05586	0.001435	0	0.00051	0.012	0.13034	1722.789	532.6547	39.09903	0.014881	0.262553	0.04023	0.023376	0.007484	0.029181	0.072945	1.011617	0.219187	0.087649	0.506692	0.018903	0.038182	0.106442	1.47615	0.239982	0.087649	0.506692	0.018903	0.038182	1.680953	15.10368	4.939745	0.017048	0.005271	0.000387
Santa Clara	2022	MHDT	Aggregate	Aggregate	Diesel	9430.024	551923.8	94917.85	2.277066	7.413096	1.687822	0.039812	0.015538	0	0.003	0.05586	0.041612	0.01624	0	0.012	0.13034	1050.628	914.98	0	0.004378	0.004667	0	0.165144	0.143822	0	0.094265	0.100481	0	0	0	0	0	0.107314	0.11439	0	0	0	0	0	0.32147	2.58681	0	0.009926	0.008644	0
Santa Clara	2022	OBUS	Aggregate	Aggregate	Gasoline	501.9655	24150.25	10043.33	0.443255	0.065137	0.32561	0.000952	0	0.000213	0.003	0.05586	0.001035	0	0.000232	0.012	0.13034	1767.375	377.9272	26.38965	0.013022	0.200837	0.030332	0.022732	0.005646	0.026387	0.061436	0.747416	0.156088	0.026802	0.295531	0.015889	0.036065	0.089647	1.090627	0.170897	0.026802	0.295531	0.015889	0.036065	1.365657	5.781487	3.261978	0.01749	0.00374	0.000261
Santa Clara	2022	OBUS	Aggregate	Aggregate	Diesel	762.3964	53839.19	6991.348	2.314382	10.4182	2.005848	0.021086	0.015288	0	0.003	0.05586	0.02204	0.015979	0	0.012	0.13034	1185.916	1892.098	0	0.002538	0.027964	0	0.18641	0.297411	0	0.054653	0.602048	0	0	0	0	0	0.062218	0.685386	0	0	0	0	0	0.239321	8.657847	0	0.011204	0.017876	0
Santa Clara	2022	SBUS	Aggregate	Aggregate	Gasoline	249.3134	11500.83	997.2534	0.430325	0.924415	0.566946	0.001196	0	0.000498	0.002	0.3192	0.001301	0	0.000541	0.008	0.7448	865.5448	2582.545	48.67377	0.011856	2.442701	0.058309	0.024366	0.088243	0.053528	0.058325	10.61061	0.332747	0.061157	0.415506	0.010413	0.025261	0.085108	15.48298	0.364316	0.061157	0.415506	0.010413	0.025261	1.259002	82.05319	8.624782	0.008565	0.025556	0.000482
Santa Clara	2022	SBUS	Aggregate	Aggregate	Diesel	1014.086	31965.96	11702.42	6.765334	45.00081	0.786274	0.042018	0.05033	0	0.003	0.3192	0.043917	0.052605	0	0.012	0.7448	1145.085	3716.49	0	0.004669	0.013069	0	0.179991	0.584181	0	0.100532	0.281366	0	0	0	0	0	0.114448	0.320314	0	0	0	0	0	0.27746	5.867721	0	0.010818	0.035112	0
Santa Clara	2022	UBUS	Aggregate	Aggregate	Gasoline	8.419396	1059.849	33.67758	0.491737	0	1.236285	0.000328	0	9.7E-05	0.003	0.05586	0.000356	0	0.000105	0.012	0.13034	2351.817	0	104.599	0.006789	0	0.178596	0.036386	0	0.091633	0.022728	0	0.768536	0.190076	1.35875	0.031079	0.049249	0.033164	0	0.84145	0.190076	1.35875	0.031079	0.049249	0.527722	0	8.852622	0.023273	0	0.001035
Santa Clara	2022	UBUS	Aggregate	Aggregate	Diesel	423.2358	46482.16	1692.943	0.803453	0	0	0.005651	0	0	0.008415	0.029326	0.005907	0	0	0.033661	0.068427	1481.178	0	0	0.077358	0	0	0.232821	0	0	0.001105	0	0	0	0	0	0	0.078949	0	0	0	0	0	0	0.131304	0	0	0.014002	0	0
Santa Clara	2022	UBUS	Aggregate	Aggregate	Natural Ga	104.0289	12325.91	416.1154	0.48934	0	0	0.003183	0	0	0.008475	0.029034	0.003327	0	0	0.033899	0.067746	2016.3	0	0	6.413607	0	0	0.411036	0	0	0.091638	0	0	0	0	0	0	6.545556	0	0	0	0	0	0	49.80397	0	0	0	0	0

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
					Grams						
Hauling	50,128.05	3,256,305.14	756,649.26	14,482.69	317,256.94	128,639.41	445,896.35	47,737.09	62,303.13	110,040.22	1,580,923,517
Vendor	33,518.90	1,439,151.07	465,151.83	6,273.98	144,145.51	63,640.48	207,785.98	21,689.32	29,623.56	51,312.88	676,241,835
Worker	235,464.52	195,802.12	2,684,702.70	7,887.65	943,514.11	146,117.80	1,089,631.92	141,968.90	60,528.62	202,497.52	849,114,439
Total (g)	319,111.47	4,891,258.33	3,906,503.80	28,644.32	1,404,916.56	338,397.69	1,743,314.25	211,395.30	152,455.32	363,850.62	3,106,279,792
Total (lbs)	703.52	10,783.38	8,612.37	63.15	3,097.31	746.04	3,843.35	466.05	336.11	802.15	6,848,175
Total (tons)	0.35	5.39	4.31	0.03	1.55	0.37	1.92	0.23	0.17	0.40	3,424
Total (MT)											3,106

YEAR						*Tons*					
2023	0.1363	2.0899	1.6691	0.0122	0.6003	0.1446	0.7449	0.0903	0.0651	0.1555	1204.0137

Category		Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX
Hauling	HHDT	100.0	1	2.53874E-06	0.00011586	0.428946297	1.40536E-06	0.02576025	0.0005936	2.56712E-06
	MHD	0.0	0	0.000416758	0.019674477	0.018316083	0.000210691	0.01707099	0.11201874	0.050852602
Vendor	HHDT	62.2	0.62224	1.57969E-06	7.20921E-05	0.266905884	8.74466E-07	0.01602896	0.00036936	1.59735E-06
	MHD	37.8	0.37776	0.000157436	0.007432307	0.006919154	7.95914E-05	0.0064488	0.04231663	0.019210276
			1	0.000159016	0.007504399	0.273825038	8.04658E-05	0.02247776	0.04268599	0.019211873
Worker	LDA	71.9	0.71896	0.027380942	0.064750152	0	0.024204142	0.00536307	0.14583291	0.151957547
	LDT1	6.4	0.06425	0.005267635	0.010153724	0	0.004238065	0.00115119	0.03711994	0.019666733
	LDT2	21.7	0.21678	0.013286385	0.026191042	0	0.012625971	0.00284977	0.09071986	0.066660319
			1	0.045934962	0.101094918	0	0.041068178	0.00936404	0.27367271	0.238284599

Category		NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust PM10	PM10_PMBW	PM10_PMTW
Hauling	HHDT	5.438234	2.680938629	2.321334599	6.342288	0.39569661	0.0059193	0.0099143	0.013153522	4.87714E-07		0.060919	0.035513
	MHD	0.4315191	1.444055765	1.696525892	0.388783	0.26106305	1.1362253	0.00069591	0.010439183	9.28254E-05	0.299	0.13034	0.012
Vendor	HHDT	3.3838657	1.668176879	1.444418259	3.9464	0.24621673	0.0036832	0.00616903	0.008184597	3.03473E-07		0.037906	0.022097
	MHD	0.1630123	0.545512093	0.640886185	0.146868	0.09862019	0.4292249	0.00026289	0.003943546	3.50661E-05		0.049238	0.004533
		3.546878	2.213688973	2.085304444	4.093269	0.34483691	0.4329081	0.00643192	0.012128143	3.53696E-05	0.299	0.087144	0.026631
Worker	LDA	0	0.023777707	0.126651097	0	0.40410757	1.5533647	0	6.66007E-05	0		0.026422	0.005752
	LDT1	0	0.005016321	0.014794948	0	0.06081036	0.1507512	0	0.000168067	0		0.002361	0.000514
	LDT2	0	0.014606619	0.058622405	0	0.17073258	0.6038367	0	0.002263058	2.01231E-05		0.007967	0.001734
		0	0.043400647	0.200068449	0	0.63565051	2.3079527	0	0.002497725	2.01231E-05	0.299	0.03675	0.008

Category		PM10_IDLEX	PM10_RUNEX	PM10_STREX	Road Dust PM25	PM25_PMBW	PM25_PMTW	PM25_IDLEX	PM25_RUNEX	PM25_STREX	CO2_NBIO_IDLEX	CO2_NBIO_RUNEX	CO2_NBIO_STREX
Category								19	22	23	8	9	10
Hauling	HHDT	0.00267	0.024671	7.19411E-07		0.026108	0.008878	0.0025549	0.0236035	6.615E-07	1065.3765	1436.676	0.0492849
	MHD	0.000427	0.006955	0.000119183	0.04499	0.05586	0.003	0.0004085	0.0066477	0.0001096	73.354013	1095.0648	9.3802733
Vendor	HHDT	0.001662	0.015351	4.47644E-07		0.016246	0.005524	0.0015898	0.0146869	4.116E-07	662.91573	893.95174	0.0306668
	MHD	0.000161	0.002627	4.50232E-05		0.021102	0.001133	0.0001543	0.0025113	4.14E-05	27.710496	413.67593	3.5435283
		0.001823	0.017978	4.54708E-05	0.04499	0.037347	0.006658	0.0017441	0.0171982	4.181E-05	690.62622	1307.6277	3.5741952
Worker	LDA	0	0.000975	0.001254204		0.011324	0.001438	0	0.0008976	0.0011532	0	176.34721	37.39822
	LDT1	0	0.000113	0.000144162		0.001012	0.000129	0	0.0001044	0.0001326	0	18.819901	4.0395556
	LDT2	0	0.000301	0.000378357		0.003414	0.000434	0	0.0002772	0.0003479	0	68.669223	14.86696
		0	0.001389	0.001776724	0.04499	0.01575	0.002	0	0.0012793	0.0016337	0	263.83633	56.304735

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2023	**1.0007**	**1.0006**	**1.0007**	**1.0032**	**1.0027**	**1.0126**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	4.81544789	5.31026E-05	553.4124283	0.0005274	96.34748142	0.001062
	HHDT	DSL	8401.7898	0.092651226	1034051.181	0.9854697	89180.29332	0.983441
	HHDT	NG	360.32457	0.0039735	14693.24691	0.0140029	1405.265825	0.015497
			8766.92982		1049297.84		90681.90662	
	LDA	GAS	751359.646	0.202238765	26739811.21	0.9531327	3542534.481	0.953522
	LDA	DSL	7591.98746	0.002043488	280497.6881	0.0099983	36090.41698	0.009714
	LDA	ELEC	28074.667	0.007556682	1034348.453	0.036869	136585.9223	0.036764
			787026.301		28054657.35		3715210.82	
	LDT1	GAS	75517.84	0.213158377	2475366.781	0.9873152	350250.9794	0.988626
	LDT1	DSL	34.1777023	9.64708E-05	620.5175918	0.0002475	112.4335256	0.000317
	LDT1	ELEC	788.414404	0.002225396	31182.479	0.0124373	3917.009873	0.011056
			76340.4321		2507169.777		354280.4228	
	LDT2	GAS	254167.458	0.210107264	8294772.476	0.9805667	1184411.857	0.979093
	LDT2	DSL	1802.6879	0.00149019	66004.68597	0.0078027	8781.20325	0.007259
	LDT2	ELEC	3304.55481	0.002731707	98384.63719	0.0116305	16510.27624	0.013648
			259274.701		8459161.8		1209703.337	
	LHDT1	GAS	16555.1256	0.042179451	562141.9911	0.5631892	246646.7045	0.628411
	LHDT1	DSL	11594.6392	0.029541033	435998.6325	0.4368108	145845.9755	0.371589
			28149.7649	0.071720484	998140.6235		392492.6801	
	LHDT2	GAS	2285.0183	0.024657728	77947.41477	0.3124285	34043.36796	0.367363
	LHDT2	DSL	4660.72768	0.050294107	171541.415	0.6875715	58626.09097	0.632637
			6945.74597	0.074951835	249488.8298		92669.45893	
	MCY	GAS	33683.4869	1	243796.974	1	68862.74135	1
	MDV	GAS	154431.401	0.20828405	4896062.632	0.9625562	714241.0549	0.963308
	MDV	DSL	4004.42906	0.005400836	142223.8665	0.0279609	19410.39187	0.026179
	MDV	ELEC	1532.63784	0.002067093	48234.63357	0.0094828	7794.674223	0.010513
			159968.467		5086521.132		741446.121	
	MH	GAS	2857.03961	7.303345306	26157.0252	0.7252776	285.8182429	0.730627
	MH	DSL	1053.77777	2.693733356	9907.819006	0.2747224	105.3777766	0.269373
			3910.81738		36064.84421		391.1960196	
	MHDT	GAS	1507.68027	0.012282586	78317.1453	0.1229399	30165.66682	0.24575
	MHDT	DSL	9262.82223	0.07546123	558718.8488	0.8770601	92583.75351	0.75425
			10770.5025		637035.9941		122749.4203	
	OBUS	GAS	503.45719	0.029662155	23697.76723	0.3075551	10073.17146	0.59348
	OBUS	DSL	753.400099	0.044388025	53354.32515	0.6924449	6899.876914	0.40652
			1256.85729		77052.09238		16973.04837	
	SBUS	GAS	263.522939	0.020666756	11968.76865	0.2728641	1054.091756	0.082667
	SBUS	DSL	1013.61385	0.079492548	31894.70309	0.7271359	11696.96329	0.917333
			1277.13679		43863.47173		12751.05504	
	UBUS	GAS	8.42322255	0.003929273	1060.33097	0.0177031	33.69289018	0.015717
	UBUS	DSL	430.528695	0.200833446	46874.38344	0.7826076	1722.114781	0.803334
	UBUS	NG	96.9756167	0.04523728	11960.41172	0.1996892	387.9024668	0.180949
			535.927534		59895.12613		2143.710138	

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STI	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNE	N2O_IDLE	N2O_STRE	ROG_RUNE	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNE	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clar	2023	HHDT	Aggregate	Aggregate	Gasoline	4.815448	553.4124	96.34748	3.178298	0	0.254165	0.001157	0	0.000623	0.005	0.02646	0.001259	0	0.000677	0.02	0.06174	1915.642	0	46.38676	0.084318	0	0.000462	0.130889	0	0.008571	0.409676	0	0.002416	0.109047	0.558691	0.026465	0.047808	0.597798	0	0.002645	0.109047	0.558691	0.026465	0.047808	27.8207	0	5.57125	0.018957	0	0.000459
Santa Clar	2023	HHDT	Aggregate	Aggregate	Diesel	8401.79	1034051	89180.29	2.696198	57.80539	2.360147	0.023887	0.026373	0	0.008879	0.026103	0.024967	0.027565	0	0.035514	0.060907	1411.729	11326.45	0	0.001106	0.214953	0	0.221904	1.78036	0	0.023817	4.627869	0	0	0	0	0	0.027114	5.268477	0	0	0	0	0	0.233741	67.52667	0	0.013337	0.107007	0
Santa Clar	2023	HHDT	Aggregate	Aggregate	Natural Ga	360.3246	14693.25	1405.266	1.588314	20.76108	0	0.004529	0.028055	0	0.009	0.02646	0.004734	0.029323	0	0.036	0.06174	3174.275	4018.428	0	3.456549	1.237751	0	0.647097	0.819183	0	0.148044	0.042416	0	0	0	0	0	3.64007	1.291393	0	0	0	0	0	10.76049	21.60789	0	0	0	0
Santa Clar	2023	LDA	Aggregate	Aggregate	Gasoline	751359.6	26739811	3542534	0.034059	0	0.184615	0.001247	0	0.001682	0.002	0.01575	0.001356	0	0.001829	0.008	0.03675	252.091	0	53.87356	0.002048	0	0.050071	0.004113	0	0.025656	0.007696	0	0.221504	0.094205	0.212597	0.166193	0.187545	0.011228	0	0.242518	0.094205	0.212597	0.166193	0.187545	0.586148	0	2.259775	0.002495	0	0.000533
Santa Clar	2023	LDA	Aggregate	Aggregate	Diesel	7591.987	280497.7	36090.42	0.058679	0	0	0.005598	0	0	0.002	0.01575	0.005851	0	0	0.008	0.03675	195.1926	0	0	0.000552	0	0	0.030682	0	0	0.011887	0	0	0	0	0	0	0.013532	0	0	0	0	0	0	0.188023	0	0	0.001845	0	0
Santa Clar	2023	LDA	Aggregate	Aggregate	Electricity	28074.67	1034348	136585.9	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clar	2023	LDT1	Aggregate	Aggregate	Gasoline	75517.84	2475367	350251	0.078745	0	0.232751	0.001604	0	0.002087	0.002	0.01575	0.001745	0	0.00227	0.008	0.03675	292.8794	0	62.80265	0.004214	0	0.063907	0.006493	0	0.02759	0.018087	0	0.309393	0.159698	0.584022	0.309209	0.384203	0.026384	0	0.338746	0.159698	0.584022	0.309209	0.384203	0.955745	0	2.366858	0.002898	0	0.000621
Santa Clar	2023	LDT1	Aggregate	Aggregate	Diesel	34.1777	620.5176	112.4335	1.098891	0	0	0.146297	0	0	0.002	0.01575	0.152912	0	0	0.008	0.03675	401.6268	0	0	0.008837	0	0	0.06313	0	0	0.190256	0	0	0	0	0	0	0.216594	0	0	0	0	0	0	1.080107	0	0	0.003797	0	0
Santa Clar	2023	LDT1	Aggregate	Aggregate	Electricity	788.4144	31182.48	3917.01	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clar	2023	LDT2	Aggregate	Aggregate	Gasoline	254167.5	8294772	1184412	0.06837	0	0.275999	0.001263	0	0.001639	0.002	0.01575	0.001374	0	0.001783	0.008	0.03675	316.8848	0	69.17216	0.003305	0	0.067695	0.00592	0	0.031692	0.013288	0	0.313842	0.123254	0.427158	0.276975	0.291298	0.019387	0	0.343617	0.123254	0.427158	0.276975	0.291298	0.800025	0	2.837237	0.003136	0	0.000685
Santa Clar	2023	LDT2	Aggregate	Aggregate	Diesel	1802.688	66004.69	8781.203	0.037098	0	0	0.004581	0	0	0.002	0.01575	0.004788	0	0	0.008	0.03675	268.3329	0	0	0.000636	0	0	0.042178	0	0	0.01369	0	0	0	0	0	0	0.015585	0	0	0	0	0	0	0.124122	0	0	0.002537	0	0
Santa Clar	2023	LDT2	Aggregate	Aggregate	Electricity	3304.555	98384.64	16510.28	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clar	2023	LHDT1	Aggregate	Aggregate	Gasoline	16555.13	562142	246646.7	0.210457	0.037398	0.511224	0.002137	0	0.000377	0.002	0.03276	0.002324	0	0.00041	0.008	0.07644	994.5276	120.0678	18.82225	0.009676	0.118805	0.02387	0.012895	0.003089	0.040194	0.046707	0.428491	0.120584	0.120359	0.829144	0.024473	0.047994	0.068155	0.625253	0.132025	0.120359	0.829144	0.024473	0.047994	0.867722	3.754766	1.724	0.009842	0.001188	0.000186
Santa Clar	2023	LHDT1	Aggregate	Aggregate	Diesel	11594.64	435998.6	145846	1.400562	1.919948	0	0.019496	0.026734	0	0.003	0.03276	0.020378	0.027943	0	0.012	0.07644	535.8142	131.265	0	0.007088	0.005098	0	0.084223	0.020633	0	0.152594	0.10976	0	0	0	0	0	0.173718	0.124954	0	0	0	0	0	0.641529	0.909745	0	0.005065	0.001241	0
Santa Clar	2023	LHDT2	Aggregate	Aggregate	Gasoline	2285.018	77947.41	34043.37	0.21093	0.036728	0.496392	0.002042	0	0.000334	0.002	0.03822	0.00222	0	0.000363	0.008	0.08918	1132.921	137.76	21.32176	0.007566	0.117557	0.022949	0.013529	0.00301	0.038884	0.03359	0.420989	0.114958	0.114086	0.752468	0.022171	0.043386	0.049014	0.614306	0.125864	0.114086	0.752468	0.022171	0.043386	0.620201	3.758932	1.718516	0.011211	0.001363	0.000211
Santa Clar	2023	LHDT2	Aggregate	Aggregate	Diesel	4660.728	171541.4	58626.09	1.17888	1.93121	0	0.020832	0.02707	0	0.003	0.03822	0.021774	0.028294	0	0.012	0.08918	603.2432	210.8377	0	0.00683	0.005098	0	0.094821	0.033141	0	0.147052	0.10976	0	0	0	0	0	0.167409	0.124954	0	0	0	0	0	0.621451	0.909745	0	0.005703	0.001993	0
Santa Clar	2023	MCY	Aggregate	Aggregate	Gasoline	33683.49	242470.7	67366.97	1.148719	0	0.270672	0.00184	0	0.002859	0.001	0.00504	0.001969	0	0.003039	0.004	0.01176	210.1672	0	61.03922	0.326994	0	0.255241	0.066143	0	0.01536	2.208057	0	1.941958	0.689105	1.969445	0.985054	1.809555	2.736079	0	2.11358	0.689105	1.969445	0.985054	1.809555	18.86893	0	9.034026	0.00208	0	0.000604
Santa Clar	2023	MDV	Aggregate	Aggregate	Gasoline	154431.4	4896063	714241.1	0.085683	0	0.336488	0.001332	0	0.001823	0.002	0.01575	0.001448	0	0.001982	0.008	0.03675	383.1839	0	84.08131	0.004049	0	0.08064	0.007039	0	0.034344	0.016817	0	0.396565	0.140569	0.457303	0.323766	0.336538	0.024505	0	0.434185	0.140569	0.457303	0.323766	0.336538	0.891357	0	3.240031	0.003792	0	0.000832
Santa Clar	2023	MDV	Aggregate	Aggregate	Diesel	4004.429	142223.9	19410.39	0.034292	0	0	0.003829	0	0	0.002	0.01575	0.004002	0	0	0.008	0.03675	350.448	0	0	0.000445	0	0	0.055086	0	0	0.009578	0	0	0	0	0	0	0.010904	0	0	0	0	0	0	0.180483	0	0	0.003313	0	0
Santa Clar	2023	MDV	Aggregate	Aggregate	Electricity	1532.638	48234.63	7794.674	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clar	2023	MH	Aggregate	Aggregate	Gasoline	2857.04	26157.03	285.8182	0.361451	0	0.336127	0.001555	0	0.000345	0.003	0.05586	0.001691	0	0.000375	0.012	0.13034	1731.827	0	25.56622	0.013045	0	0.031746	0.02323	0	0.035777	0.05596	0	0.132332	0.081683	1.97006	0.033844	0.096831	0.081657	0	0.144887	0.081683	1.97006	0.033844	0.096831	1.390474	0	2.91812	0.017138	0	0.000253
Santa Clar	2023	MH	Aggregate	Aggregate	Diesel	1053.778	9907.819	105.3778	4.0099	0	0	0.079211	0	0	0.004	0.05586	0.082793	0	0	0.016	0.13034	1007.175	0	0	0.004873	0	0	0.158314	0	0	0.104917	0	0	0	0	0	0	0.119441	0	0	0	0	0	0	0.367033	0	0	0.009521	0	0
Santa Clar	2023	MHDT	Aggregate	Aggregate	Gasoline	1507.68	78317.15	30165.67	0.385258	0.088623	0.367592	0.001293	0	0.000446	0.003	0.05586	0.001406	0	0.000485	0.012	0.13034	1697.438	526.34	38.16999	0.011942	0.266499	0.038604	0.019927	0.007724	0.029367	0.057622	1.014767	0.206928	0.080059	0.455824	0.017154	0.033931	0.084081	1.480746	0.22656	0.080059	0.455824	0.017154	0.033931	1.316681	15.14023	4.623501	0.016798	0.005209	0.000378
Santa Clar	2023	MHDT	Aggregate	Aggregate	Diesel	9262.822	558718.8	92583.75	1.59247	5.703996	2.12952	0.007398	0.005414	0	0.003	0.05586	0.007733	0.005658	0	0.012	0.13034	1010.629	886.4048	0	0.000529	0.003602	0	0.158857	0.13933	0	0.011387	0.077551	0	0	0	0	0	0.012963	0.088286	0	0	0	0	0	0.113094	2.687765	0	0.009548	0.008374	0
Santa Clar	2023	OBUS	Aggregate	Aggregate	Gasoline	503.4572	23697.77	10073.17	0.401971	0.065148	0.321785	0.000992	0	0.000219	0.003	0.05586	0.001079	0	0.000239	0.012	0.13034	1743.614	374.6133	26.08015	0.011771	0.201157	0.029667	0.020963	0.005691	0.026276	0.05538	0.74759	0.152323	0.027045	0.299878	0.01619	0.03654	0.080811	1.090882	0.166775	0.027045	0.299878	0.01619	0.03654	1.211154	5.782545	3.193149	0.017254	0.003707	0.000258
Santa Clar	2023	OBUS	Aggregate	Aggregate	Diesel	753.4001	53354.33	6899.877	1.902854	8.28017	2.210652	0.009253	0.002588	0	0.003	0.05586	0.009671	0.002705	0	0.012	0.13034	1163.247	1820.683	0	0.000567	0.024706	0	0.182846	0.286186	0	0.012205	0.531913	0	0	0	0	0	0.013895	0.605542	0	0	0	0	0	0.141032	9.053135	0	0.01099	0.017201	0
Santa Clar	2023	SBUS	Aggregate	Aggregate	Gasoline	263.5229	11968.77	1054.092	0.420713	0.924728	0.578334	0.001201	0	0.000506	0.002	0.3192	0.001307	0	0.00055	0.008	0.7448	859.0893	2565.057	48.16666	0.011122	2.441451	0.057864	0.023879	0.088232	0.054355	0.054742	10.61517	0.330464	0.063152	0.426847	0.010977	0.026004	0.07988	15.48964	0.361817	0.063152	0.426847	0.010977	0.026004	1.167899	82.08092	8.465591	0.008501	0.025383	0.000477
Santa Clar	2023	SBUS	Aggregate	Aggregate	Diesel	1013.614	31894.7	11696.96	6.544978	44.13946	0.832887	0.040645	0.046993	0	0.003	0.3192	0.042483	0.049118	0	0.012	0.7448	1136.76	3703.284	0	0.004568	0.012858	0	0.178683	0.582105	0	0.098352	0.27682	0	0	0	0	0	0.111967	0.315138	0	0	0	0	0	0.275014	6.038953	0	0.01074	0.034987	0
Santa Clar	2023	UBUS	Aggregate	Aggregate	Gasoline	8.423223	1060.331	33.69289	0.150806	0	0.638272	0.002209	0	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.542	0	88.49758	0.007038	0	0.09018	0.015696	0	0.066738	0.022728	0	0.374288	0.008476	0.037646	0.001991	0.00493	0.033164	0	0.409798	0.008476	0.037646	0.001991	0.00493	0.258128	0	8.852622	0.019362	0	0.000876
Santa Clar	2023	UBUS	Aggregate	Aggregate	Diesel	430.5287	46874.38	1722.115	0.802545	0	0	0.005646	0	0	0.008399	0.029403	0.005901	0	0	0.033598	0.068607	1480.062	0	0	0.077245	0	0	0.232645	0	0	0.001104	0	0	0	0	0	0	0.078834	0	0	0	0	0	0	0.131094	0	0	0.013992	0	0
Santa Clar	2023	UBUS	Aggregate	Aggregate	Natural Ga	96.97562	11960.41	387.9025	0.491564	0	0	0.003197	0	0	0.008538	0.028723	0.003341	0	0	0.034153	0.06702	2024.074	0	0	6.451045	0	0	0.412621	0	0	0.092173	0	0	0	0	0	0	6.583765	0	0	0	0	0	0	50.12464	0	0	0	0	0

Project	Cambrian Park Plaza		CalEEMod EMFAC2017 Emission Factors Input									YEAR	2024
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004988	0.003038	0.003579	0.024725094	0.007064	0	0	0.053967	0
A	CH4_RUNEX	0.00172	0.003601	0.002932	0.0034	0.007858	0.006654	0.001694	0.049109234	0.003624	1.349012	0.325313	0.006018	0.009557
A	CH4_STREX	0.044075	0.05761	0.06177	0.070824	0.013865	0.007729	0.009132	4.43811E-07	0.017163	0.001538	0.253919	0.004972	0.02247
A	CO_IDLEX	0	0	0	0	0.18374	0.137239	0.390727	6.332534788	0.580075	0	0	2.273981	0
A	CO_RUNEX	0.525274	0.854913	0.738224	0.784848	0.708735	0.587734	0.232554	0.401352061	0.42749	10.11873	18.59611	0.493783	0.933761
A	CO_STREX	2.091078	2.265361	2.701442	2.959095	1.045963	0.600453	1.069371	0.005942222	1.839982	0.139137	9.061179	0.715904	2.032378
A	CO2_NBIO_IDLEX	0	0	0	0	8.858719	13.87898	72.07972	1048.877326	92.65691	0	0	346.7845	0
A	CO2_NBIO_RUNEX	239.4505	286.6725	307.9995	372.4198	779.3387	754.9172	1080.76	1413.895929	1326.082	1597.162	210.0772	1049.23	1501.42
A	CO2_NBIO_STREX	50.82491	61.54625	66.71216	79.52882	11.54721	7.594669	9.152658	0.047202677	15.17619	1.392642	60.71341	4.118282	18.13538
A	NOX_IDLEX	0	0	0	0	0.05646	0.093939	0.413905	5.391729563	0.37569	0	0	3.438336	0
A	NOX_RUNEX	0.029391	0.067754	0.059969	0.071504	0.645533	0.773009	1.448062	2.686297103	1.466446	0.729407	1.146289	4.645105	1.307268
A	NOX_STREX	0.165155	0.213522	0.249233	0.292815	0.30476	0.171871	1.698951	2.321261226	1.093896	0.010827	0.270709	0.856319	0.243677
A	PM10_IDLEX	0	0	0	0	0.000842	0.001437	0.000369	0.002582324	0.000122	0	0	0.003612	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060952091	0.13034	0.069383	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009779	0.010769	0.012	0.035531716	0.012	0.033326	0.004	0.010877	0.013117
A	PM10_RUNEX	0.001296	0.001646	0.001347	0.001438	0.009623	0.015204	0.007023	0.024936873	0.007393	0.005328	0.001997	0.029851	0.022656
A	PM10_STREX	0.00168	0.002108	0.001701	0.00181	0.000247	0.000127	0.000115	6.20482E-07	0.000145	1.52E-05	0.00293	4.83E-05	0.000261
A	PM25_IDLEX	0	0	0	0	0.000805	0.001375	0.000353	0.002470614	0.000117	0	0	0.003456	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026122325	0.05586	0.029736	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002445	0.002692	0.003	0.008882929	0.003	0.008332	0.001	0.002719	0.003279
A	PM25_RUNEX	0.001194	0.001514	0.00124	0.001326	0.009159	0.014521	0.006713	0.02385809	0.00706	0.005096	0.001865	0.028546	0.021632
A	PM25_STREX	0.001544	0.001938	0.001564	0.001664	0.000228	0.000117	0.000106	5.7051E-07	0.000133	1.4E-05	0.002752	4.44E-05	0.00024
A	ROG_DIURN	0.035268	0.074886	0.059509	0.0674	0.001912	0.000985	0.000383	2.04804E-06	0.00109	2.11E-05	1.802995	0.000567	0.638647
A	ROG_HTSK	0.084451	0.14553	0.11595	0.128626	0.071617	0.03871	0.018244	9.33924E-05	0.016091	0.000161	0.676373	0.005509	0.054262
A	ROG_IDLEX	0	0	0	0	0.020629	0.015457	0.018226	0.427772974	0.046173	0	0	0.252008	0
A	ROG_RESTL	0.031475	0.061226	0.057117	0.065393	0.000985	0.000514	0.000198	1.14427E-06	0.000485	8.98E-06	0.97629	0.000247	0.227116
A	ROG_RUNEX	0.006416	0.015308	0.011766	0.014114	0.088883	0.108465	0.015787	0.02569783	0.02373	0.019675	2.190481	0.082853	0.063008
A	ROG_RUNLS	0.19586	0.538092	0.408725	0.425225	0.497047	0.248914	0.102215	0.000473173	0.179468	0.000814	1.887358	0.036799	1.296192
A	ROG_STREX	0.192338	0.274731	0.283917	0.344096	0.069832	0.038485	0.048205	2.32277E-06	0.087883	0.006407	1.930344	0.028372	0.092183
A	SO2_IDLEX	0	0	0	0	8.59E-05	0.000133	0.000684	0.009760709	0.00088	0	0	0.003301	0
A	SO2_RUNEX	9.32E-05	0.002619	0.010304	0.003606	0.007608	0.007289	0.010304	0.012940727	0.012763	0.011293	0.002079	0.01002	0.014735
A	SO2_STREX	0	0	9.06E-05	0.000771	0.000114	7.52E-05	9.06E-05	4.67109E-07	0.00015	1.38E-05	0.000601	4.08E-05	0.000179
A	TOG_DIURN	0.035268	0.074886	0.059509	0.0674	0.001912	0.000985	0.000383	2.04804E-06	0.00109	2.11E-05	1.802995	0.000567	0.638647
A	TOG_HTSK	0.084451	0.14553	0.11595	0.128626	0.071617	0.03871	0.018244	9.33924E-05	0.016091	0.000161	0.676373	0.005509	0.054262
A	TOG_IDLEX	0	0	0	0	0.029037	0.020764	0.02476	0.491871395	0.059643	0	0	0.360804	0
A	TOG_RESTL	0.031475	0.061226	0.057117	0.065393	0.000985	0.000514	0.000198	1.14427E-06	0.000485	8.98E-06	0.97629	0.000247	0.227116
A	TOG_RUNEX	0.009328	0.022322	0.017133	0.020501	0.108536	0.126319	0.019853	0.077498474	0.03185	1.377227	2.721006	0.098738	0.082805
A	TOG_RUNLS	0.19586	0.538092	0.408725	0.425225	0.497047	0.248914	0.102215	0.000473173	0.179468	0.000814	1.887358	0.036799	1.296192
A	TOG_STREX	0.210586	0.300795	0.310854	0.376741	0.076457	0.042137	0.052778	2.54314E-06	0.096221	0.007015	2.101179	0.031064	0.100929

PROJECT	Cambrian Park Plaza					CalEEMod EMFAC2017 Fleet Mix Input					YEAR	2024
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.591953	0.053004	0.176619	0.106733	0.020956	0.005303	0.013483	0.022364	0.001589	0.001248	0.005076	0.00092	0.000752

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2024	**1.0012**	**1.001**	**1.0011**	**1.0051**	**1.0044**	**1.0207**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	4.84147788	5.17072E-05	594.9439446	0.0005539	96.86828935	0.001035
	HHDT	DSL	8656.54003	0.092452244	1058417.656	0.9853705	92089.70552	0.983522
	HHDT	NG	370.765086	0.003959788	15119.11443	0.0140757	1445.983835	0.015443
			9032.1466		1074131.714		93632.55764	
	LDA	GAS	768835.879	0.201678037	26997720.33	0.949575	3625781.847	0.951101
	LDA	DSL	8011.40793	0.002101521	291515.8709	0.0102533	38101.0904	0.009995
	LDA	ELEC	30564.2821	0.008017504	1142136.7	0.0401717	148311.4314	0.038904
			807411.569		28431372.9		3812194.369	
	LDT1	GAS	77491.4919	0.212527214	2505904.5	0.9843415	359687.4033	0.986474
	LDT1	DSL	31.5405256	8.65027E-05	577.78032	0.000227	104.3444755	0.000286
	LDT1	ELEC	971.307535	0.002663896	39285.06821	0.0154315	4827.401743	0.01324
			78494.34		2545767.349		364619.1495	
	LDT2	GAS	257922.088	0.209580619	8298132.338	0.9782123	1201453.102	0.976269
	LDT2	DSL	1933.86431	0.001571407	68985.44168	0.0081322	9385.606998	0.007626
	LDT2	ELEC	3976.56681	0.003231252	115838.712	0.0136555	19819.40381	0.016105
			263832.52		8482956.492		1230658.113	
	LHDT1	GAS	16595.2945	0.041575247	558796.3061	0.5551684	247245.1616	0.619409
	LHDT1	DSL	12077.3367	0.030256664	447738.4813	0.4448316	151917.702	0.380591
			28672.6312	0.071831911	1006534.787		399162.8637	
	LHDT2	GAS	2318.35111	0.024177086	78374.99134	0.3077393	34539.9772	0.360203
	LHDT2	DSL	4877.31215	0.050863389	176304.8377	0.6922607	61350.45125	0.639797
			7195.66326	0.075040475	254679.8291		95890.42844	
	MCY	GAS	34431.3707	1	243796.974	1	68862.74135	1
	MDV	GAS	156824.503	0.207195889	4915329.582	0.9588325	725874.2983	0.959022
	MDV	DSL	4279.34381	0.005653851	148384.3757	0.0289453	20665.80245	0.027304
	MDV	ELEC	2041.89298	0.002697741	62655.18542	0.0122221	10349.9306	0.013674
			163145.74		5126369.143		756890.0314	
	MH	GAS	2827.42448	7.219950725	26048.95454	0.7208066	282.8555448	0.722284
	MH	DSL	1087.57166	2.777161295	10089.66545	0.2791934	108.7571664	0.277716
			3914.99614		36138.62		391.6127112	
	MHDT	GAS	1564.85717	0.012292891	81219.93946	0.1254151	31309.66227	0.245956
	MHDT	DSL	9624.84768	0.075608948	566389.2465	0.8745849	95988.07113	0.754044
			11189.7048		647609.186		127297.7334	
	OBUS	GAS	504.735629	0.029508717	23300.25921	0.3053353	10098.75047	0.59041
	OBUS	DSL	763.942902	0.044662936	53010.14045	0.6946647	7005.877548	0.40959
			1268.67853		76310.39965		17104.62802	
	SBUS	GAS	277.221909	0.021692459	12408.75559	0.2807991	1108.887634	0.08677
	SBUS	DSL	1011.34289	0.079137014	31782.10907	0.7192009	11670.75674	0.91323
			1288.5648		44190.86467		12779.64438	
	UBUS	GAS	8.42704935	0.003929273	1060.812695	0.0177031	33.70819739	0.015717
	UBUS	DSL	430.699381	0.200821832	46893.42079	0.78257	1722.797525	0.803287
	UBUS	NG	97.044584	0.045248895	11968.10394	0.1997269	388.1783359	0.180996
			536.171015		59922.33742		2144.684059	

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STREX	PM2.5_RU	PM2.5_IDL	PM2.5_STR	PM2.5_PM	PM2.5_PM	PM10_RUN	PM10_IDL	PM10_STR	PM10_PMT	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNE	N2O_IDLEX	N2O_STRE	ROG_RUNE	ROG_IDLEX	ROG_STRE	ROG_HOTS	ROG_RUNL	ROG_REST	ROG_DIUR	TOG_RUNE	TOG_IDLEX	TOG_STRE	TOG_HOTS	TOG_RUNL	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2024	HHDT	Aggregate	Aggregate	Gasoline	4.841478	594.9439	96.86829	3.020299	0	0.189099	0.00112	0	0.000551	0.005	0.02646	0.001219	0	0.0006	0.02	0.06174	1864.547	0	45.62595	0.076898	0	0.000429	0.12764	0	0.006341	0.362275	0	0.002245	0.090273	0.457367	0.02213	0.039608	0.528631	0	0.002458	0.090273	0.457367	0.02213	0.039608	27.06461	0	5.743732	0.018451	0	0.000452
Santa Clara	2024	HHDT	Aggregate	Aggregate	Diesel	8656.54	1058418	92089.71	2.703911	57.44438	2.359952	0.02415	0.025633	0	0.008883	0.026117	0.025242	0.026792	0	0.035534	0.06094	1388.989	11174.98	0	0.001112	0.214832	0	0.21833	1.756551	0	0.023933	4.625274	0	0	0	0	0	0.027246	5.265522	0	0	0	0	0	0.237639	67.56762	0	0.013122	0.105576	0
Santa Clara	2024	HHDT	Aggregate	Aggregate	Natural Ga	370.7651	15119.11	1445.984	1.4401	20.42228	0	0.004303	0.025442	0	0.009	0.02646	0.004498	0.026593	0	0.036	0.06174	3139.748	3971.23	0	3.408101	1.228196	0	0.640058	0.809561	0	0.135992	0.039404	0	0	0	0	0	3.577682	1.278365	0	0	0	0	0	10.81294	21.6569	0	0	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Gasoline	768835.9	26997720	3625782	0.030395	0	0.173438	0.0012	0	0.001624	0.002	0.01575	0.001305	0	0.001766	0.008	0.03675	244.9997	0	52.35424	0.001806	0	0.046341	0.003843	0	0.024653	0.006637	0	0.202005	0.088504	0.205724	0.155728	0.174002	0.009684	0	0.22117	0.088504	0.205724	0.155728	0.174002	0.54881	0	2.188955	0.002424	0	0.000518
Santa Clara	2024	LDA	Aggregate	Aggregate	Diesel	8011.408	291515.9	38101.09	0.048102	0	0	0.004683	0	0	0.002	0.01575	0.004895	0	0	0.008	0.03675	190.0661	0	0	0.000484	0	0	0.029876	0	0	0.010417	0	0	0	0	0	0	0.011859	0	0	0	0	0	0	0.179098	0	0	0.001797	0	0
Santa Clara	2024	LDA	Aggregate	Aggregate	Electricity	30564.28	1142137	148311.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	LDT1	Aggregate	Aggregate	Gasoline	77491.49	2505905	359687.4	0.068518	0	0.216191	0.0015	0	0.001965	0.002	0.01575	0.001632	0	0.002137	0.008	0.03675	285.2357	0	61.12483	0.003656	0	0.0584	0.005889	0	0.026446	0.015495	0	0.278192	0.147313	0.544925	0.287739	0.351787	0.022607	0	0.304585	0.147313	0.544925	0.287739	0.351787	0.864479	0	2.286362	0.002823	0	0.000605
Santa Clara	2024	LDT1	Aggregate	Aggregate	Diesel	31.54053	577.7803	104.3445	1.003934	0	0	0.132094	0	0	0.002	0.01575	0.138066	0	0	0.008	0.03675	393.8059	0	0	0.007979	0	0	0.061901	0	0	0.171786	0	0	0	0	0	0	0.195567	0	0	0	0	0	0	0.993473	0	0	0.003723	0	0
Santa Clara	2024	LDT1	Aggregate	Aggregate	Electricity	971.3075	39285.07	4827.402	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	LDT2	Aggregate	Aggregate	Gasoline	257922.1	8298132	1201453	0.060942	0	0.254985	0.001226	0	0.001602	0.002	0.01575	0.001333	0	0.001742	0.008	0.03675	306.3042	0	66.94798	0.002992	0	0.063272	0.005453	0	0.030095	0.011904	0	0.290499	0.118569	0.418242	0.272186	0.28339	0.017369	0	0.31806	0.118569	0.418242	0.272186	0.28339	0.750324	0	2.754987	0.003031	0	0.000663
Santa Clara	2024	LDT2	Aggregate	Aggregate	Diesel	1933.864	68985.44	9385.607	0.034803	0	0	0.004306	0	0	0.002	0.01575	0.004501	0	0	0.008	0.03675	261.017	0	0	0.000618	0	0	0.041028	0	0	0.013297	0	0	0	0	0	0	0.015138	0	0	0	0	0	0	0.124646	0	0	0.002468	0	0
Santa Clara	2024	LDT2	Aggregate	Aggregate	Electricity	3976.567	115838.7	19819.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Gasoline	16595.29	558796.3	247245.2	0.188441	0.036329	0.492017	0.002119	0	0.000367	0.002	0.03276	0.002304	0	0.0004	0.008	0.07644	981.413	118.8928	18.64229	0.008635	0.116255	0.022385	0.011684	0.00305	0.039132	0.041266	0.416309	0.11274	0.115621	0.802453	0.023685	0.04598	0.060215	0.607477	0.123436	0.115621	0.802453	0.023685	0.04598	0.775411	3.757388	1.688646	0.009712	0.001177	0.000184
Santa Clara	2024	LHDT1	Aggregate	Aggregate	Diesel	12077.34	447738.5	151917.7	1.216004	1.816109	0	0.017946	0.026621	0	0.003	0.03276	0.018757	0.027824	0	0.012	0.07644	527.1415	129.4169	0	0.006889	0.005098	0	0.082859	0.020343	0	0.148312	0.10976	0	0	0	0	0	0.168843	0.124954	0	0	0	0	0	0.625521	0.909745	0	0.004983	0.001223	0
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Gasoline	2318.351	78374.99	34539.98	0.186009	0.035621	0.477152	0.002016	0	0.000324	0.002	0.03822	0.002192	0	0.000352	0.008	0.08918	1117.473	136.319	21.08444	0.006588	0.114918	0.021458	0.012162	0.002973	0.037878	0.028759	0.40841	0.106844	0.107467	0.691039	0.021248	0.040757	0.041965	0.595951	0.11698	0.107467	0.691039	0.021248	0.040757	0.534699	3.762482	1.666987	0.011058	0.001349	0.000209
Santa Clara	2024	LHDT2	Aggregate	Aggregate	Diesel	4877.312	176304.8	61350.45	1.033956	1.829953	0	0.02008	0.027033	0	0.003	0.03822	0.020988	0.028255	0	0.012	0.08918	593.7458	208.0708	0	0.006684	0.005098	0	0.093329	0.032706	0	0.143898	0.10976	0	0	0	0	0	0.163818	0.124954	0	0	0	0	0	0.61131	0.909745	0	0.005613	0.001967	0
Santa Clara	2024	MCY	Aggregate	Aggregate	Gasoline	34431.37	243797	68862.74	1.146289	0	0.270709	0.001865	0	0.002752	0.001	0.00504	0.001997	0	0.00293	0.004	0.01176	210.0772	0	60.71341	0.325313	0	0.253919	0.066025	0	0.015366	2.190481	0	1.930344	0.676373	1.887358	0.97629	1.802995	2.721006	0	2.101179	0.676373	1.887358	0.97629	1.802995	18.59611	0	9.061179	0.002079	0	0.000601
Santa Clara	2024	MDV	Aggregate	Aggregate	Gasoline	156824.5	4915330	725874.3	0.073555	0	0.30496	0.001269	0	0.001735	0.002	0.01575	0.00138	0	0.001887	0.008	0.03675	370.2473	0	81.24522	0.003533	0	0.07385	0.006301	0	0.032254	0.014431	0	0.358405	0.133918	0.442951	0.315236	0.324744	0.021047	0	0.392407	0.133918	0.442951	0.315236	0.324744	0.809607	0	3.072017	0.003664	0	0.000804
Santa Clara	2024	MDV	Aggregate	Aggregate	Diesel	4279.344	148384.4	20665.8	0.030793	0	0	0.003552	0	0	0.002	0.01575	0.003712	0	0	0.008	0.03675	340.7089	0	0	0.00042	0	0	0.053555	0	0	0.009041	0	0	0	0	0	0	0.010293	0	0	0	0	0	0	0.1773	0	0	0.003221	0	0
Santa Clara	2024	MDV	Aggregate	Aggregate	Electricity	2041.893	62655.19	10349.93	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2024	MH	Aggregate	Aggregate	Gasoline	2827.424	26048.95	282.8555	0.319474	0	0.337369	0.001496	0	0.000332	0.003	0.05586	0.001627	0	0.000361	0.012	0.13034	1698.665	0	25.10838	0.011423	0	0.03111	0.021443	0	0.036462	0.047898	0	0.127627	0.075126	1.794574	0.031457	0.088456	0.069892	0	0.139736	0.075126	1.794574	0.031457	0.088456	1.158649	0	2.813821	0.01681	0	0.000248
Santa Clara	2024	MH	Aggregate	Aggregate	Diesel	1087.572	10089.67	108.7572	3.8575	0	0	0.073619	0	0	0.004	0.05586	0.076948	0	0	0.016	0.13034	992.182	0	0	0.004739	0	0	0.155957	0	0	0.102018	0	0	0	0	0	0	0.116141	0	0	0	0	0	0	0.353157	0	0	0.00938	0	0
Santa Clara	2024	MHDT	Aggregate	Aggregate	Gasoline	1564.857	81219.94	31309.66	0.31759	0.088787	0.357983	0.00128	0	0.000432	0.003	0.05586	0.001392	0	0.000469	0.012	0.13034	1664.466	518.4053	37.21256	0.009834	0.269491	0.03713	0.017321	0.007911	0.029454	0.046731	1.017203	0.195989	0.074177	0.415581	0.016077	0.031122	0.06819	1.484301	0.214584	0.074177	0.415581	0.016077	0.031122	1.055715	15.16855	4.34781	0.016471	0.00513	0.000368
Santa Clara	2024	MHDT	Aggregate	Aggregate	Diesel	9624.848	566389.2	95988.07	1.610171	5.459844	2.136352	0.007492	0.004673	0	0.003	0.05586	0.00783	0.004884	0	0.012	0.13034	997.0565	869.0377	0	0.000527	0.003515	0	0.156723	0.136601	0	0.01135	0.075674	0	0	0	0	0	0.012921	0.086149	0	0	0	0	0	0.114514	2.701556	0	0.00942	0.00821	0
Santa Clara	2024	OBUS	Aggregate	Aggregate	Gasoline	504.7356	23300.26	10098.75	0.360432	0.065159	0.318556	0.00103	0	0.000226	0.003	0.05586	0.00112	0	0.000245	0.012	0.13034	1712.694	370.3334	25.70448	0.010554	0.201432	0.02907	0.019268	0.00573	0.026194	0.04937	0.747749	0.148852	0.027254	0.303972	0.016446	0.036927	0.07204	1.091114	0.162974	0.027254	0.303972	0.016446	0.036927	1.073358	5.783505	3.116445	0.016948	0.003665	0.000254
Santa Clara	2024	OBUS	Aggregate	Aggregate	Diesel	763.9429	53010.14	7005.878	1.952588	8.368625	2.211523	0.009711	0.002619	0	0.003	0.05586	0.01015	0.002738	0	0.012	0.13034	1156.149	1829.903	0	0.000579	0.025071	0	0.181731	0.287635	0	0.01246	0.539782	0	0	0	0	0	0.014185	0.6145	0	0	0	0	0	0.143603	9.166694	0	0.010923	0.017288	0
Santa Clara	2024	SBUS	Aggregate	Aggregate	Gasoline	277.2219	12408.76	1108.888	0.391846	0.925198	0.582393	0.001195	0	0.000512	0.002	0.3192	0.0013	0	0.000557	0.008	0.7448	849.9257	2540.147	47.46214	0.010004	2.441578	0.057304	0.022787	0.088525	0.054796	0.049026	10.62205	0.32698	0.063489	0.424105	0.011364	0.026144	0.071538	15.49967	0.358002	0.063489	0.424105	0.011364	0.026144	1.061031	82.12266	8.250612	0.008411	0.025137	0.00047
Santa Clara	2024	SBUS	Aggregate	Aggregate	Diesel	1011.343	31782.11	11670.76	6.305713	43.19427	0.882346	0.039225	0.043673	0	0.003	0.3192	0.040998	0.045648	0	0.012	0.7448	1127.045	3685.79	0	0.004462	0.012671	0	0.177156	0.579355	0	0.09606	0.272808	0	0	0	0	0	0.109357	0.310572	0	0	0	0	0	0.272311	6.223874	0	0.010648	0.034822	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Gasoline	8.427049	1060.813	33.7082	0.179651	0	0.688867	0.002209	0	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.507	0	88.60685	0.007013	0	0.097882	0.017812	0	0.068509	0.022728	0	0.407643	0.01024	0.051815	0.002284	0.005364	0.033164	0	0.446318	0.01024	0.051815	0.002284	0.005364	0.280937	0	8.852622	0.019361	0	0.000877
Santa Clara	2024	UBUS	Aggregate	Aggregate	Diesel	430.6994	46893.42	1722.798	0.802546	0	0	0.005646	0	0	0.008399	0.029403	0.005901	0	0	0.033598	0.068607	1480.079	0	0	0.077245	0	0	0.232648	0	0	0.001104	0	0	0	0	0	0	0.078834	0	0	0	0	0	0	0.131094	0	0	0.013992	0	0
Santa Clara	2024	UBUS	Aggregate	Aggregate	Natural Ga	97.04458	11968.1	388.1783	0.491562	0	0	0.003197	0	0	0.008538	0.028723	0.003341	0	0	0.034153	0.06702	2024.066	0	0	6.451003	0	0	0.412619	0	0	0.092172	0	0	0	0	0	0	6.583722	0	0	0	0	0	0	50.12428	0	0	0	0	0

Project	Cambrian Park Plaza		CalEEMod EMFAC2017 Emission Factors Input									YEAR	2030
Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004148	0.002505	0.003832	0.024231453	0.007098	0	0	0.070082	0
A	CH4_RUNEX	0.000959	0.001671	0.001726	0.001772	0.005195	0.005339	0.001034	0.04518098	0.002197	1.859484	0.319087	0.004404	0.005027
A	CH4_STREX	0.028931	0.035248	0.041821	0.043924	0.009023	0.004811	0.008383	4.34672E-07	0.015222	0.002186	0.24786	0.006338	0.019545
A	CO_IDLEX	0	0	0	0	0.17731	0.131894	0.405402	6.28489984	0.644155	0	0	2.927328	0
A	CO_RUNEX	0.411156	0.540474	0.559142	0.551517	0.468742	0.489111	0.152189	0.405949458	0.262856	14.11073	17.60732	0.374881	0.311691
A	CO_STREX	1.716961	1.849789	2.287973	2.324828	0.890393	0.484256	0.872515	0.006685308	1.577018	0.139137	9.199577	0.858725	1.635194
A	CO2_NBIO_IDLEX	0	0	0	0	8.251826	13.00041	65.09769	930.0496847	97.36242	0	0	337.4754	0
A	CO2_NBIO_RUNEX	213.8884	258.4057	267.3331	322.2663	698.5465	679.813	993.4479	1226.348086	1210.85	1668.671	209.7572	970.5049	1350.267
A	CO2_NBIO_STREX	45.12682	55.17203	57.56738	67.91602	10.09364	6.438033	8.550649	0.051649278	13.46187	1.401901	59.22586	5.059627	15.54123
A	NOX_IDLEX	0	0	0	0	0.045908	0.074209	0.341766	5.199426871	0.431935	0	0	2.710433	0
A	NOX_RUNEX	0.019319	0.033468	0.034489	0.035665	0.299902	0.384329	1.428316	2.517362076	1.448391	0.706433	1.137409	3.086533	1.063099
A	NOX_STREX	0.125333	0.151052	0.168209	0.179169	0.225227	0.124883	1.689216	2.314548745	1.129093	0.015157	0.270173	1.184451	0.23668
A	PM10_IDLEX	0	0	0	0	0.000915	0.001502	0.000162	0.002145897	0.000142	0	0	0.002048	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.061109857	0.13034	0.069383	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009901	0.010844	0.012	0.035621239	0.012	0.033326	0.004	0.010676	0.013189
A	PM10_RUNEX	0.000929	0.00107	0.001025	0.001034	0.007019	0.013839	0.007006	0.023790073	0.007882	0.005116	0.002138	0.021245	0.016043
A	PM10_STREX	0.001275	0.001461	0.00134	0.001344	0.00021	0.000106	0.000112	5.80093E-07	0.000156	1.52E-05	0.002862	6.76E-05	0.000212
A	PM25_IDLEX	0	0	0	0	0.000875	0.001437	0.000155	0.002053066	0.000136	0	0	0.00196	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026189939	0.05586	0.029736	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002475	0.002711	0.003	0.00890531	0.003	0.008332	0.001	0.002669	0.003297
A	PM25_RUNEX	0.000855	0.000984	0.000944	0.000954	0.006671	0.013218	0.006696	0.022760894	0.007526	0.004893	0.001994	0.02031	0.015312
A	PM25_STREX	0.001172	0.001344	0.001232	0.001236	0.000193	9.76E-05	0.000103	5.33374E-07	0.000144	1.4E-05	0.002676	6.22E-05	0.000195
A	ROG_DIURN	0.024903	0.046388	0.048996	0.057349	0.001403	0.000642	0.000289	1.32994E-06	0.001062	6.14E-05	1.786807	0.00087	0.347564
A	ROG_HTSK	0.061657	0.093564	0.089096	0.0981	0.054855	0.024352	0.013852	5.78076E-05	0.015622	0.000814	0.631299	0.008304	0.028392
A	ROG_IDLEX	0	0	0	0	0.01734	0.013466	0.01847	0.422100311	0.050126	0	0	0.322319	0
A	ROG_RESTL	0.022934	0.041206	0.048532	0.056738	0.000772	0.000374	0.000168	7.97633E-07	0.000487	3.58E-05	0.946881	0.000414	0.1401
A	ROG_RUNEX	0.003247	0.0065	0.006553	0.006887	0.072661	0.0982	0.011844	0.024014489	0.016744	0.026969	2.128511	0.060159	0.038911
A	ROG_RUNLS	0.170512	0.364405	0.336782	0.340289	0.429696	0.143744	0.071507	0.000284481	0.181965	0.004928	1.487321	0.053902	0.535482
A	ROG_STREX	0.118715	0.154126	0.182707	0.199251	0.043726	0.022756	0.041407	2.2699E-06	0.076636	0.009261	1.877593	0.036024	0.074231
A	SO2_IDLEX	0	0	0	0	7.99E-05	0.000124	0.000618	0.00865265	0.000924	0	0	0.003219	0
A	SO2_RUNEX	9E-05	0.002567	0.00948	0.002976	0.006812	0.006557	0.00948	0.011212041	0.011649	0.010417	0.002076	0.009288	0.013242
A	SO2_STREX	0	0	8.46E-05	0.000628	9.99E-05	6.37E-05	8.46E-05	5.11111E-07	0.000133	1.39E-05	0.000586	5.01E-05	0.000154
A	TOG_DIURN	0.024903	0.046388	0.048996	0.057349	0.001403	0.000642	0.000289	1.32994E-06	0.001062	6.14E-05	1.786807	0.00087	0.347564
A	TOG_HTSK	0.061657	0.093564	0.089096	0.0981	0.054855	0.024352	0.013852	5.78076E-05	0.015622	0.000814	0.631299	0.008304	0.028392
A	TOG_IDLEX	0	0	0	0	0.02413	0.017772	0.025282	0.485180108	0.063906	0	0	0.463821	0
A	TOG_RESTL	0.022934	0.041206	0.048532	0.056738	0.000772	0.000374	0.000168	7.97633E-07	0.000487	3.58E-05	0.946881	0.000414	0.1401
A	TOG_RUNEX	0.004716	0.009483	0.009524	0.009983	0.08579	0.112949	0.014288	0.071682245	0.021563	1.898202	2.666273	0.071678	0.048331
A	TOG_RUNLS	0.170512	0.364405	0.336782	0.340289	0.429696	0.143744	0.071507	0.000284481	0.181965	0.004928	1.487321	0.053902	0.535482
A	TOG_STREX	0.129977	0.168749	0.200041	0.218155	0.047875	0.024915	0.045336	2.48526E-06	0.083906	0.01014	2.04481	0.039442	0.081274

PROJECT	**Cambrian Park Plaza**						**CalEEMod EMFAC2017 Fleet Mix Input**					**YEAR**	**2030**
FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.595423	0.053963	0.1714	0.106522	0.021043	0.005556	0.013639	0.023425	0.001443	0.001178	0.00478	0.0009	0.000728

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles						
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2 Exhaust
NA	1	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126
2024	1.0012	1.0010	1.0011	1.0051	1.0044	1.0207
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309
2026	1.0023	1.0022	1.0020	1.0091	1.0083	1.0394
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475
2028	1.0034	1.0035	1.0028	1.0117	1.0120	1.0554
2029	1.0040	1.0042	1.0032	1.0129	1.0138	1.0629
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.0770
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947
2035	1.0081	1.0108	1.0063	1.0210	1.0232	1.0997
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.1080
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143
2040	1.0109	1.0174	1.0090	1.0270	1.0281	1.1168
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251
2047	1.0127	1.0240	1.0113	1.0311	1.0311	1.1258
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272
Enter Year: 2030	**1.0047**	**1.0051**	**1.0037**	**1.0142**	**1.0156**	**1.0702**

*PM Exhaust off model factor is only applied to the PM Exhaust emissions not start/idle

The off-model adjustment factors need to be applied only to emissions from gasoline light duty vehicles (LDA, LDT1, LDT2 and MDV). Please note that the adjustment factors are by calendar year and includes all model years.

Enter NA in the date field if adjustments do not apply

Adjustment Factors	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	6.64490772	6.44208E-05	846.0095307	0.0007082	132.9513137	0.001289
	HHDT	DSL	9431.66014	0.091437677	1177484.801	0.9856235	101453.9057	0.983571
	HHDT	NG	400.423733	0.003882012	16329.01039	0.0136683	1561.65256	0.01514
			9838.72878		1194659.821		103148.5096	
	LDA	GAS	869969.054	0.199455174	28403709.05	0.9353624	4092414.492	0.938255
	LDA	DSL	10023.6311	0.002298088	337674.2133	0.0111199	47693.27274	0.010934
	LDA	ELEC	46172.9575	0.010585934	1625145.787	0.0535177	221619.429	0.05081
			926165.643		30366529.05		4361727.194	
	LDT1	GAS	88972.3781	0.210143948	2670255.623	0.9702623	412660.2081	0.974663
	LDT1	DSL	12.417636	2.93292E-05	352.1646201	0.000128	54.72797689	0.000129
	LDT1	ELEC	2180.04354	0.005149047	81488.92574	0.0296098	10672.83699	0.025208
			91164.8393		2752096.714		423387.7731	
	LDT2	GAS	281546.851	0.207012788	8446247.278	0.9662385	1307139.072	0.961099
	LDT2	DSL	2576.29805	0.001894273	81354.45831	0.0093068	12261.45311	0.009015
	LDT2	ELEC	8320.47779	0.006117793	213767.17	0.0244547	40645.17011	0.029885
			292443.626		8741368.906		1360045.695	
	LHDT1	GAS	17444.2479	0.039011141	563109.062	0.524693	259893.3012	0.581208
	LHDT1	DSL	14887.6067	0.033293641	510107.1807	0.475307	187267.3634	0.418792
			32331.8545	0.072304782	1073216.243		447160.6646	
	LHDT2	GAS	2535.29338	0.022078647	81915.35225	0.2890754	37772.09381	0.328939
	LHDT2	DSL	6126.0507	0.053348821	201454.8533	0.7109246	77058.01119	0.671061
			8661.34408	0.075427468	283370.2055		114830.105	
	MCY	GAS	38839.8704	1	243796.974	1	68862.74135	1
	MDV	GAS	173606.03	0.202481545	5113917.766	0.9413395	803848.003	0.93755
	MDV	DSL	5652.32289	0.006592462	175214.3444	0.0322524	26820.46473	0.031281
	MDV	ELEC	5412.77598	0.006313071	143464.5329	0.0264081	26723.39796	0.031168
			184671.128		5432596.643		857391.8657	
	MH	GAS	2781.1835	6.860584351	26082.34767	0.7028599	278.229597	0.686333
	MH	DSL	1271.56206	3.136671415	11026.53592	0.2971401	127.1562061	0.313667
			4052.74556		37108.88359		405.385803	
	MHDT	GAS	1942.27387	0.0129396	96462.79575	0.1386758	38861.01552	0.258896
	MHDT	DSL	11245.4208	0.074917989	599136.6222	0.8613242	111242.0637	0.741104
			13187.6946		695599.4179		150103.0793	
	OBUS	GAS	521.244172	0.028488575	22324.56075	0.3033729	10429.05339	0.569999
	OBUS	DSL	845.855674	0.046230201	51263.28582	0.6966271	7867.550505	0.430001
			1367.09985		73587.84657		18296.60389	
	SBUS	GAS	362.301365	0.028382924	15198.78251	0.3309775	1449.205462	0.113532
	SBUS	DSL	980.562908	0.076817934	30722.10855	0.6690225	11315.56001	0.886468
			1342.86427		45920.89106		12764.76547	
	UBUS	GAS	8.45001015	0.003929273	1063.703044	0.0177031	33.80004061	0.015717
	UBUS	DSL	376.894326	0.175256681	42036.6241	0.6996122	1507.577304	0.701027
	UBUS	NG	152.28756	0.070814046	16985.27801	0.2826846	609.1502392	0.283256
			537.631896		60085.60515		2150.527584	

Source: EMFAC2017 (v1.0.3) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX, RESTLOSS and DIURN

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNE	NOx_IDLEX	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STI	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLI	PM10_STR	PM10_PM	PM10_PMI	CO2_RUNE	CO2_IDLEX	CO2_STRE	CH4_RUNE	CH4_IDLEX	CH4_STRE	N2O_RUNE	N2O_IDLE	N2O_STRE	ROG_RUNE	ROG_IDLE	ROG_STRE	ROG_HOTS	ROG_RUNI	ROG_REST	ROG_DIUR	TOG_RUNE	TOG_IDLE	TOG_STRE	TOG_HOTS	TOG_RUNI	TOG_REST	TOG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Santa Clara	2030	HHDT	Aggregate	Aggregate	Gasoline	6.644908	846.0095	132.9513	2.895279	0	0.044486	0.001084	0	0.000414	0.005	0.02646	0.001179	0	0.00045	0.02	0.06174	1677.599	0	40.07141	0.06849	0	0.000337	0.127319	0	0.001575	0.302922	0	0.001761	0.044849	0.220711	0.012382	0.020645	0.442024	0	0.001928	0.044849	0.220711	0.012382	0.020645	28.21474	0	5.186707	0.016601	0	0.000397
Santa Clara	2030	HHDT	Aggregate	Aggregate	Diesel	9431.66	1177485	101453.9	2.539781	56.05241	2.353151	0.023044	0.021785	0	0.008907	0.026186	0.024086	0.02277	0	0.035627	0.061101	1202.821	10016.29	0	0.001063	0.214358	0	0.189067	1.574421	0	0.022896	4.615071	0	0	0	0	0	0.026066	5.253907	0	0	0	0	0	0.238872	67.80499	0	0.011364	0.094629	0
Santa Clara	2030	HHDT	Aggregate	Aggregate	Natural Ga	400.4237	16329.01	1561.653	0.881174	19.09434	0	0.003462	0.015749	0	0.009	0.02646	0.003619	0.016461	0	0.036	0.06174	2899.524	3653.632	0	3.225286	1.19295	0	0.591087	0.744817	0	0.090199	0.028054	0	0	0	0	0	3.341906	1.230036	0	0	0	0	0	11.01311	21.88788	0	0	0	0
Santa Clara	2030	LDA	Aggregate	Aggregate	Gasoline	869969.1	28403709	4092414	0.020358	0	0.132956	0.000879	0	0.001249	0.002	0.01575	0.000956	0	0.001359	0.008	0.03675	211.6944	0	44.94162	0.001023	0	0.030835	0.003085	0	0.020493	0.003388	0	0.12606	0.065117	0.180811	0.11416	0.123291	0.004944	0	0.13802	0.065117	0.180811	0.11416	0.123291	0.43107	0	1.801842	0.002095	0	0.000445
Santa Clara	2030	LDA	Aggregate	Aggregate	Diesel	10023.63	337674.2	47693.27	0.01676	0	0	0.001829	0	0	0.002	0.01575	0.001912	0	0	0.008	0.03675	166.1368	0	0	0.000273	0	0	0.026114	0	0	0.005885	0	0	0	0	0	0	0.006699	0	0	0	0	0	0	0.146966	0	0	0.001571	0	0
Santa Clara	2030	LDA	Aggregate	Aggregate	Electricity	46172.96	1625146	221619.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	LDT1	Aggregate	Aggregate	Gasoline	88972.38	2670256	412660.2	0.034308	0	0.154254	0.000998	0	0.001379	0.002	0.01575	0.001085	0	0.001499	0.008	0.03675	248.8135	0	52.89319	0.001722	0	0.036164	0.003879	0	0.021779	0.00667	0	0.15755	0.095382	0.371981	0.194977	0.219194	0.009733	0	0.172497	0.095382	0.371981	0.194977	0.219194	0.548445	0	1.868724	0.002462	0	0.000523
Santa Clara	2030	LDT1	Aggregate	Aggregate	Diesel	12.41764	352.1646	54.72798	0.189506	0	0	0.017188	0	0	0.002	0.01575	0.017965	0	0	0.008	0.03675	322.0531	0	0	0.001569	0	0	0.050622	0	0	0.033785	0	0	0	0	0	0	0.038462	0	0	0	0	0	0	0.286183	0	0	0.003045	0	0
Santa Clara	2030	LDT1	Aggregate	Aggregate	Electricity	2180.044	81488.93	10672.84	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	LDT2	Aggregate	Aggregate	Gasoline	281546.9	8446247	1307139	0.035247	0	0.174198	0.000925	0	0.001282	0.002	0.01575	0.001006	0	0.001394	0.008	0.03675	256.344	0	55.96845	0.00178	0	0.043514	0.003847	0	0.023481	0.006634	0	0.189401	0.09208	0.348635	0.233116	0.234964	0.00968	0	0.20737	0.09208	0.348635	0.233116	0.234964	0.568541	0	2.344012	0.002537	0	0.000554
Santa Clara	2030	LDT2	Aggregate	Aggregate	Diesel	2576.298	81354.46	12261.45	0.02908	0	0	0.003937	0	0	0.002	0.01575	0.004115	0	0	0.008	0.03675	226.4921	0	0	0.000595	0	0	0.035601	0	0	0.01282	0	0	0	0	0	0	0.014595	0	0	0	0	0	0	0.129762	0	0	0.002141	0	0
Santa Clara	2030	LDT2	Aggregate	Aggregate	Electricity	8320.478	213767.2	40645.17	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	LHDT1	Aggregate	Aggregate	Gasoline	17444.25	563109.1	259893.3	0.098098	0.030587	0.387515	0.002081	0	0.000333	0.002	0.03276	0.002264	0	0.000362	0.008	0.07644	897.5407	110.5325	17.36665	0.004317	0.101968	0.015524	0.006844	0.002802	0.033538	0.018245	0.350811	0.075233	0.094381	0.739315	0.019801	0.035959	0.026623	0.511903	0.082371	0.094381	0.739315	0.019801	0.035959	0.368714	3.768698	1.531971	0.008882	0.001094	0.000172
Santa Clara	2030	LHDT1	Aggregate	Aggregate	Diesel	14887.61	510107.2	187267.4	0.522674	1.343027	0	0.011738	0.026289	0	0.003	0.03276	0.012269	0.027477	0	0.012	0.07644	478.8761	118.3357	0	0.006165	0.005098	0	0.075273	0.018601	0	0.13273	0.10976	0	0	0	0	0	0.151104	0.124954	0	0	0	0	0	0.579164	0.909745	0	0.004527	0.001119	0
Santa Clara	2030	LHDT2	Aggregate	Aggregate	Gasoline	2535.293	81915.35	37772.09	0.091162	0.030032	0.379653	0.001975	0	0.000297	0.002	0.03822	0.002148	0	0.000323	0.008	0.08918	1021.816	126.3902	19.57212	0.00327	0.10112	0.014626	0.00699	0.00275	0.032936	0.012455	0.344716	0.06918	0.074032	0.436992	0.016932	0.02908	0.018175	0.503009	0.075743	0.074032	0.436992	0.016932	0.02908	0.249204	3.775612	1.472175	0.010112	0.001251	0.000194
Santa Clara	2030	LHDT2	Aggregate	Aggregate	Diesel	6126.051	201454.9	77058.01	0.503536	1.378592	0	0.017789	0.026933	0	0.003	0.03822	0.018593	0.028151	0	0.012	0.08918	540.7481	191.3797	0	0.006181	0.005098	0	0.084998	0.030082	0	0.133066	0.10976	0	0	0	0	0	0.151486	0.124954	0	0	0	0	0	0.586662	0.909745	0	0.005112	0.001809	0
Santa Clara	2030	MCY	Aggregate	Aggregate	Gasoline	38839.87	253703.2	77679.74	1.137409	0	0.270173	0.001994	0	0.002676	0.001	0.00504	0.002138	0	0.002862	0.004	0.01176	209.7572	0	59.22586	0.319087	0	0.24786	0.065566	0	0.015364	2.128511	0	1.877593	0.631299	1.487321	0.946881	1.786807	2.666273	0	2.04481	0.631299	1.487321	0.946881	1.786807	17.60732	0	9.199577	0.002076	0	0.000586
Santa Clara	2030	MDV	Aggregate	Aggregate	Gasoline	173606	5113918	803848	0.03715	0	0.190209	0.00093	0	0.001318	0.002	0.01575	0.001012	0	0.001433	0.008	0.03675	309.7804	0	67.68816	0.001872	0	0.04685	0.004005	0	0.024192	0.007071	0	0.21174	0.103941	0.361114	0.278651	0.281249	0.010317	0	0.231829	0.103941	0.361114	0.278651	0.281249	0.571385	0	2.441594	0.003066	0	0.00067
Santa Clara	2030	MDV	Aggregate	Aggregate	Diesel	5652.323	175214.3	26820.46	0.016338	0	0	0.001999	0	0	0.002	0.01575	0.00209	0	0	0.008	0.03675	295.1303	0	0	0.000296	0	0	0.04639	0	0	0.006382	0	0	0	0	0	0	0.007265	0	0	0	0	0	0	0.160558	0	0	0.00279	0	0
Santa Clara	2030	MDV	Aggregate	Aggregate	Electricity	5412.776	143464.5	26723.4	0	0	0	0	0	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
Santa Clara	2030	MH	Aggregate	Aggregate	Gasoline	2781.183	26082.35	278.2296	0.161957	0	0.344848	0.001294	0	0.000284	0.003	0.05586	0.001408	0	0.000309	0.012	0.13034	1534.746	0	22.64387	0.005412	0	0.028477	0.014768	0	0.039513	0.01789	0	0.108156	0.041368	0.780207	0.020421	0.050661	0.026105	0	0.118417	0.041368	0.780207	0.020421	0.050661	0.321425	0	2.382509	0.015188	0	0.000224
Santa Clara	2030	MH	Aggregate	Aggregate	Diesel	1271.562	11026.54	127.1562	3.194675	0	0	0.048471	0	0	0.004	0.05586	0.050662	0	0	0.016	0.13034	913.8987	0	0	0.004117	0	0	0.143652	0	0	0.088635	0	0	0	0	0	0	0.100905	0	0	0	0	0	0	0.288665	0	0	0.00864	0	0
Santa Clara	2030	MHDT	Aggregate	Aggregate	Gasoline	1942.274	96462.8	38861.02	0.137179	0.089333	0.328382	0.001276	0	0.000397	0.003	0.05586	0.001388	0	0.000432	0.012	0.13034	1512.526	477.0555	33.02741	0.004329	0.277482	0.032379	0.010371	0.008413	0.029895	0.018098	1.025296	0.159937	0.053505	0.276198	0.013009	0.02236	0.026409	1.49611	0.175111	0.053505	0.276198	0.013009	0.02236	0.365535	15.26266	3.370143	0.014968	0.004721	0.000327
Santa Clara	2030	MHDT	Aggregate	Aggregate	Diesel	11245.42	599136.6	111242.1	1.636194	4.546441	2.164606	0.007568	0.002068	0	0.003	0.05586	0.00791	0.002162	0	0.012	0.13034	909.8747	786.5238	0	0.000503	0.003226	0	0.14302	0.123631	0	0.010837	0.069445	0	0	0	0	0	0.012337	0.079058	0	0	0	0	0	0.11784	2.775159	0	0.008596	0.007431	0
Santa Clara	2030	OBUS	Aggregate	Aggregate	Gasoline	521.2442	22324.56	10429.05	0.201397	0.065222	0.308429	0.001191	0	0.000252	0.003	0.05586	0.001295	0	0.000274	0.012	0.13034	1542.791	344.1269	23.61734	0.005871	0.202191	0.026706	0.012891	0.005853	0.026143	0.025703	0.748687	0.134449	0.027407	0.319238	0.017082	0.037276	0.037506	1.092483	0.147204	0.027407	0.319238	0.017082	0.037276	0.529537	5.789149	2.766701	0.015267	0.003405	0.000234
Santa Clara	2030	OBUS	Aggregate	Aggregate	Diesel	845.8557	51263.29	7867.551	1.991442	9.302951	2.216948	0.010285	0.002947	0	0.003	0.05586	0.01075	0.003081	0	0.012	0.13034	1066.293	1893.973	0	0.000596	0.028932	0	0.167606	0.297706	0	0.012842	0.6229	0	0	0	0	0	0.01462	0.709124	0	0	0	0	0	0.14672	10.36618	0	0.010074	0.017893	0
Santa Clara	2030	SBUS	Aggregate	Aggregate	Gasoline	362.3014	15198.78	1449.205	0.285961	0.92653	0.616868	0.001215	0	0.000547	0.002	0.3192	0.001322	0	0.000595	0.008	0.7448	803.9675	2414.339	44.56576	0.00626	2.435971	0.055823	0.018735	0.089714	0.057177	0.030067	10.64152	0.317303	0.073145	0.474779	0.014584	0.030637	0.043873	15.52808	0.347407	0.073145	0.474779	0.014584	0.030637	0.649967	82.24088	7.563743	0.007956	0.023892	0.000441
Santa Clara	2030	SBUS	Aggregate	Aggregate	Diesel	980.5629	30722.11	11315.56	4.472027	34.94152	1.257143	0.029756	0.025511	0	0.003	0.3192	0.031102	0.026664	0	0.012	0.7448	1052.894	3501.127	0	0.003486	0.012263	0	0.1655	0.550328	0	0.075046	0.264022	0	0	0	0	0	0.085434	0.300569	0	0	0	0	0	0.238791	7.720739	0	0.009947	0.033077	0
Santa Clara	2030	UBUS	Aggregate	Aggregate	Gasoline	8.45001	1063.703	33.80004	0.336697	0	0.964336	0.002209	0	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.157	0	89.19596	0.006892	0	0.139066	0.027885	0	0.079916	0.022728	0	0.589249	0.05182	0.313542	0.009109	0.015639	0.033164	0	0.645153	0.05182	0.313542	0.009109	0.015639	0.405122	0	8.852622	0.019358	0	0.000883
Santa Clara	2030	UBUS	Aggregate	Aggregate	Diesel	376.8943	42036.62	1507.577	0.804174	0	0	0.005656	0	0	0.008428	0.029265	0.005912	0	0	0.03371	0.068284	1523.264	0	0	0.077448	0	0	0.239436	0	0	0.001107	0	0	0	0	0	0	0.079041	0	0	0	0	0	0	0.131472	0	0	0.0144	0	0
Santa Clara	2030	UBUS	Aggregate	Aggregate	Natural Ga	152.2876	16985.28	609.1502	0.487691	0	0	0.003174	0	0	0.008428	0.029265	0.003317	0	0	0.03371	0.068284	2010.534	0	0	6.385838	0	0	0.40986	0	0	0.091241	0	0	0	0	0	0	6.517216	0	0	0	0	0	0	49.56612	0	0	0	0	0

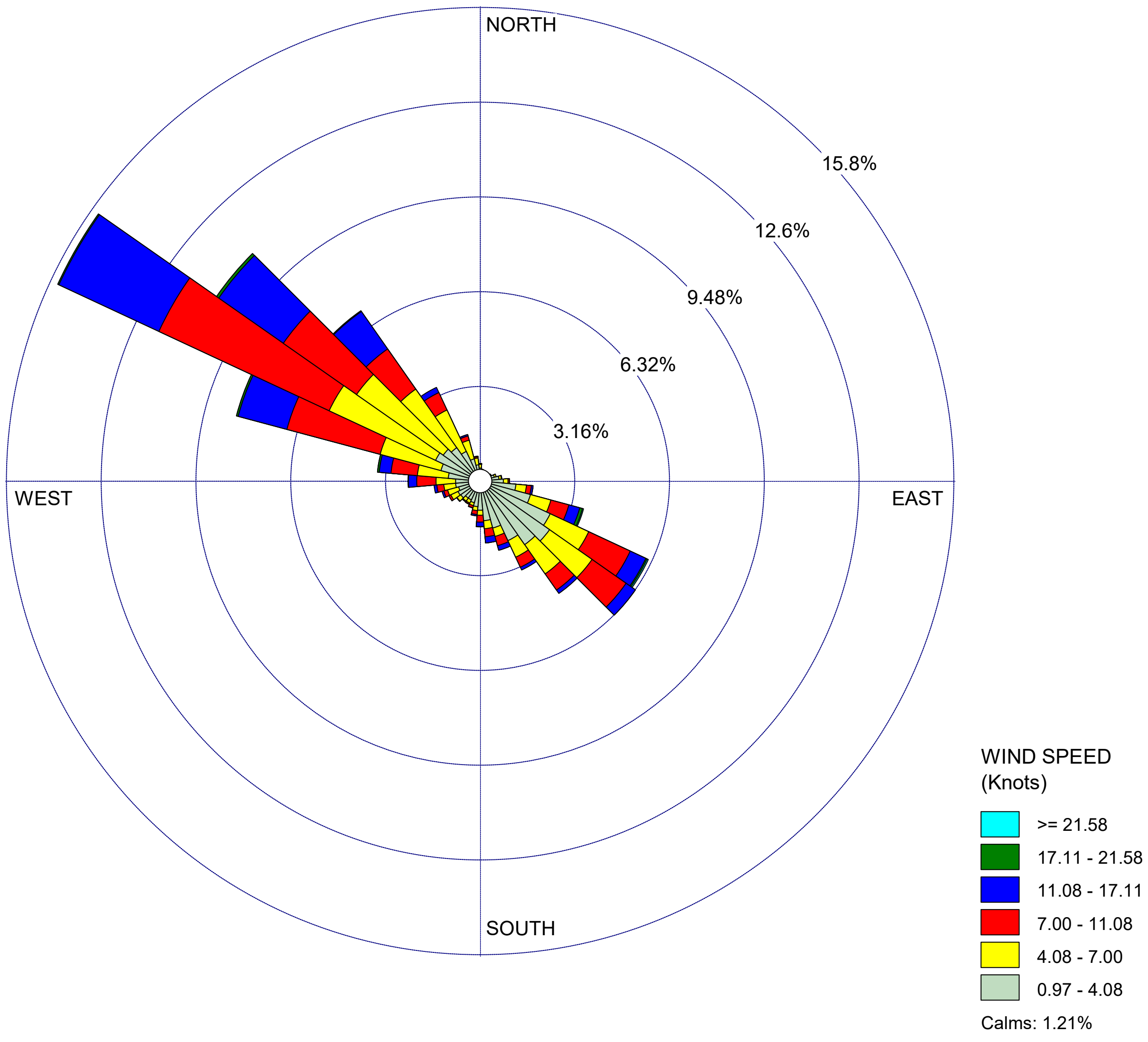
Attachment 4: Project Construction and Operation Dispersion Modeling Inputs and Risk Calculations

WIND ROSE PLOT:

San Jose International Airport (2013-2017)
Prepared by BAAQMD

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2013 - 00:00 **End Date: 12/31/2017 - 23:59**	MODELER:	
	CALM WINDS: **1.21%**	TOTAL COUNT: **43766 hrs.**	
	AVG. WIND SPEED: **6.21 Knots**	DATE: **10/1/2020**	PROJECT NO.:

PROJECT CONSTRUCTION HRA

Cambrian Park Plaza, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2021	Construction	0.1801	Point	112	360.3	0.09871	1.24E-02	1.11E-04
2022	Construction	0.2228	Point	112	445.7	0.12211	1.54E-02	1.37E-04
2023	Construction	0.1809	Point	112	361.9	0.09915	1.25E-02	1.12E-04
Total		***0.5839***		***336***	***1168***	***0.3200***		

Construction Hours

hr/day =	10	(7am-5pm)
days/yr =	365	
hours/year =	3650	

PM2.5 Fugitive Construction Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	Emission Rate $g/s/m^2$
2021	Construction	FUG	0.4226	845.3	0.23158	2.92E-02	69,654	4.19E-07
2022	Construction	FUG	0.2026	405.1	0.11100	1.40E-02	69,654	2.01E-07
2023	Construction	FUG	0.0040	7.9	0.00217	2.73E-04	69,654	3.92E-09
Total			***0.6292***	***1258***	***0.3447***	***0.0434***		

Construction Hours

hr/day =	10	(7am-5pm)
days/yr =	365	
hours/year =	3650	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Emissions per Point Source (g/s)
2021	Construction	0.0100	Point	112	19.9	0.00545	6.87E-04	6.14E-06
2022	Construction	0.0286	Point	112	57.3	0.01569	1.98E-03	1.77E-05
2023	Construction	0.0397	Point	112	79.5	0.02178	2.74E-03	2.45E-05
Total		***0.0783***		***336***	***157***	***0.0429***		

Construction Hours

hr/day =	10	(7am-5pm)
days/yr =	365	
hours/year =	3650	

PM2.5 Fugitive Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	Emission Rate $g/s/m^2$
2021	Construction	FUG	0.0838	167.7	0.04594	5.79E-03	69,654	8.31E-08
2022	Construction	FUG	0.0432	86.3	0.02366	2.98E-03	69,654	4.28E-08
2023	Construction	FUG	0.0040	7.9	0.00217	2.73E-04	69,654	3.92E-09
Total			***0.1310***	***261.9***	***0.0718***	***0.0090***		

Construction Hours

hr/day =	10	(7am-5pm)
days/yr =	365	
hours/year =	3650	

Project: **Cambrian Park Plaza, San Jose, CA**

	DPM					
	Unmitigated DPM	DPM EMFAC2017	Unmitigated Emissions	Mitigated DPM	DPM EMFAC2017	Mitigated Emissions
2021	0.177	0.003	0.180	0.007	0.003	0.010
2022	0.215	0.008	0.223	0.021	0.008	0.029
2023	0.175	0.006	0.181	0.0333	0.006	0.040
	Fugitive PM2.5					
	Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2017	Unmitigated Emissions	Mitigated Fug PM2.5	Fug PM2.5 EMFAC2017	Mitigated Emissions
2021	0.42090	0.002	0.423	0.082	0.002	0.084
2022	0.19800	0.005	0.203	0.039	0.005	0.043
2023	0.00000	0.004	0.004	0.000	0.004	0.004

Cambrian Park Plaza San Jose CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**	**Adult**
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information			**Infant/Child**
	Exposure				**Age***	**Cancer**
Exposure	**Duration**		**DPM Conc (ug/m3)**		**Sensitivity**	**Risk**
Year	**(years)**	**Age**	**Year**	**Annual**	**Factor**	**(per million)**
1	1	0.5	2021	0.0677	10	29.39
2	1	0.5 - 1	2022	0.0838	10	36.35
3	1	1 - 2	2023	0.0680	3	3.84
4	1	2 - 3	2024	0.0000	3	0.00
5	1	3 - 4	2025	0.0000	3	0.00
6	1	4 - 5	2026	0.0000	3	0.00
7	1	5 - 6	2027	0.0000	3	0.00
					TOTAL	**69.58**

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.017	**0.359**	**0.443**
0.0135	0.3593	0.4270
0.0168	0.3593	0.4431
0.0136	0.0034	0.0714

Cambrian Park Plaza San Jose CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**	**Adult**
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	**Exposure Duration (years)**	**Age**	**Infant/Child - Exposure Information** DPM Conc (ug/m3) Year	Annual	**Age* Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**
1	1	0.5	2021	0.0037	10	1.62
2	1	0.5 - 1	2022	0.0108	10	4.67
3	1	1 - 2	2023	0.0149	3	0.84
4	1	2 - 3	2024	0.0000	3	0.00
5	1	3 - 4	2025	0.0000	3	0.00
6	1	4 - 5	2026	0.0000	3	0.00
7	1	5 - 6	2027	0.0000	3	0.00
					TOTAL	**7.14**

Maximum Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.003	**0.071**	**0.075**
0.0007	0.0713	0.0750
0.0022	0.0367	0.0475
0.0030	0.0034	0.0183

* Daycare children assumed to be between the ages of 6 months to 6 years old

Cambrian Park Plaza San Jose CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
TrueHeart Family Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**	**Adult**
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	**Exposure Duration (years)**	**Age**	**Infant/Child - Exposure Information** DPM Conc (ug/m3) Year	Annual	**Age* Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**
1	1	0.5	2021	0.0078	10	3.40
2	1	0.5 - 1	2022	0.0097	10	4.21
3	1	1 - 2	2023	0.0079	3	0.44
					TOTAL	**8.06**

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.002	**0.021**	**0.029**
0.0016	0.0207	0.0285
0.0019	0.0099	0.0196
0.0016	0.0002	0.0081

Cambrian Park Plaza San Jose CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
TrueHeart Family Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	**Child**	**Adult**
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	**Exposure Duration (years)**	**Age**	**Infant/Child - Exposure Information DPM Conc (ug/m3) Year**	**Annual**	**Age* Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**		**Maximum Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
								0.000	**0.004**	**0.005**
1	1	0.5	2021	0.0004	10	0.19		0.0001	0.0041	0.0045
2	1	0.5 - 1	2022	0.0013	10	0.54		0.0003	0.0021	0.0034
3	1	1 - 2	2023	0.0017	3	0.10		0.0003	0.0002	0.0019
					TOTAL	**0.83**				

* Daycare children assumed to be between the ages of 6 months to 6 years old

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated Emissions
Impacts at Off-Site Receptors - 5 feet (1.5 meters)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
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 =	0.85	0.85	0.72	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)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0	0.25	-0.25 - 0*	2021	0.0698	10	0.84	2021	0.0698	-	-	**0.017**	**0.425**	**0.491**
1	1	0 - 1	2021	0.0698	10	9.75	2021	0.0698	1	0.20	0.0140	0.4247	0.4909
2	1	1 - 2	2022	0.0864	10	12.06	2022	0.0864	1	0.25	0.0173	0.2037	0.2856
3	1	2 - 3	2023	0.0701	3	1.31	2023	0.0701	1	0.20	0.0140	0.0038	0.1356
4	1	3 - 4			3	0.00	2024		1	0.00			
5	1	4 - 5			3	0.00	2025		1	0.00			
6	1	5 - 6			3	0.00	2026		1	0.00			
7	1	6 - 7			3	0.00	2027		1	0.00			
8	1	7 - 8			3	0.00	2028		1	0.00			
9	1	8 - 9			3	0.00	2029		1	0.00			
10	1	9 - 10			3	0.00	2030		1	0.00			
11	1	10 - 11			3	0.00	2031		1	0.00			
12	1	11 - 12			3	0.00	2032		1	0.00			
13	1	12 - 13			3	0.00	2033		1	0.00			
14	1	13 - 14			3	0.00	2034		1	0.00			
15	1	14 - 15			3	0.00	2035		1	0.00			
16	1	15 - 16			3	0.00	2036		1	0.00			
17	1	16-17			1	0.00	2037		1	0.00			
18	1	17-18			1	0.00	2038		1	0.00			
19	1	18-19			1	0.00	2039		1	0.00			
20	1	19-20			1	0.00	2040		1	0.00			
21	1	20-21			1	0.00	2041		1	0.00			
22	1	21-22			1	0.00	2042		1	0.00			
23	1	22-23			1	0.00	2043		1	0.00			
24	1	23-24			1	0.00	2044		1	0.00			
25	1	24-25			1	0.00	2045		1	0.00			
26	1	25-26			1	0.00	2046		1	0.00			
27	1	26-27			1	0.00	2047		1	0.00			
28	1	27-28			1	0.00	2048		1	0.00			
29	1	28-29			1	0.00	2049		1	0.00			
30	1	29-30			1	0.00	2050		1	0.00			
Total Increased Cancer Risk						**23.96**				**0.65**			

* Third trimester of pregnancy

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Mitigated Emissions
Impacts at Off-Site Receptors - 5 feet (1.5 meters)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
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 =	0.85	0.85	0.72	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)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Annual	Age Sensitivity Factor	Adult Cancer Risk (per million)
0	0.25	-0.25 - 0*	2021	0.0039	10	0.05	2021	0.0039	-	-
1	1	0 - 1	2021	0.0039	10	0.54	2021	0.0039	1	0.01
2	1	1 - 2	2022	0.0111	10	1.55	2022	0.0111	1	0.03
3	1	2 - 3	2023	0.0154	3	0.29	2023	0.0154	1	0.04
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00
Total Increased Cancer Risk						**2.42**				**0.09**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.003	**0.084**	**0.088**
0.001	0.0842	0.0879
0.002	0.0543	0.0539
0.003	0.0040	0.0192

PROJECT OPERATION HRA – Onsite Traffic

File Name:	Onsite Project Traffic_Santa Clara (SF) - 2024 - Annual.EF
CT-EMFAC2017 Vers	1.0.2.27401
Run Date:	9/17/2020 13:55
Area:	Santa Clara (SF)
Analysis Year:	2024
Season:	Annual

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Vehicle Category	VMT Fraction Across Category	Diesel VMT Fractioı Within Category	Gas VMT Fraction Within Category
Truck 1	0.009	0.495	0.505
Truck 2	0.013	0.937	0.048
Non-Truck	0.978	0.014	0.955

*The truck percentage of 2.2% is based on the updated EMFAC2017 Fleet Mix for CalEEMod. The percetnage is based on Santa Clara

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

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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	0.008722	0.005619	0.003791	0.002696	0.002031	0.001623	0.001377	0.00124	0.001185	0.001195	0.001266	0.001399	0.001605	0.001705	0.001705
TOG	0.180164	0.117486	0.079299	0.056403	0.042702	0.034085	0.028581	0.025158	0.02324	0.022529	0.022927	0.024518	0.027557	0.029761	0.029817
Diesel PM	0.000636	0.000522	0.000402	0.000319	0.000273	0.000252	0.00025	0.000264	0.000293	0.000336	0.000394	0.000463	0.000541	0.000541	0.000541

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	0.073728	0.059618	0.048784	0.040584	0.034694	0.030795	0.02852	0.027593	0.027705	0.028498	0.029692	0.03082	0.031767	0.031767	0.031767
Diesel	0.005489	0.004582	0.003585	0.003065	0.002677	0.002364	0.002146	0.001989	0.001896	0.001882	0.001937	0.002047	0.002225	0.002225	0.002225

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

Pollutant Name	Emission Factor
TOG	1.295592

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

Pollutant Name	Emission Factor
PM2.5	0.002072

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

Pollutant Name	Emission Factor
PM2.5	0.016548

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

Pollutant Name	Emission Factor
PM2.5	0.113438

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Alternative 1 Onsite Roadway Inputs

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 1)
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Initial Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
DPM_Main	Main Street	NB/SB	2	248.4	0.15	15.2	50.0	3.4	15	6,619	3,786	40,748	1.256E-09	9.258E-10	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.00040			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	258	4.45E-06	9	6.42%	425	7.32E-06	17	5.62%	372	6.41E-06
2	2.58%	171	2.94E-06	10	7.34%	486	8.37E-06	18	3.27%	216	3.73E-06
3	2.87%	190	3.27E-06	11	6.42%	425	7.32E-06	19	2.35%	156	2.68E-06
4	3.32%	220	3.79E-06	12	6.88%	455	7.85E-06	20	0.86%	57	9.81E-07
5	2.18%	144	2.49E-06	13	6.25%	414	7.13E-06	21	3.09%	205	3.53E-06
6	3.38%	224	3.86E-06	14	6.19%	410	7.06E-06	22	4.13%	273	4.71E-06
7	6.02%	398	6.87E-06	15	5.10%	338	5.82E-06	23	2.52%	167	2.87E-06
8	4.64%	307	5.29E-06	16	3.78%	250	4.31E-06	24	0.92%	61	1.05E-06
								Total		6,621	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 1)
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Initial Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
PM25_Main	Main Street	NB/SB	2	248.4	0.15	15.2	50	1.3	15	6,619	3,786	40,748	1.184E-08	8.731E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.003791			

Emisson Factors from CT-EMFAC2017

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 1)
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_Main	Main Street	NB/SB	2	248.4	0.15	15.2	50	1.3	15	6,619	3,786	40,748	2.477E-07	1.826E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.07930			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	76	2.59E-04	9	7.11%	471	1.60E-03	17	7.39%	489	1.66E-03
2	0.42%	28	9.45E-05	10	4.39%	291	9.88E-04	18	8.18%	541	1.84E-03
3	0.41%	27	9.23E-05	11	4.66%	308	1.05E-03	19	5.70%	377	1.28E-03
4	0.26%	17	5.85E-05	12	5.89%	390	1.33E-03	20	4.27%	283	9.61E-04
5	0.50%	33	1.13E-04	13	6.15%	407	1.38E-03	21	3.26%	216	7.34E-04
6	0.90%	60	2.03E-04	14	6.04%	400	1.36E-03	22	3.30%	218	7.43E-04
7	3.79%	251	8.53E-04	15	7.01%	464	1.58E-03	23	2.46%	163	5.54E-04
8	7.76%	514	1.75E-03	16	7.14%	473	1.61E-03	24	1.87%	124	4.21E-04
								Total		6,620	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 1)
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEVAP_Main	Main Street	NB/SB	2	248.4	0.15	15.2	50	1.3	15	6,619	3,786	40,748	2.698E-07	1.989E-07	2.6	1.21
							75.0									

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle per Hour (g/hour)	1.29559			
Emissions per Vehicle per Mile (g/VMT)	0.08637			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	76	2.82E-04	9	7.11%	471	1.74E-03	17	7.39%	489	1.81E-03
2	0.42%	28	1.03E-04	10	4.39%	291	1.08E-03	18	8.18%	541	2.01E-03
3	0.41%	27	1.00E-04	11	4.66%	308	1.14E-03	19	5.70%	377	1.40E-03
4	0.26%	17	6.37E-05	12	5.89%	390	1.44E-03	20	4.27%	283	1.05E-03
5	0.50%	33	1.23E-04	13	6.15%	407	1.51E-03	21	3.26%	216	7.99E-04
6	0.90%	60	2.21E-04	14	6.04%	400	1.48E-03	22	3.30%	218	8.09E-04
7	3.79%	251	9.29E-04	15	7.01%	464	1.72E-03	23	2.46%	163	6.03E-04
8	7.76%	514	1.90E-03	16	7.14%	473	1.75E-03	24	1.87%	124	4.58E-04
								Total		6,620	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 1)
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_Main	Main Street	NB/SB	2	248.4	0.15	15.2	50	1.3	15	6,619	3,786	40,748	4.125E-07	3.041E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00207			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01655			
Road Dust - Emissions per Vehicle (g/VMT)	0.11344			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.13206			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	76	4.31E-04	9	7.11%	471	2.66E-03	17	7.39%	489	2.77E-03
2	0.42%	28	1.57E-04	10	4.39%	291	1.65E-03	18	8.18%	541	3.07E-03
3	0.41%	27	1.54E-04	11	4.66%	308	1.75E-03	19	5.70%	377	2.14E-03
4	0.26%	17	9.74E-05	12	5.89%	390	2.21E-03	20	4.27%	283	1.60E-03
5	0.50%	33	1.87E-04	13	6.15%	407	2.30E-03	21	3.26%	216	1.22E-03
6	0.90%	60	3.37E-04	14	6.04%	400	2.26E-03	22	3.30%	218	1.24E-03
7	3.79%	251	1.42E-03	15	7.01%	464	2.63E-03	23	2.46%	163	9.22E-04
8	7.76%	514	2.91E-03	16	7.14%	473	2.68E-03	24	1.87%	124	7.01E-04
								Total		6,620	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 1)
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
DPM_New	New Public Street Northbound	NB	2	418.2	0.26	6.1	20.0	3.4	15	1,532	2,549	27,441	7.266E-10	5.357E-10	6.8	3.16

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.00040			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	60	1.73E-06	9	6.42%	98	2.85E-06	17	5.62%	86	2.50E-06
2	2.58%	40	1.15E-06	10	7.34%	112	3.26E-06	18	3.27%	50	1.45E-06
3	2.87%	44	1.28E-06	11	6.42%	98	2.85E-06	19	2.35%	36	1.04E-06
4	3.32%	51	1.48E-06	12	6.88%	105	3.06E-06	20	0.86%	13	3.82E-07
5	2.18%	33	9.69E-07	13	6.25%	96	2.78E-06	21	3.09%	47	1.37E-06
6	3.38%	52	1.50E-06	14	6.19%	95	2.75E-06	22	4.13%	63	1.84E-06
7	6.02%	92	2.68E-06	15	5.10%	78	2.27E-06	23	2.52%	39	1.12E-06
8	4.64%	71	2.06E-06	16	3.78%	58	1.68E-06	24	0.92%	14	4.09E-07
								Total		1,532	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 1)
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
PM25_New	New Public Street Northbound	NB	2	418.2	0.26	6.1	20	1.3	15	1,532	2,549	27,441	6.852E-09	5.052E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.003791			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	18	4.82E-06	9	7.11%	109	2.98E-05	17	7.39%	113	3.10E-05
2	0.42%	6	1.76E-06	10	4.39%	67	1.84E-05	18	8.18%	125	3.43E-05
3	0.41%	6	1.72E-06	11	4.66%	71	1.95E-05	19	5.70%	87	2.39E-05
4	0.26%	4	1.09E-06	12	5.89%	90	2.47E-05	20	4.27%	65	1.79E-05
5	0.50%	8	2.10E-06	13	6.15%	94	2.58E-05	21	3.26%	50	1.37E-05
6	0.90%	14	3.77E-06	14	6.04%	93	2.53E-05	22	3.30%	51	1.38E-05
7	3.79%	58	1.59E-05	15	7.01%	107	2.94E-05	23	2.46%	38	1.03E-05
8	7.76%	119	3.25E-05	16	7.14%	109	2.99E-05	24	1.87%	29	7.84E-06
								Total		1,532	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 1)
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_New	New Public Street Northbound	NB	2	418.2	0.26	6.1	20	1.3	15	1,532	2,549	27,441	1.433E-07	1.057E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.07930			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	18	1.01E-04	9	7.11%	109	6.23E-04	17	7.39%	113	6.48E-04
2	0.42%	6	3.68E-05	10	4.39%	67	3.85E-04	18	8.18%	125	7.17E-04
3	0.41%	6	3.60E-05	11	4.66%	71	4.09E-04	19	5.70%	87	5.00E-04
4	0.26%	4	2.28E-05	12	5.89%	90	5.17E-04	20	4.27%	65	3.74E-04
5	0.50%	8	4.38E-05	13	6.15%	94	5.39E-04	21	3.26%	50	2.86E-04
6	0.90%	14	7.89E-05	14	6.04%	93	5.30E-04	22	3.30%	51	2.89E-04
7	3.79%	58	3.32E-04	15	7.01%	107	6.15E-04	23	2.46%	38	2.16E-04
8	7.76%	119	6.80E-04	16	7.14%	109	6.26E-04	24	1.87%	29	1.64E-04
								Total		1,532	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 1)
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEVAP_New	New Public Street Northbound	NB	2	418.2	0.26	6.1	20	1.3	15	1,532	2,549	27,441	1.561E-07	1.151E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle per Hour (g/hour)	1.29559			
Emissions per Vehicle per Mile (g/VMT)	0.08637			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	18	1.10E-04	9	7.11%	109	6.79E-04	17	7.39%	113	7.06E-04
2	0.42%	6	4.01E-05	10	4.39%	67	4.19E-04	18	8.18%	125	7.81E-04
3	0.41%	6	3.92E-05	11	4.66%	71	4.45E-04	19	5.70%	87	5.44E-04
4	0.26%	4	2.48E-05	12	5.89%	90	5.63E-04	20	4.27%	65	4.08E-04
5	0.50%	8	4.78E-05	13	6.15%	94	5.87E-04	21	3.26%	50	3.11E-04
6	0.90%	14	8.60E-05	14	6.04%	93	5.77E-04	22	3.30%	51	3.15E-04
7	3.79%	58	3.62E-04	15	7.01%	107	6.70E-04	23	2.46%	38	2.35E-04
8	7.76%	119	7.41E-04	16	7.14%	109	6.82E-04	24	1.87%	29	1.79E-04
								Total		1,532	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 1)
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_New	New Public Street Northbound	NB	2	418.2	0.26	6.1	20	1.3	15	1,532	2,549	27,441	2.387E-07	1.760E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00207			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01655			
Road Dust - Emissions per Vehicle (g/VMT)	0.11344			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.13206			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	18	1.68E-04	9	7.11%	109	1.04E-03	17	7.39%	113	1.08E-03
2	0.42%	6	6.13E-05	10	4.39%	67	6.41E-04	18	8.18%	125	1.19E-03
3	0.41%	6	5.99E-05	11	4.66%	71	6.81E-04	19	5.70%	87	8.32E-04
4	0.26%	4	3.80E-05	12	5.89%	90	8.60E-04	20	4.27%	65	6.24E-04
5	0.50%	8	7.30E-05	13	6.15%	94	8.98E-04	21	3.26%	50	4.76E-04
6	0.90%	14	1.31E-04	14	6.04%	93	8.82E-04	22	3.30%	51	4.82E-04
7	3.79%	58	5.53E-04	15	7.01%	107	1.02E-03	23	2.46%	38	3.59E-04
8	7.76%	119	1.13E-03	16	7.14%	109	1.04E-03	24	1.87%	29	2.73E-04
								Total		1,532	

Alternative 2 Onsite Roadway Inputs

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 2)
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
DPM_Main	Main Street	NB/SB	2	880.3	0.55	15.2	50.0	3.4	15	7,435	13,416	144,406	1.410E-09	1.040E-09	6.8	3.16

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.00040			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	290	1.77E-05	9	6.42%	477	2.92E-05	17	5.62%	418	2.55E-05
2	2.58%	192	1.17E-05	10	7.34%	546	3.33E-05	18	3.27%	243	1.49E-05
3	2.87%	213	1.30E-05	11	6.42%	477	2.92E-05	19	2.35%	175	1.07E-05
4	3.32%	247	1.51E-05	12	6.88%	512	3.12E-05	20	0.86%	64	3.91E-06
5	2.18%	162	9.90E-06	13	6.25%	465	2.84E-05	21	3.09%	230	1.40E-05
6	3.38%	251	1.53E-05	14	6.19%	460	2.81E-05	22	4.13%	307	1.88E-05
7	6.02%	448	2.73E-05	15	5.10%	379	2.32E-05	23	2.52%	187	1.14E-05
8	4.64%	345	2.11E-05	16	3.78%	281	1.72E-05	24	0.92%	68	4.18E-06
								Total		7,437	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 2)
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
PM25_Main	Main Street	NB/SB	2	880.3	0.55	15.2	50	1.3	15	7,435	13,416	144,406	1.330E-08	9.807E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.003791			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	86	4.93E-05	9	7.11%	529	3.04E-04	17	7.39%	549	3.16E-04
2	0.42%	31	1.80E-05	10	4.39%	326	1.88E-04	18	8.18%	608	3.50E-04
3	0.41%	30	1.76E-05	11	4.66%	346	2.00E-04	19	5.70%	424	2.44E-04
4	0.26%	19	1.11E-05	12	5.89%	438	2.52E-04	20	4.27%	317	1.83E-04
5	0.50%	37	2.14E-05	13	6.15%	457	2.63E-04	21	3.26%	242	1.40E-04
6	0.90%	67	3.85E-05	14	6.04%	449	2.59E-04	22	3.30%	245	1.41E-04
7	3.79%	282	1.62E-04	15	7.01%	521	3.00E-04	23	2.46%	183	1.05E-04
8	7.76%	577	3.32E-04	16	7.14%	531	3.06E-04	24	1.87%	139	8.01E-05
								Total		7,436	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 2)
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
TEXH_Main	Main Street	NB/SB	2	880.3	0.55	15.2	50	1.3	15	7,435	13,416	144,406	2.782E-07	2.051E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.07930			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	86	1.03E-03	9	7.11%	529	6.37E-03	17	7.39%	549	6.62E-03
2	0.42%	31	3.76E-04	10	4.39%	326	3.93E-03	18	8.18%	608	7.33E-03
3	0.41%	30	3.67E-04	11	4.66%	346	4.17E-03	19	5.70%	424	5.11E-03
4	0.26%	19	2.33E-04	12	5.89%	438	5.28E-03	20	4.27%	317	3.83E-03
5	0.50%	37	4.48E-04	13	6.15%	457	5.51E-03	21	3.26%	242	2.92E-03
6	0.90%	67	8.06E-04	14	6.04%	449	5.41E-03	22	3.30%	245	2.96E-03
7	3.79%	282	3.40E-03	15	7.01%	521	6.28E-03	23	2.46%	183	2.20E-03
8	7.76%	577	6.95E-03	16	7.14%	531	6.40E-03	24	1.87%	139	1.68E-03
								Total		7,436	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 2)
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
TEVAP_Main	Main Street	NB/SB	2	880.3	0.55	15.2	50	1.3	15	7,435	13,416	144,406	3.030E-07	2.234E-07	2.6	1.21
							75.0									

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle per Hour (g/hour)	1.29559			
Emissions per Vehicle per Mile (g/VMT)	0.08637			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	86	1.12E-03	9	7.11%	529	6.94E-03	17	7.39%	549	7.21E-03
2	0.42%	31	4.10E-04	10	4.39%	326	4.28E-03	18	8.18%	608	7.98E-03
3	0.41%	30	4.00E-04	11	4.66%	346	4.55E-03	19	5.70%	424	5.56E-03
4	0.26%	19	2.54E-04	12	5.89%	438	5.75E-03	20	4.27%	317	4.17E-03
5	0.50%	37	4.88E-04	13	6.15%	457	6.00E-03	21	3.26%	242	3.18E-03
6	0.90%	67	8.78E-04	14	6.04%	449	5.89E-03	22	3.30%	245	3.22E-03
7	3.79%	282	3.70E-03	15	7.01%	521	6.84E-03	23	2.46%	183	2.40E-03
8	7.76%	577	7.57E-03	16	7.14%	531	6.97E-03	24	1.87%	139	1.82E-03
								Total		7,436	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - Main Street (Alternative 2)
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
FUG_Main	Main Street	NB/SB	2	880.3	0.55	15.2	50	1.3	15	7,435	13,416	144,406	4.633E-07	3.416E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00207			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01655			
Road Dust - Emissions per Vehicle (g/VMT)	0.11344			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.13206			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_Main

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	86	1.72E-03	9	7.11%	529	1.06E-02	17	7.39%	549	1.10E-02
2	0.42%	31	6.27E-04	10	4.39%	326	6.55E-03	18	8.18%	608	1.22E-02
3	0.41%	30	6.12E-04	11	4.66%	346	6.95E-03	19	5.70%	424	8.50E-03
4	0.26%	19	3.88E-04	12	5.89%	438	8.79E-03	20	4.27%	317	6.37E-03
5	0.50%	37	7.46E-04	13	6.15%	457	9.17E-03	21	3.26%	242	4.86E-03
6	0.90%	67	1.34E-03	14	6.04%	449	9.01E-03	22	3.30%	245	4.92E-03
7	3.79%	282	5.65E-03	15	7.01%	521	1.05E-02	23	2.46%	183	3.67E-03
8	7.76%	577	1.16E-02	16	7.14%	531	1.07E-02	24	1.87%	139	2.79E-03
								Total		7,436	

Early Discoveries CDC – Cambrian Park Daycare Community Risks

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 1 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6
Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}
Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: Year	Concentration (ug/m3): DPM	Concentration (ug/m3): Exhaust TOG	Concentration (ug/m3): Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG	Exhaust TOG	TOTAL
1	1	0.5	2024	0.0004	0.0854	0.0930	10	0.15	0.21	0.01	0.38
2	1	0.5 - 1	2025	0.0004	0.0917	0.0998	10	0.16	0.23	0.01	0.40
3	1	1 - 2	2026	0.0004	0.0917	0.0998	3	0.02	0.03	0.00	0.05
4	1	2 - 3	2027	0.0004	0.0917	0.0998	3	0.02	0.03	0.00	0.05
								0.35	0.50	0.03	0.88

Maximum: Hazard Index	Maximum: Fugitive PM2.5	Maximum: Total PM2.5
0.000	0.142	0.146
0.0001	0.1423	0.1463

* Daycare children assumed to be between the ages of 6 months to 6 years old

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 2)
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Initial Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
DPM_New	New Public Street Northbound	NB	2	880.3	0.55	6.1	20.0	3.4	15	1,496	5,366	57,762	7.095E-10	5.231E-10	6.8	3.16

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.00040			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	58	3.56E-06	9	6.42%	96	5.87E-06	17	5.62%	84	5.14E-06
2	2.58%	39	2.36E-06	10	7.34%	110	6.71E-06	18	3.27%	49	2.99E-06
3	2.87%	43	2.62E-06	11	6.42%	96	5.87E-06	19	2.35%	35	2.15E-06
4	3.32%	50	3.03E-06	12	6.88%	103	6.29E-06	20	0.86%	13	7.86E-07
5	2.18%	33	1.99E-06	13	6.25%	94	5.71E-06	21	3.09%	46	2.82E-06
6	3.38%	51	3.09E-06	14	6.19%	93	5.66E-06	22	4.13%	62	3.77E-06
7	6.02%	90	5.50E-06	15	5.10%	76	4.66E-06	23	2.52%	38	2.30E-06
8	4.64%	69	4.24E-06	16	3.78%	57	3.45E-06	24	0.92%	14	8.41E-07
								Total		1,496	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 2)
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Line Area: Initial Vertical height (m)	Line Area: (Sigma z) Vertical Dimension (m)
PM25_New	New Public Street Northbound	NB	2	880.3	0.55	6.1	20	1.3	15	1,496	5,366	57,762	6.691E-09	4.933E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.003791			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	17	9.91E-06	9	7.11%	106	6.13E-05	17	7.39%	111	6.37E-05
2	0.42%	6	3.62E-06	10	4.39%	66	3.78E-05	18	8.18%	122	7.05E-05
3	0.41%	6	3.53E-06	11	4.66%	70	4.02E-05	19	5.70%	85	4.91E-05
4	0.26%	4	2.24E-06	12	5.89%	88	5.08E-05	20	4.27%	64	3.68E-05
5	0.50%	7	4.31E-06	13	6.15%	92	5.30E-05	21	3.26%	49	2.81E-05
6	0.90%	13	7.76E-06	14	6.04%	90	5.20E-05	22	3.30%	49	2.84E-05
7	3.79%	57	3.27E-05	15	7.01%	105	6.04E-05	23	2.46%	37	2.12E-05
8	7.76%	116	6.69E-05	16	7.14%	107	6.15E-05	24	1.87%	28	1.61E-05
								Total		1,496	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 2)
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_New	New Public Street Northbound	NB	2	880.3	0.55	6.1	20	1.3	15	1,496	5,366	57,762	1.400E-07	1.032E-07	2.6	1.21

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle (g/VMT)	0.07930			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	17	2.07E-04	9	7.11%	106	1.28E-03	17	7.39%	111	1.33E-03
2	0.42%	6	7.57E-05	10	4.39%	66	7.91E-04	18	8.18%	122	1.47E-03
3	0.41%	6	7.39E-05	11	4.66%	70	8.40E-04	19	5.70%	85	1.03E-03
4	0.26%	4	4.69E-05	12	5.89%	88	1.06E-03	20	4.27%	64	7.70E-04
5	0.50%	7	9.01E-05	13	6.15%	92	1.11E-03	21	3.26%	49	5.88E-04
6	0.90%	13	1.62E-04	14	6.04%	90	1.09E-03	22	3.30%	49	5.95E-04
7	3.79%	57	6.83E-04	15	7.01%	105	1.26E-03	23	2.46%	37	4.43E-04
8	7.76%	116	1.40E-03	16	7.14%	107	1.29E-03	24	1.87%	28	3.37E-04
								Total		1,496	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 2)
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEVAP_New	New Public Street Northbound	NB	2	880.3	0.55	6.1	20	1.3	15	1,496	5,366	57,762	1.524E-07	1.124E-07	2.6	1.21

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Emissions per Vehicle per Hour (g/hour)	1.29559			
Emissions per Vehicle per Mile (g/VMT)	0.08637			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	17	2.26E-04	9	7.11%	106	1.40E-03	17	7.39%	111	1.45E-03
2	0.42%	6	8.25E-05	10	4.39%	66	8.62E-04	18	8.18%	122	1.61E-03
3	0.41%	6	8.05E-05	11	4.66%	70	9.15E-04	19	5.70%	85	1.12E-03
4	0.26%	4	5.10E-05	12	5.89%	88	1.16E-03	20	4.27%	64	8.38E-04
5	0.50%	7	9.82E-05	13	6.15%	92	1.21E-03	21	3.26%	49	6.40E-04
6	0.90%	13	1.77E-04	14	6.04%	90	1.19E-03	22	3.30%	49	6.48E-04
7	3.79%	57	7.44E-04	15	7.01%	105	1.38E-03	23	2.46%	37	4.83E-04
8	7.76%	116	1.52E-03	16	7.14%	107	1.40E-03	24	1.87%	28	3.67E-04
								Total		1,496	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Project Operation - New Public Street (Alternative 2)
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_New	New Public Street Northbound	NB	2	880.3	0.55	6.1	20	1.3	15	1,496	5,366	57,762	2.331E-07	1.718E-07	2.6	1.21

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	15			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00207			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01655			
Road Dust - Emissions per Vehicle (g/VMT)	0.11344			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.13206			

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_New

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	17	3.45E-04	9	7.11%	106	2.13E-03	17	7.39%	111	2.22E-03
2	0.42%	6	1.26E-04	10	4.39%	66	1.32E-03	18	8.18%	122	2.46E-03
3	0.41%	6	1.23E-04	11	4.66%	70	1.40E-03	19	5.70%	85	1.71E-03
4	0.26%	4	7.80E-05	12	5.89%	88	1.77E-03	20	4.27%	64	1.28E-03
5	0.50%	7	1.50E-04	13	6.15%	92	1.85E-03	21	3.26%	49	9.79E-04
6	0.90%	13	2.70E-04	14	6.04%	90	1.81E-03	22	3.30%	49	9.91E-04
7	3.79%	57	1.14E-03	15	7.01%	105	2.10E-03	23	2.46%	37	7.38E-04
8	7.76%	116	2.33E-03	16	7.14%	107	2.14E-03	24	1.87%	28	5.61E-04
								Total		1,496	

Early Discoveries CDC – Cambrian Park Daycare Community Risks

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 1 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: Year	Concentration (ug/m3): DPM	Concentration (ug/m3): Exhaust TOG	Concentration (ug/m3): Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG	Exhaust TOG	TOTAL
1	1	0.5	2024	0.0004	0.0854	0.0930	10	0.15	0.21	0.01	0.38
2	1	0.5 - 1	2025	0.0004	0.0917	0.0998	10	0.16	0.23	0.01	0.40
3	1	1 - 2	2026	0.0004	0.0917	0.0998	3	0.02	0.03	0.00	0.05
4	1	2 - 3	2027	0.0004	0.0917	0.0998	3	0.02	0.03	0.00	0.05
								0.35	0.50	0.03	0.88

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.000	**0.142**	**0.146**
0.0001	0.1423	0.1463

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 2 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6
Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}
Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: Year	Concentration (ug/m3): DPM	Exhaust TOG	Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG	Exhaust TOG	TOTAL
1	1	0.5	2024	0.0004	0.0917	0.0998	10	0.16	0.23	0.01	0.40
2	1	0.5 - 1	2025	0.0004	0.0917	0.0998	10	0.16	0.23	0.01	0.40
3	1	1 - 2	2026	0.0004	0.0917	0.0998	3	0.02	0.03	0.00	0.05
4	1	2 - 3	2027	0.0004	0.0917	0.0998	3	0.02	0.03	0.00	0.05
								0.36	0.51	0.03	0.91

Maximum: Hazard Index	Fugitive PM2.5	Total PM2.5
0.000	**0.153**	**0.157**
0.0001	0.1527	0.1570

* Daycare children assumed to be between the ages of 6 months to 6 years old

TrueHeart Daycare Community Risks

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 1 Traffic Volumes)
TrueHeart Family Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: Year	Concentration (ug/m3): DPM	Concentration (ug/m3): Exhaust TOG	Concentration (ug/m3): Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG (per million)	Exhaust TOG (per million)	TOTAL
1	1	0.5	2024	0.0000	0.0080	0.0087	10	0.02	0.02	0.00	0.04
2	1	0.5 - 1	2025	0.0000	0.0080	0.0087	10	0.02	0.02	0.00	0.04
3	1	1 - 2	2026	0.0000	0.0080	0.0087	3	0.00	0.00	0.00	0.00
4	1	2 - 3	2027	0.0000	0.0080	0.0087	3	0.00	0.00	0.00	0.00
								0.04	0.04	0.00	0.09

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0.000	**0.013**	**0.014**
0.0000	0.0132	0.0136

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 2 Traffic Volumes)
TrueHeart Family Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: Year	Concentration (ug/m3): DPM	Concentration (ug/m3): Exhaust TOG	Concentration (ug/m3): Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG (per million)	Exhaust TOG (per million)	TOTAL
1	1	0.5	2024	0.0001	0.0086	0.0093	10	0.02	0.02	0.00	0.04
2	1	0.5 - 1	2025	0.0001	0.0086	0.0093	10	0.02	0.02	0.00	0.04
3	1	1 - 2	2026	0.0001	0.0086	0.0093	3	0.00	0.00	0.00	0.01
4	1	2 - 3	2027	0.0001	0.0086	0.0093	3	0.00	0.00	0.00	0.01
								0.05	0.05	0.00	0.10

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.000	0.014	0.015
0.0000	0.0142	0.0147

Residential Single-Family Home Community Risks

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 1 Traffic Volumes)
Impacts at Off-Site Residential 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	0.85	0.85	0.72	0.73

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

Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2021	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
1	1	0 - 1	2021	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
2	1	1 - 2	2022	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
3	1	2 - 3	2023	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
4	1	3 - 4	2024	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
5	1	4 - 5	2025	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
6	1	5 - 6	2026	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
7	1	6 - 7	2027	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
8	1	7 - 8	2028	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
9	1	8 - 9	2029	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
10	1	9 - 10	2030	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
11	1	10 - 11	2031	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
12	1	11 - 12	2032	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
13	1	12 - 13	2033	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
14	1	13 - 14	2034	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
15	1	14 - 15	2035	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
16	1	15 - 16	2036	3	0.0004	0.0874	0.0952	0.007	0.009	0.0006	0.02
17	1	16-17	2037	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
18	1	17-18	2038	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
19	1	18-19	2039	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
20	1	19-20	2040	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
21	1	20-21	2041	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
22	1	21-22	2042	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
23	1	22-23	2043	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
24	1	23-24	2044	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
25	1	24-25	2045	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
26	1	25-26	2046	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
27	1	26-27	2047	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
28	1	27-28	2048	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
29	1	28-29	2049	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
30	1	29-30	2050	1	0.0004	0.0874	0.0952	0.001	0.001	0.0001	0.003
Total Increased Cancer Risk								0.10	0.141	0.009	**0.25**

* Third trimester of pregnancy

Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.0001	0.1456	0.1498

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Main Street and New Public Street (Alternative 2 Traffic Volumes)
Impacts at Off-Site Residential 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	0.85	0.85	0.72	0.73

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

Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2021	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
1	1	0 - 1	2021	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
2	1	1 - 2	2022	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
3	1	2 - 3	2023	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
4	1	3 - 4	2024	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
5	1	4 - 5	2025	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
6	1	5 - 6	2026	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
7	1	6 - 7	2027	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
8	1	7 - 8	2028	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
9	1	8 - 9	2029	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
10	1	9 - 10	2030	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
11	1	10 - 11	2031	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
12	1	11 - 12	2032	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
13	1	12 - 13	2033	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
14	1	13 - 14	2034	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
15	1	14 - 15	2035	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
16	1	15 - 16	2036	3	0.0004	0.0935	0.1018	0.007	0.010	0.0006	0.02
17	1	16-17	2037	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
18	1	17-18	2038	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
19	1	18-19	2039	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
20	1	19-20	2040	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
21	1	20-21	2041	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
22	1	21-22	2042	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
23	1	22-23	2043	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
24	1	23-24	2044	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
25	1	24-25	2045	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
26	1	25-26	2046	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
27	1	26-27	2047	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
28	1	27-28	2048	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
29	1	28-29	2049	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
30	1	29-30	2050	1	0.0004	0.0935	0.1018	0.001	0.002	0.0001	0.003
Total Increased Cancer Risk								0.11	0.151	0.010	**0.27**

* Third trimester of pregnancy

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.0001	0.1556	0.1601

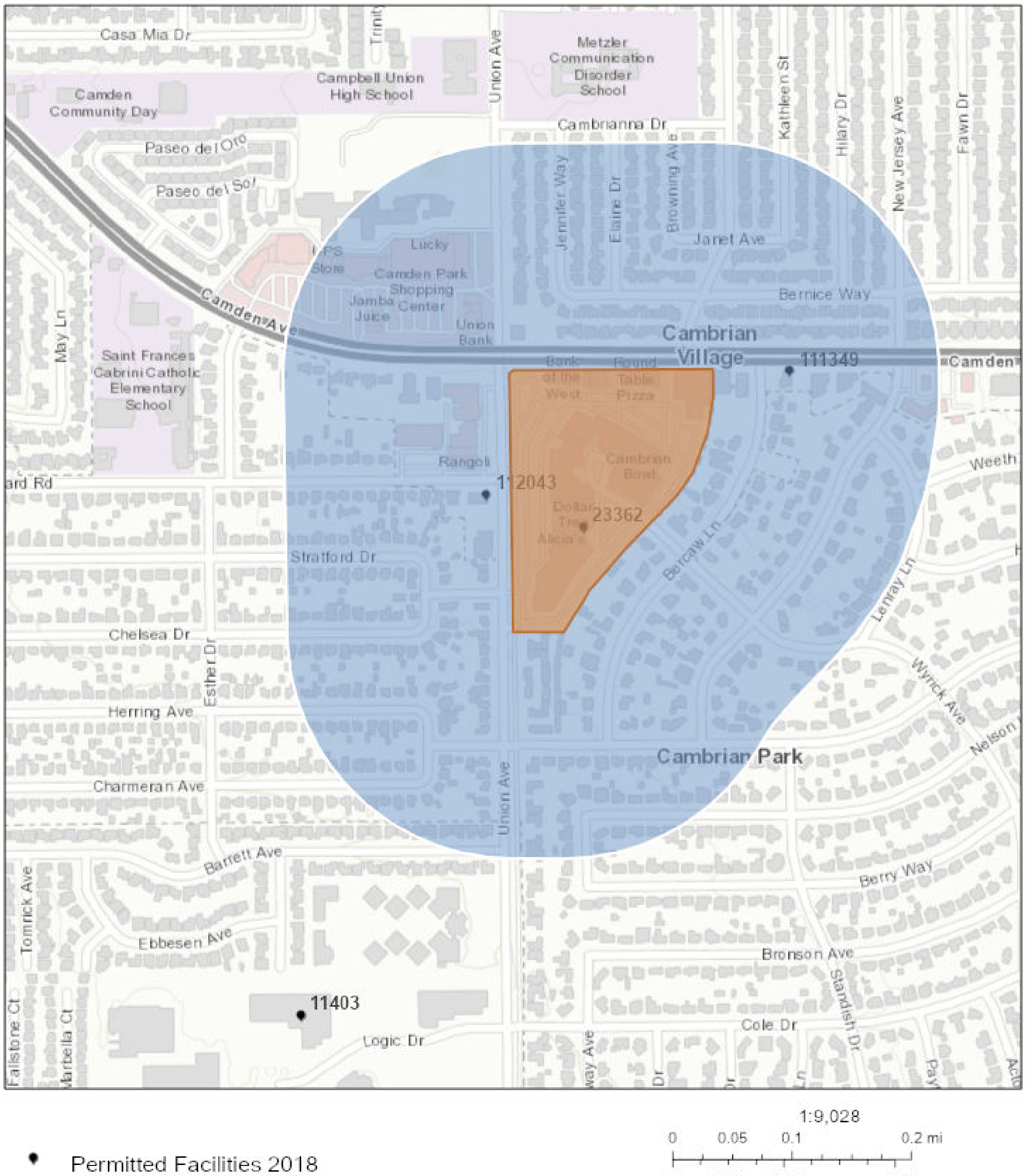
Attachment 5: Cumulative Community Risk from TAC Sources

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 7,537,753.46 ft²

Sep 2 2020 13:54:07 Pacific Daylight Time



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Summary

Name	Count	Area(ft^2)	Length(ft)
Permitted Facilities 2018	3	N/A	N/A

Permitted Facilities 2018

#	FACID	Name	Address	City	St
1	23362	Weingarten Realty	14414 Union Avenue	San Jose	CA
2	111349	Moe's Stop	1948 Camden Ave	San Jose	CA
3	112043	Kwikserv (BMZ Investment Inc)	3707 Union Ave	San Jose	CA

#	Zip	County	Cancer	Hazard	PM_25	Type	Count
1	95124	Santa Clara	0.020	0.000	0.000	Contact BAAQMD	1
2	95124	Santa Clara	53.180	0.230	0.000	Gas Dispensing Facility	1
3	95124	Santa Clara	9.540	0.040	0.000	Gas Dispensing Facility	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.

FID	OBJECTID	FACID	Name	Address	City	St	Zip	County	Cancer	Hazard	PM_25	Type	Latitude	Longitude	x	y
6205	6,205	23362	Weingarten Realty	14414 Uni	San Jose	CA	95124	Santa Clara	0.02	0	0	Contact BA	37.26	-121.93	594860.02	4124212.91
8040	8,040	111349	Moe's Stop	1948 Camc	San Jose	CA	95124	Santa Clara	53.18	0.23	0	Gas Disper	37.261	-121.927	595130.49	4124413.83
8415	8,415	112043	Kwikserv (BMZ Investment Inc)	3707 Unioi	San Jose	CA	95124	Santa Clara	9.54	0.04	0	Gas Disper	37.26	-121.932	594730.35	4124258.12

Screening Risk Adjusted for Distance					
Source Information			*Screening Risks*		
FACID	**Name**	**Type**	**Cancer Risk**	**Hazard Index**	**PM2.5**
23362	Weingarten Realty	Contact BAAQMD	0.02	0.00	0.00
111349	Moe's Stop	Gas Dispensing Facility	53.18	0.23	0.00
112043	Kwikserv (BMZ Investment Inc	Gas Dispensing Facility	9.54	0.04	0.00
Offsite Existing MEI	*Distance*		*Adjusted*		
	Distance from MEI (feet)	**Distance Adjustment**	**Cancer Risk**	**Hazard Index**	**PM2.5**
	N/A	Onsite	-	-	-
	670	0.028	1.48	0.01	0.00
	880	0.018	0.17	0.00	0.00
Onsite Project Sensitive Receptors	*Distance*		*Adjusted*		
	Distance from MEI (feet)	**Distance Adjustment**	**Cancer Risk**	**Hazard Index**	**PM2.5**
	N/A	Onsite	-	-	-
	240	0.14	7.39	0.03	0.00
	170	0.26	2.48	0.01	0.00

Gasoline Dispensing Facility (GDF) Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and chronic hazard index found in the District's Stationary Source Screening Analysis Tool for GDF's, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Gas Station

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard
0	0.0	1.000		0.0000
5	16.4	1.000		0.0000
10	32.8	1.000		0.0000
15	49.2	1.000		0.0000
20	65.6	1.000		0.0000
25	82.0	0.728		0.0000
30	98.4	0.559		0.0000
35	114.8	0.445		0.0000
40	131.2	0.365		0.0000
45	147.6	0.305		0.0000
50	164.0	0.260		0.0000
55	180.4	0.225		0.0000
60	196.9	0.197		0.0000
65	213.3	0.174		0.0000
70	229.7	0.155		0.0000
75	246.1	0.139		0.0000
80	262.5	0.126		0.0000
85	278.9	0.114		0.0000
90	295.3	0.104		0.0000
95	311.7	0.096		0.0000
100	328.1	0.088		0.0000
105	344.5	0.082		0.0000
110	360.9	0.076		0.0000
115	377.3	0.071		0.0000
120	393.7	0.066		0.0000
125	410.1	0.062		0.0000
130	426.5	0.058		0.0000
135	442.9	0.055		0.0000
140	459.3	0.052		0.0000
145	475.7	0.049		0.0000
150	492.1	0.046		0.0000
155	508.5	0.044		0.0000
160	524.9	0.042		0.0000
165	541.3	0.040		0.0000
170	557.7	0.038		0.0000
175	574.1	0.036		0.0000
180	590.6	0.034		0.0000
185	607.0	0.033		0.0000
190	623.4	0.031		0.0000
195	639.8	0.030		0.0000
200	656.2	0.029		0.0000
205	672.6	0.028		0.0000
210	689.0	0.027		0.0000
215	705.4	0.026		0.0000
220	721.8	0.025		0.0000
225	738.2	0.024		0.0000
230	754.6	0.023		0.0000
235	771.0	0.022		0.0000
240	787.4	0.022		0.0000
245	803.8	0.021		0.0000
250	820.2	0.020		0.0000
255	836.6	0.020		0.0000
260	853.0	0.019		0.0000
265	869.4	0.018		0.0000
270	885.8	0.018		0.0000
275	902.2	0.017		0.0000
280	918.6	0.017		0.0000
285	935.0	0.016		0.0000
290	951.4	0.016		0.0000
295	967.8	0.015		0.0000
300	984.3	0.015		0.0000

Diesel Internal Combustion (IC) Engine Distance Multiplier Tool: This distance multiplier tool refines the screening values for cancer risk and PM2.5 concentrations found in the District's Stationary Source Screening Analysis Tool for permitted facilities which contain only diesel IC engines, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Diesel Backup Generator

Distance (meters)	Distance (feet)	Distance adjustment multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
5	16.4	1.000		0		0
10	32.8	1.000		0		0
15	49.2	1.000		0		0
20	65.6	1.000		0		0
25	82.0	0.85		0		0
30	98.4	0.73		0		0
35	114.8	0.64		0		0
40	131.2	0.58		0		0
50	164.0	0.5		0		0
60	196.9	0.41		0		0
70	229.7	0.31		0		0
80	262.5	0.28		0		0
90	295.3	0.25		0		0
100	328.1	0.22		0		0
110	360.9	0.18		0		0
120	393.7	0.16		0		0
130	426.5	0.15		0		0
140	459.3	0.14		0		0
150	492.1	0.12		0		0
160	524.9	0.1		0		0
180	590.6	0.09		0		0
200	656.2	0.08		0		0
220	721.8	0.07		0		0
240	787.4	0.06		0		0
260	853.0	0.05		0		0
280	918.6	0.04		0		0

Generic Distance Multiplier Tool: This distance multiplier tool refines the screening values to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

Generic Case

Distance (meters)	Distance (feet)	Multiplier	Enter Risk or Hazard	Adjusted Risk or Hazard	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
0	0.0	1.000		0		0
5	16.4	1.000		0		0
10	32.8	0.883		0		0
15	49.2	0.855		0		0
20	65.6	0.827		0		0
25	82.0	0.801		0		0
30	98.4	0.775		0		0
35	114.8	0.750		0		0
40	131.2	0.726		0		0
45	147.6	0.702		0		0
50	164.0	0.679		0		0
55	180.4	0.658		0		0
60	196.9	0.636		0		0
65	213.3	0.616		0		0
70	229.7	0.596		0		0
75	246.1	0.577		0		0
80	262.5	0.558		0		0
85	278.9	0.540		0		0
90	295.3	0.523		0		0
95	311.7	0.506		0		0
100	328.1	0.489		0		0
105	344.5	0.474		0		0
110	360.9	0.458		0		0
115	377.3	0.444		0		0
120	393.7	0.429		0		0
125	410.1	0.415		0		0
130	426.5	0.402		0		0
135	442.9	0.389		0		0
140	459.3	0.376		0		0
145	475.7	0.364		0		0
150	492.1	0.353		0		0
155	508.5	0.341		0		0
160	524.9	0.330		0		0
165	541.3	0.319		0		0
170	557.7	0.309		0		0
175	574.1	0.299		0		0
180	590.6	0.290		0		0
185	607.0	0.280		0		0
190	623.4	0.271		0		0
195	639.8	0.262		0		0
200	656.2	0.254		0		0
205	672.6	0.246		0		0
210	689.0	0.238		0		0
215	705.4	0.230		0		0
220	721.8	0.223		0		0
225	738.2	0.216		0		0
230	754.6	0.209		0		0
235	771.0	0.202		0		0
240	787.4	0.195		0		0
245	803.8	0.189		0		0
250	820.2	0.183		0		0
255	836.6	0.177		0		0
260	853.0	0.171		0		0
265	869.4	0.166		0		0
270	885.8	0.160		0		0
275	902.2	0.155		0		0
280	918.6	0.150		0		0
285	935.0	0.145		0		0
290	951.4	0.141		0		0
295	967.8	0.136		0		0
300	984.3	0.132		0		0

CUMULATIVE ROADWAY HRA – CAMDEN AVENUE AND UNION AVENUE

File Name:	Cambrian Park Plaza_Santa Clara (SF) - 2024 - Annual.EF
CT-EMFAC2017 Version:	1.0.2.27401
Run Date:	9/14/2020 12:34
Area:	Santa Clara (SF)
Analysis Year:	2024
Season:	Annual

===

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.026	0.495	0.505
Truck 2	0.036	0.937	0.048
Non-Truck	0.938	0.014	0.955

===

Road Type:	Major/Collector		
Silt Loading Factor:	CARB	0.032 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	0.009055	0.005937	0.004059	0.002926	0.002242	0.001833	0.001603	0.001499	0.001493	0.001568	0.001721	0.001952	0.002272	0.002375	0.002375
TOG	0.187931	0.123609	0.082483	0.057954	0.043756	0.034879	0.029177	0.025607	0.023582	0.022802	0.02316	0.024758	0.02783	0.030083	0.030231
Diesel PM	0.001252	0.001022	0.000793	0.000637	0.00055	0.000516	0.000522	0.000565	0.000641	0.00075	0.000892	0.00106	0.001253	0.001253	0.001253

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	0.073111	0.059126	0.04838	0.040247	0.034406	0.030539	0.028284	0.027365	0.027475	0.028262	0.029446	0.030535	0.031451	0.031451	0.031451
Diesel	0.012676	0.010562	0.008188	0.00703	0.006152	0.005433	0.004931	0.004563	0.004345	0.004314	0.004439	0.004687	0.005084	0.005084	0.005084

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

Pollutant Name	Emission Factor
TOG	1.314612

===

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

Pollutant Name	Emission Factor
PM2.5	0.002189

===

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

Pollutant Name	Emission Factor
PM2.5	0.017344

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

Pollutant Name	Emission Factor
PM2.5	0.016811

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

Alternative 1 Roadway Inputs

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
DPM_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	55.7	3.4	40	18,118	14,941	160,825	4.337E-09	3.198E-09	6.8	3.16
DPM_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	55.7	3.4	40	18,118	14,995	161,410	4.337E-09	3.198E-09	6.8	3.16
									Total	36,235						

Emission Factors

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle (g/VMT)	0.00057

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	707	6.07E-05	9	6.42%	1163	9.99E-05	17	5.62%	1018	8.74E-05
2	2.58%	467	4.01E-05	10	7.34%	1330	1.14E-04	18	3.27%	592	5.09E-05
3	2.87%	520	4.46E-05	11	6.42%	1163	9.99E-05	19	2.35%	426	3.66E-05
4	3.32%	602	5.16E-05	12	6.88%	1246	1.07E-04	20	0.86%	156	1.34E-05
5	2.18%	395	3.39E-05	13	6.25%	1132	9.72E-05	21	3.09%	560	4.81E-05
6	3.38%	612	5.26E-05	14	6.19%	1121	9.63E-05	22	4.13%	748	6.42E-05
7	6.02%	1091	9.36E-05	15	5.10%	924	7.93E-05	23	2.52%	457	3.92E-05
8	4.64%	841	7.22E-05	16	3.78%	685	5.88E-05	24	0.92%	167	1.43E-05
								Total		18,123	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	707	6.09E-05	9	6.42%	1163	1.00E-04	17	5.62%	1018	8.77E-05
2	2.58%	467	4.03E-05	10	7.34%	1330	1.15E-04	18	3.27%	592	5.10E-05
3	2.87%	520	4.48E-05	11	6.42%	1163	1.00E-04	19	2.35%	426	3.67E-05
4	3.32%	602	5.18E-05	12	6.88%	1246	1.07E-04	20	0.86%	156	1.34E-05
5	2.18%	395	3.40E-05	13	6.25%	1132	9.76E-05	21	3.09%	560	4.82E-05
6	3.38%	612	5.28E-05	14	6.19%	1121	9.66E-05	22	4.13%	748	6.45E-05
7	6.02%	1091	9.40E-05	15	5.10%	924	7.96E-05	23	2.52%	457	3.93E-05
8	4.64%	841	7.24E-05	16	3.78%	685	5.90E-05	24	0.92%	167	1.44E-05
								Total		18,123	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
PM25_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,118	14,941	160,825	1.151E-08	8.485E-09	2.6	1.21
PM25_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,118	14,995	161,410	1.151E-08	8.485E-09	2.6	1.21

Emission Factors - PM2.5

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle (g/VMT)	0.001499

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	208	4.75E-05	9	7.11%	1288	2.93E-04	17	7.39%	1339	3.05E-04
2	0.42%	76	1.73E-05	10	4.39%	795	1.81E-04	18	8.18%	1482	3.38E-04
3	0.41%	74	1.69E-05	11	4.66%	844	1.92E-04	19	5.70%	1033	2.35E-04
4	0.26%	47	1.07E-05	12	5.89%	1067	2.43E-04	20	4.27%	774	1.76E-04
5	0.50%	91	2.06E-05	13	6.15%	1114	2.54E-04	21	3.26%	591	1.35E-04
6	0.90%	163	3.71E-05	14	6.04%	1094	2.49E-04	22	3.30%	598	1.36E-04
7	3.79%	687	1.56E-04	15	7.01%	1270	2.89E-04	23	2.46%	446	1.02E-04
8	7.76%	1406	3.20E-04	16	7.14%	1294	2.95E-04	24	1.87%	339	7.72E-05
								Total		18,119	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	208	4.76E-05	9	7.11%	1288	2.94E-04	17	7.39%	1339	3.06E-04
2	0.42%	76	1.74E-05	10	4.39%	795	1.82E-04	18	8.18%	1482	3.39E-04
3	0.41%	74	1.70E-05	11	4.66%	844	1.93E-04	19	5.70%	1033	2.36E-04
4	0.26%	47	1.08E-05	12	5.89%	1067	2.44E-04	20	4.27%	774	1.77E-04
5	0.50%	91	2.07E-05	13	6.15%	1114	2.55E-04	21	3.26%	591	1.35E-04
6	0.90%	163	3.73E-05	14	6.04%	1094	2.50E-04	22	3.30%	598	1.37E-04
7	3.79%	687	1.57E-04	15	7.01%	1270	2.90E-04	23	2.46%	446	1.02E-04
8	7.76%	1406	3.21E-04	16	7.14%	1294	2.96E-04	24	1.87%	339	7.74E-05
								Total		18,119	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,118	14,941	160,825	1.966E-07	1.449E-07	2.6	1.21
TEXH_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,118	14,995	161,410	1.966E-07	1.449E-07	2.6	1.21
									Total	36,235						

Emission Factors - TOG Exhaust

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle (g/VMT)	0.02561

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	208	8.11E-04	9	7.11%	1288	5.01E-03	17	7.39%	1339	5.21E-03
2	0.42%	76	2.96E-04	10	4.39%	795	3.09E-03	18	8.18%	1482	5.77E-03
3	0.41%	74	2.89E-04	11	4.66%	844	3.28E-03	19	5.70%	1033	4.02E-03
4	0.26%	47	1.83E-04	12	5.89%	1067	4.15E-03	20	4.27%	774	3.01E-03
5	0.50%	91	3.52E-04	13	6.15%	1114	4.34E-03	21	3.26%	591	2.30E-03
6	0.90%	163	6.34E-04	14	6.04%	1094	4.26E-03	22	3.30%	598	2.33E-03
7	3.79%	687	2.67E-03	15	7.01%	1270	4.94E-03	23	2.46%	446	1.73E-03
8	7.76%	1406	5.47E-03	16	7.14%	1294	5.03E-03	24	1.87%	339	1.32E-03
								Total		18,119	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	208	8.14E-04	9	7.11%	1288	5.03E-03	17	7.39%	1339	5.23E-03
2	0.42%	76	2.97E-04	10	4.39%	795	3.11E-03	18	8.18%	1482	5.79E-03
3	0.41%	74	2.90E-04	11	4.66%	844	3.30E-03	19	5.70%	1033	4.03E-03
4	0.26%	47	1.84E-04	12	5.89%	1067	4.17E-03	20	4.27%	774	3.02E-03
5	0.50%	91	3.54E-04	13	6.15%	1114	4.35E-03	21	3.26%	591	2.31E-03
6	0.90%	163	6.37E-04	14	6.04%	1094	4.27E-03	22	3.30%	598	2.33E-03
7	3.79%	687	2.68E-03	15	7.01%	1270	4.96E-03	23	2.46%	446	1.74E-03
8	7.76%	1406	5.49E-03	16	7.14%	1294	5.05E-03	24	1.87%	339	1.32E-03
								Total		18,119	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEVAP_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,118	14,941	160,825	2.523E-07	1.860E-07	2.6	1.21
TEVAP_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,118	14,995	161,410	2.523E-07	1.860E-07	2.6	1.21
									Total	36,235						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle per Hour (g/hour)	1.31461
Emissions per Vehicle per Mile (g/VMT)	0.03287

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	208	1.04E-03	9	7.11%	1288	6.43E-03	17	7.39%	1339	6.69E-03
2	0.42%	76	3.80E-04	10	4.39%	795	3.97E-03	18	8.18%	1482	7.40E-03
3	0.41%	74	3.71E-04	11	4.66%	844	4.22E-03	19	5.70%	1033	5.16E-03
4	0.26%	47	2.35E-04	12	5.89%	1067	5.33E-03	20	4.27%	774	3.86E-03
5	0.50%	91	4.52E-04	13	6.15%	1114	5.56E-03	21	3.26%	591	2.95E-03
6	0.90%	163	8.14E-04	14	6.04%	1094	5.46E-03	22	3.30%	598	2.99E-03
7	3.79%	687	3.43E-03	15	7.01%	1270	6.34E-03	23	2.46%	446	2.23E-03
8	7.76%	1406	7.02E-03	16	7.14%	1294	6.46E-03	24	1.87%	339	1.69E-03
								Total		18,119	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	208	1.04E-03	9	7.11%	1288	6.46E-03	17	7.39%	1339	6.71E-03
2	0.42%	76	3.81E-04	10	4.39%	795	3.99E-03	18	8.18%	1482	7.43E-03
3	0.41%	74	3.72E-04	11	4.66%	844	4.23E-03	19	5.70%	1033	5.18E-03
4	0.26%	47	2.36E-04	12	5.89%	1067	5.35E-03	20	4.27%	774	3.88E-03
5	0.50%	91	4.54E-04	13	6.15%	1114	5.58E-03	21	3.26%	591	2.96E-03
6	0.90%	163	8.17E-04	14	6.04%	1094	5.48E-03	22	3.30%	598	3.00E-03
7	3.79%	687	3.44E-03	15	7.01%	1270	6.37E-03	23	2.46%	446	2.23E-03
8	7.76%	1406	7.05E-03	16	7.14%	1294	6.48E-03	24	1.87%	339	1.70E-03
								Total		18,119	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,118	14,941	160,825	2.790E-07	2.057E-07	2.6	1.21
FUG_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,118	14,995	161,410	2.790E-07	2.057E-07	2.6	1.21
									Total	36,235						

Emission Factors - Fugitive PM2.5

Speed Category	1
Travel Speed (mph)	40
Tire Wear - Emissions per Vehicle (g/VMT)	0.00219
Brake Wear - Emissions per Vehicle (g/VMT)	0.01734
Road Dust - Emissions per Vehicle (g/VMT)	0.01681
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03634

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	208	1.15E-03	9	7.11%	1288	7.11E-03	17	7.39%	1339	7.39E-03
2	0.42%	76	4.20E-04	10	4.39%	795	4.39E-03	18	8.18%	1482	8.18E-03
3	0.41%	74	4.10E-04	11	4.66%	844	4.66E-03	19	5.70%	1033	5.70E-03
4	0.26%	47	2.60E-04	12	5.89%	1067	5.89E-03	20	4.27%	774	4.27E-03
5	0.50%	91	5.00E-04	13	6.15%	1114	6.15E-03	21	3.26%	591	3.26E-03
6	0.90%	163	9.00E-04	14	6.04%	1094	6.04E-03	22	3.30%	598	3.30E-03
7	3.79%	687	3.79E-03	15	7.01%	1270	7.01E-03	23	2.46%	446	2.46E-03
8	7.76%	1406	7.76E-03	16	7.14%	1294	7.14E-03	24	1.87%	339	1.87E-03
								Total		18,119	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	208	1.15E-03	9	7.11%	1288	7.14E-03	17	7.39%	1339	7.42E-03
2	0.42%	76	4.22E-04	10	4.39%	795	4.41E-03	18	8.18%	1482	8.21E-03
3	0.41%	74	4.12E-04	11	4.66%	844	4.68E-03	19	5.70%	1033	5.72E-03
4	0.26%	47	2.61E-04	12	5.89%	1067	5.91E-03	20	4.27%	774	4.29E-03
5	0.50%	91	5.02E-04	13	6.15%	1114	6.18E-03	21	3.26%	591	3.27E-03
6	0.90%	163	9.04E-04	14	6.04%	1094	6.06E-03	22	3.30%	598	3.31E-03
7	3.79%	687	3.81E-03	15	7.01%	1270	7.04E-03	23	2.46%	446	2.47E-03
8	7.76%	1406	7.79E-03	16	7.14%	1294	7.17E-03	24	1.87%	339	1.88E-03
								Total		18,119	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
DPM_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	43.7	3.4	35	9,900	12,784	137,605	3.021E-09	2.228E-09	6.8	3.16
DPM_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	43.7	3.4	35	9,900	12,789	137,662	3.021E-09	2.228E-09	6.8	3.16
									Total	19,800						

Emission Factors

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle (g/VMT)	0.00057

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	386	3.62E-05	9	6.42%	636	5.95E-05	17	5.62%	556	5.21E-05
2	2.58%	255	2.39E-05	10	7.34%	727	6.80E-05	18	3.27%	324	3.03E-05
3	2.87%	284	2.66E-05	11	6.42%	636	5.95E-05	19	2.35%	233	2.18E-05
4	3.32%	329	3.08E-05	12	6.88%	681	6.38E-05	20	0.86%	85	7.97E-06
5	2.18%	216	2.02E-05	13	6.25%	619	5.79E-05	21	3.09%	306	2.86E-05
6	3.38%	335	3.13E-05	14	6.19%	613	5.74E-05	22	4.13%	409	3.83E-05
7	6.02%	596	5.58E-05	15	5.10%	505	4.73E-05	23	2.52%	249	2.34E-05
8	4.64%	459	4.30E-05	16	3.78%	374	3.50E-05	24	0.92%	91	8.53E-06
								Total		9,903	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	386	3.62E-05	9	6.42%	636	5.95E-05	17	5.62%	556	5.21E-05
2	2.58%	255	2.39E-05	10	7.34%	727	6.81E-05	18	3.27%	324	3.03E-05
3	2.87%	284	2.66E-05	11	6.42%	636	5.95E-05	19	2.35%	233	2.18E-05
4	3.32%	329	3.08E-05	12	6.88%	681	6.38E-05	20	0.86%	85	7.97E-06
5	2.18%	216	2.02E-05	13	6.25%	619	5.80E-05	21	3.09%	306	2.87E-05
6	3.38%	335	3.13E-05	14	6.19%	613	5.74E-05	22	4.13%	409	3.83E-05
7	6.02%	596	5.58E-05	15	5.10%	505	4.73E-05	23	2.52%	249	2.34E-05
8	4.64%	459	4.30E-05	16	3.78%	374	3.51E-05	24	0.92%	91	8.53E-06
								Total		9,903	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Line Area Initial Vertical height (m)	Line Area (Sigma z) Vertical Dimension (m)
PM25_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	9,900	12,784	137,605	8.015E-09	5.910E-09	2.6	1.21
PM25_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	9,900	12,789	137,662	8.015E-09	5.910E-09	2.6	1.21
									Total	19,800						

Emission Factors - PM2.5

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle (g/VMT)	0.001499

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	114	2.83E-05	9	7.11%	704	1.75E-04	17	7.39%	732	1.82E-04
2	0.42%	42	1.03E-05	10	4.39%	435	1.08E-04	18	8.18%	810	2.01E-04
3	0.41%	41	1.01E-05	11	4.66%	461	1.15E-04	19	5.70%	564	1.40E-04
4	0.26%	26	6.39E-06	12	5.89%	583	1.45E-04	20	4.27%	423	1.05E-04
5	0.50%	50	1.23E-05	13	6.15%	609	1.51E-04	21	3.26%	323	8.02E-05
6	0.90%	89	2.21E-05	14	6.04%	598	1.49E-04	22	3.30%	327	8.12E-05
7	3.79%	375	9.32E-05	15	7.01%	694	1.72E-04	23	2.46%	244	6.05E-05
8	7.76%	768	1.91E-04	16	7.14%	707	1.76E-04	24	1.87%	185	4.60E-05
								Total		9,901	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	114	2.83E-05	9	7.11%	704	1.75E-04	17	7.39%	732	1.82E-04
2	0.42%	42	1.03E-05	10	4.39%	435	1.08E-04	18	8.18%	810	2.01E-04
3	0.41%	41	1.01E-05	11	4.66%	461	1.15E-04	19	5.70%	564	1.40E-04
4	0.26%	26	6.40E-06	12	5.89%	583	1.45E-04	20	4.27%	423	1.05E-04
5	0.50%	50	1.23E-05	13	6.15%	609	1.51E-04	21	3.26%	323	8.02E-05
6	0.90%	89	2.21E-05	14	6.04%	598	1.49E-04	22	3.30%	327	8.12E-05
7	3.79%	375	9.32E-05	15	7.01%	694	1.72E-04	23	2.46%	244	6.05E-05
8	7.76%	768	1.91E-04	16	7.14%	707	1.76E-04	24	1.87%	185	4.60E-05
								Total		9,901	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	9,900	12,784	137,605	1.369E-07	1.010E-07	2.6	1.21
TEXH_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	9,900	12,789	137,662	1.369E-07	1.010E-07	2.6	1.21
									Total	19,800						

Emission Factors - TOG Exhaust

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle (g/VMT)	0.02561

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	114	4.83E-04	9	7.11%	704	2.99E-03	17	7.39%	732	3.10E-03
2	0.42%	42	1.76E-04	10	4.39%	435	1.84E-03	18	8.18%	810	3.44E-03
3	0.41%	41	1.72E-04	11	4.66%	461	1.96E-03	19	5.70%	564	2.39E-03
4	0.26%	26	1.09E-04	12	5.89%	583	2.47E-03	20	4.27%	423	1.79E-03
5	0.50%	50	2.10E-04	13	6.15%	609	2.58E-03	21	3.26%	323	1.37E-03
6	0.90%	89	3.78E-04	14	6.04%	598	2.54E-03	22	3.30%	327	1.39E-03
7	3.79%	375	1.59E-03	15	7.01%	694	2.94E-03	23	2.46%	244	1.03E-03
8	7.76%	768	3.26E-03	16	7.14%	707	3.00E-03	24	1.87%	185	7.86E-04
								Total		9,901	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	114	4.83E-04	9	7.11%	704	2.99E-03	17	7.39%	732	3.11E-03
2	0.42%	42	1.77E-04	10	4.39%	435	1.85E-03	18	8.18%	810	3.44E-03
3	0.41%	41	1.72E-04	11	4.66%	461	1.96E-03	19	5.70%	564	2.40E-03
4	0.26%	26	1.09E-04	12	5.89%	583	2.48E-03	20	4.27%	423	1.79E-03
5	0.50%	50	2.10E-04	13	6.15%	609	2.58E-03	21	3.26%	323	1.37E-03
6	0.90%	89	3.78E-04	14	6.04%	598	2.54E-03	22	3.30%	327	1.39E-03
7	3.79%	375	1.59E-03	15	7.01%	694	2.95E-03	23	2.46%	244	1.03E-03
8	7.76%	768	3.26E-03	16	7.14%	707	3.00E-03	24	1.87%	185	7.86E-04
								Total		9,901	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEV_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	9,900	12,784	137,605	2.008E-07	1.481E-07	2.6	1.21
TEV_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	9,900	12,789	137,662	2.008E-07	1.481E-07	2.6	1.21
									Total	19,800						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle per Hour (g/hour)	1.31461
Emissions per Vehicle per Mile (g/VMT)	0.03756

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEV_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	114	7.09E-04	9	7.11%	704	4.38E-03	17	7.39%	732	4.55E-03
2	0.42%	42	2.59E-04	10	4.39%	435	2.71E-03	18	8.18%	810	5.04E-03
3	0.41%	41	2.53E-04	11	4.66%	461	2.87E-03	19	5.70%	564	3.51E-03
4	0.26%	26	1.60E-04	12	5.89%	583	3.63E-03	20	4.27%	423	2.63E-03
5	0.50%	50	3.08E-04	13	6.15%	609	3.79E-03	21	3.26%	323	2.01E-03
6	0.90%	89	5.55E-04	14	6.04%	598	3.72E-03	22	3.30%	327	2.03E-03
7	3.79%	375	2.34E-03	15	7.01%	694	4.32E-03	23	2.46%	244	1.52E-03
8	7.76%	768	4.78E-03	16	7.14%	707	4.40E-03	24	1.87%	185	1.15E-03
								Total		9,901	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEV_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	114	7.09E-04	9	7.11%	704	4.38E-03	17	7.39%	732	4.56E-03
2	0.42%	42	2.59E-04	10	4.39%	435	2.71E-03	18	8.18%	810	5.04E-03
3	0.41%	41	2.53E-04	11	4.66%	461	2.87E-03	19	5.70%	564	3.51E-03
4	0.26%	26	1.60E-04	12	5.89%	583	3.63E-03	20	4.27%	423	2.63E-03
5	0.50%	50	3.08E-04	13	6.15%	609	3.79E-03	21	3.26%	323	2.01E-03
6	0.90%	89	5.55E-04	14	6.04%	598	3.72E-03	22	3.30%	327	2.03E-03
7	3.79%	375	2.34E-03	15	7.01%	694	4.32E-03	23	2.46%	244	1.52E-03
8	7.76%	768	4.78E-03	16	7.14%	707	4.40E-03	24	1.87%	185	1.15E-03
								Total		9,901	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	9,900	12,784	137,605	1.943E-07	1.433E-07	2.6	1.21
FUG_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	9,900	12,789	137,662	1.943E-07	1.433E-07	2.6	1.21
									Total	19,800						

Emission Factors - Fugitive PM2.5

Speed Category	1
Travel Speed (mph)	35
Tire Wear - Emissions per Vehicle (g/VMT)	0.00219
Brake Wear - Emissions per Vehicle (g/VMT)	0.01734
Road Dust - Emissions per Vehicle (g/VMT)	0.01681
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03634

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	114	6.86E-04	9	7.11%	704	4.24E-03	17	7.39%	732	4.41E-03
2	0.42%	42	2.50E-04	10	4.39%	435	2.62E-03	18	8.18%	810	4.88E-03
3	0.41%	41	2.44E-04	11	4.66%	461	2.78E-03	19	5.70%	564	3.40E-03
4	0.26%	26	1.55E-04	12	5.89%	583	3.51E-03	20	4.27%	423	2.55E-03
5	0.50%	50	2.98E-04	13	6.15%	609	3.67E-03	21	3.26%	323	1.94E-03
6	0.90%	89	5.37E-04	14	6.04%	598	3.60E-03	22	3.30%	327	1.97E-03
7	3.79%	375	2.26E-03	15	7.01%	694	4.18E-03	23	2.46%	244	1.47E-03
8	7.76%	768	4.63E-03	16	7.14%	707	4.26E-03	24	1.87%	185	1.11E-03
								Total		9,901	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	114	6.86E-04	9	7.11%	704	4.24E-03	17	7.39%	732	4.41E-03
2	0.42%	42	2.51E-04	10	4.39%	435	2.62E-03	18	8.18%	810	4.88E-03
3	0.41%	41	2.45E-04	11	4.66%	461	2.78E-03	19	5.70%	564	3.40E-03
4	0.26%	26	1.55E-04	12	5.89%	583	3.51E-03	20	4.27%	423	2.55E-03
5	0.50%	50	2.98E-04	13	6.15%	609	3.67E-03	21	3.26%	323	1.94E-03
6	0.90%	89	5.37E-04	14	6.04%	598	3.60E-03	22	3.30%	327	1.97E-03
7	3.79%	375	2.26E-03	15	7.01%	694	4.18E-03	23	2.46%	244	1.47E-03
8	7.76%	768	4.63E-03	16	7.14%	707	4.26E-03	24	1.87%	185	1.12E-03
								Total		9,901	

Alternative 2 Roadway Inputs

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
DPM_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	55.7	3.4	40	18,200	14,941	160,825	4.357E-09	3.213E-09	6.8	3.16
DPM_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	55.7	3.4	40	18,200	14,995	161,410	4.357E-09	3.213E-09	6.8	3.16
									Total	36,400						

Emission Factors

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle (g/VMT)	0.00057

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	710	6.09E-05	9	6.42%	1168	1.00E-04	17	5.62%	1023	8.78E-05
2	2.58%	470	4.03E-05	10	7.34%	1336	1.15E-04	18	3.27%	595	5.11E-05
3	2.87%	522	4.48E-05	11	6.42%	1168	1.00E-04	19	2.35%	428	3.67E-05
4	3.32%	604	5.19E-05	12	6.88%	1252	1.07E-04	20	0.86%	157	1.34E-05
5	2.18%	397	3.41E-05	13	6.25%	1138	9.77E-05	21	3.09%	562	4.83E-05
6	3.38%	615	5.28E-05	14	6.19%	1127	9.67E-05	22	4.13%	752	6.45E-05
7	6.02%	1096	9.41E-05	15	5.10%	928	7.97E-05	23	2.52%	459	3.94E-05
8	4.64%	844	7.25E-05	16	3.78%	688	5.91E-05	24	0.92%	167	1.44E-05
								Total		18,205	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	710	6.12E-05	9	6.42%	1168	1.01E-04	17	5.62%	1023	8.81E-05
2	2.58%	470	4.05E-05	10	7.34%	1336	1.15E-04	18	3.27%	595	5.13E-05
3	2.87%	522	4.50E-05	11	6.42%	1168	1.01E-04	19	2.35%	428	3.69E-05
4	3.32%	604	5.21E-05	12	6.88%	1252	1.08E-04	20	0.86%	157	1.35E-05
5	2.18%	397	3.42E-05	13	6.25%	1138	9.80E-05	21	3.09%	562	4.85E-05
6	3.38%	615	5.30E-05	14	6.19%	1127	9.71E-05	22	4.13%	752	6.48E-05
7	6.02%	1096	9.44E-05	15	5.10%	928	8.00E-05	23	2.52%	459	3.95E-05
8	4.64%	844	7.28E-05	16	3.78%	688	5.93E-05	24	0.92%	167	1.44E-05
								Total		18,205	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
PM25_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,200	14,941	160,825	1.156E-08	8.523E-09	2.6	1.21
PM25_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,200	14,995	161,410	1.156E-08	8.523E-09	2.6	1.21
									Total	36,400						

Emission Factors - PM2.5

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle (g/VMT)	0.001499

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	209	4.77E-05	9	7.11%	1294	2.95E-04	17	7.39%	1345	3.06E-04
2	0.42%	76	1.74E-05	10	4.39%	799	1.82E-04	18	8.18%	1489	3.39E-04
3	0.41%	75	1.70E-05	11	4.66%	848	1.93E-04	19	5.70%	1037	2.36E-04
4	0.26%	47	1.08E-05	12	5.89%	1072	2.44E-04	20	4.27%	777	1.77E-04
5	0.50%	91	2.07E-05	13	6.15%	1119	2.55E-04	21	3.26%	593	1.35E-04
6	0.90%	164	3.73E-05	14	6.04%	1099	2.50E-04	22	3.30%	601	1.37E-04
7	3.79%	690	1.57E-04	15	7.01%	1276	2.91E-04	23	2.46%	448	1.02E-04
8	7.76%	1412	3.22E-04	16	7.14%	1299	2.96E-04	24	1.87%	340	7.75E-05
								Total		18,202	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	209	4.78E-05	9	7.11%	1294	2.96E-04	17	7.39%	1345	3.07E-04
2	0.42%	76	1.75E-05	10	4.39%	799	1.83E-04	18	8.18%	1489	3.40E-04
3	0.41%	75	1.71E-05	11	4.66%	848	1.94E-04	19	5.70%	1037	2.37E-04
4	0.26%	47	1.08E-05	12	5.89%	1072	2.45E-04	20	4.27%	777	1.78E-04
5	0.50%	91	2.08E-05	13	6.15%	1119	2.56E-04	21	3.26%	593	1.36E-04
6	0.90%	164	3.74E-05	14	6.04%	1099	2.51E-04	22	3.30%	601	1.37E-04
7	3.79%	690	1.58E-04	15	7.01%	1276	2.92E-04	23	2.46%	448	1.02E-04
8	7.76%	1412	3.23E-04	16	7.14%	1299	2.97E-04	24	1.87%	340	7.78E-05
								Total		18,202	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

												Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,200	14,941	160,825	1.975E-07	1.456E-07	2.6	1.21
TEXH_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,200	14,995	161,410	1.975E-07	1.456E-07	2.6	1.21
									Total	36,400						

Emission Factors - TOG Exhaust

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle (g/VMT)	0.02561

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	209	8.14E-04	9	7.11%	1294	5.03E-03	17	7.39%	1345	5.23E-03
2	0.42%	76	2.97E-04	10	4.39%	799	3.11E-03	18	8.18%	1489	5.79E-03
3	0.41%	75	2.90E-04	11	4.66%	848	3.30E-03	19	5.70%	1037	4.04E-03
4	0.26%	47	1.84E-04	12	5.89%	1072	4.17E-03	20	4.27%	777	3.02E-03
5	0.50%	91	3.54E-04	13	6.15%	1119	4.35E-03	21	3.26%	593	2.31E-03
6	0.90%	164	6.37E-04	14	6.04%	1099	4.28E-03	22	3.30%	601	2.34E-03
7	3.79%	690	2.68E-03	15	7.01%	1276	4.96E-03	23	2.46%	448	1.74E-03
8	7.76%	1412	5.50E-03	16	7.14%	1299	5.06E-03	24	1.87%	340	1.32E-03
								Total		18,202	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	209	8.17E-04	9	7.11%	1294	5.05E-03	17	7.39%	1345	5.25E-03
2	0.42%	76	2.98E-04	10	4.39%	799	3.12E-03	18	8.18%	1489	5.81E-03
3	0.41%	75	2.91E-04	11	4.66%	848	3.31E-03	19	5.70%	1037	4.05E-03
4	0.26%	47	1.85E-04	12	5.89%	1072	4.19E-03	20	4.27%	777	3.03E-03
5	0.50%	91	3.55E-04	13	6.15%	1119	4.37E-03	21	3.26%	593	2.32E-03
6	0.90%	164	6.40E-04	14	6.04%	1099	4.29E-03	22	3.30%	601	2.35E-03
7	3.79%	690	2.69E-03	15	7.01%	1276	4.98E-03	23	2.46%	448	1.75E-03
8	7.76%	1412	5.52E-03	16	7.14%	1299	5.07E-03	24	1.87%	340	1.33E-03
								Total		18,202	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area					
											Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEVAP_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,200	14,941	160,825	2.535E-07	1.869E-07	2.6	1.21
TEVAP_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,200	14,995	161,410	2.535E-07	1.869E-07	2.6	1.21
									Total	36,400						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1
Travel Speed (mph)	40
Emissions per Vehicle per Hour (g/hour)	1.31461
Emissions per Vehicle per Mile (g/VMT)	0.03287

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	209	1.05E-03	9	7.11%	1294	6.46E-03	17	7.39%	1345	6.72E-03
2	0.42%	76	3.82E-04	10	4.39%	799	3.99E-03	18	8.18%	1489	7.43E-03
3	0.41%	75	3.73E-04	11	4.66%	848	4.24E-03	19	5.70%	1037	5.18E-03
4	0.26%	47	2.36E-04	12	5.89%	1072	5.35E-03	20	4.27%	777	3.88E-03
5	0.50%	91	4.54E-04	13	6.15%	1119	5.59E-03	21	3.26%	593	2.96E-03
6	0.90%	164	8.18E-04	14	6.04%	1099	5.49E-03	22	3.30%	601	3.00E-03
7	3.79%	690	3.44E-03	15	7.01%	1276	6.37E-03	23	2.46%	448	2.24E-03
8	7.76%	1412	7.05E-03	16	7.14%	1299	6.49E-03	24	1.87%	340	1.70E-03
								Total		18,202	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	209	1.05E-03	9	7.11%	1294	6.49E-03	17	7.39%	1345	6.74E-03
2	0.42%	76	3.83E-04	10	4.39%	799	4.00E-03	18	8.18%	1489	7.46E-03
3	0.41%	75	3.74E-04	11	4.66%	848	4.25E-03	19	5.70%	1037	5.20E-03
4	0.26%	47	2.37E-04	12	5.89%	1072	5.37E-03	20	4.27%	777	3.89E-03
5	0.50%	91	4.56E-04	13	6.15%	1119	5.61E-03	21	3.26%	593	2.97E-03
6	0.90%	164	8.21E-04	14	6.04%	1099	5.51E-03	22	3.30%	601	3.01E-03
7	3.79%	690	3.46E-03	15	7.01%	1276	6.39E-03	23	2.46%	448	2.24E-03
8	7.76%	1412	7.08E-03	16	7.14%	1299	6.51E-03	24	1.87%	340	1.71E-03
								Total		18,202	

Cambrian Park Plaza, San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Camden Avenue
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_CM1	Camden Avenue Westbound	WB	3	880.3	0.55	17.0	56	1.3	40	18,200	14,941	160,825	2.803E-07	2.067E-07	2.6	1.21
FUG_CM2	Camden Avenue Eastbound	EB	3	883.5	0.55	17.0	56	1.3	40	18,200	14,995	161,410	2.803E-07	2.067E-07	2.6	1.21
									Total	36,400						

Emission Factors - Fugitive PM2.5

Speed Category	1
Travel Speed (mph)	40
Tire Wear - Emissions per Vehicle (g/VMT)	0.00219
Brake Wear - Emissions per Vehicle (g/VMT)	0.01734
Road Dust - Emissions per Vehicle (g/VMT)	0.01681
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03634

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_CM1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	209	1.16E-03	9	7.11%	1294	7.15E-03	17	7.39%	1345	7.43E-03
2	0.42%	76	4.22E-04	10	4.39%	799	4.41E-03	18	8.18%	1489	8.22E-03
3	0.41%	75	4.12E-04	11	4.66%	848	4.68E-03	19	5.70%	1037	5.73E-03
4	0.26%	47	2.61E-04	12	5.89%	1072	5.92E-03	20	4.27%	777	4.29E-03
5	0.50%	91	5.03E-04	13	6.15%	1119	6.18E-03	21	3.26%	593	3.28E-03
6	0.90%	164	9.05E-04	14	6.04%	1099	6.07E-03	22	3.30%	601	3.32E-03
7	3.79%	690	3.81E-03	15	7.01%	1276	7.05E-03	23	2.46%	448	2.47E-03
8	7.76%	1412	7.80E-03	16	7.14%	1299	7.18E-03	24	1.87%	340	1.88E-03
								Total		18,202	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_CM2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	209	1.16E-03	9	7.11%	1294	7.17E-03	17	7.39%	1345	7.45E-03
2	0.42%	76	4.24E-04	10	4.39%	799	4.43E-03	18	8.18%	1489	8.25E-03
3	0.41%	75	4.14E-04	11	4.66%	848	4.70E-03	19	5.70%	1037	5.75E-03
4	0.26%	47	2.62E-04	12	5.89%	1072	5.94E-03	20	4.27%	777	4.31E-03
5	0.50%	91	5.04E-04	13	6.15%	1119	6.20E-03	21	3.26%	593	3.29E-03
6	0.90%	164	9.08E-04	14	6.04%	1099	6.09E-03	22	3.30%	601	3.33E-03
7	3.79%	690	3.82E-03	15	7.01%	1276	7.07E-03	23	2.46%	448	2.48E-03
8	7.76%	1412	7.83E-03	16	7.14%	1299	7.20E-03	24	1.87%	340	1.89E-03
								Total		18,202	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue Alternative 2
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
DPM_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	43.7	3.4	35	10,095	12,784	137,605	3.081E-09	2.271E-09	6.8	3.16
DPM_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	43.7	3.4	35	10,095	12,789	137,662	3.081E-09	2.271E-09	6.8	3.16
									Total	20,190						

Emission Factors

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle (g/VMT)	0.00057

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	394	3.69E-05	9	6.42%	648	6.07E-05	17	5.62%	567	5.31E-05
2	2.58%	260	2.44E-05	10	7.34%	741	6.94E-05	18	3.27%	330	3.09E-05
3	2.87%	290	2.71E-05	11	6.42%	648	6.07E-05	19	2.35%	237	2.22E-05
4	3.32%	335	3.14E-05	12	6.88%	695	6.50E-05	20	0.86%	87	8.13E-06
5	2.18%	220	2.06E-05	13	6.25%	631	5.91E-05	21	3.09%	312	2.92E-05
6	3.38%	341	3.19E-05	14	6.19%	625	5.85E-05	22	4.13%	417	3.90E-05
7	6.02%	608	5.69E-05	15	5.10%	515	4.82E-05	23	2.52%	254	2.38E-05
8	4.64%	468	4.39E-05	16	3.78%	382	3.57E-05	24	0.92%	93	8.70E-06
								Total		10,098	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	394	3.69E-05	9	6.42%	648	6.07E-05	17	5.62%	567	5.31E-05
2	2.58%	260	2.44E-05	10	7.34%	741	6.94E-05	18	3.27%	330	3.09E-05
3	2.87%	290	2.71E-05	11	6.42%	648	6.07E-05	19	2.35%	237	2.22E-05
4	3.32%	335	3.14E-05	12	6.88%	695	6.51E-05	20	0.86%	87	8.13E-06
5	2.18%	220	2.06E-05	13	6.25%	631	5.91E-05	21	3.09%	312	2.92E-05
6	3.38%	341	3.20E-05	14	6.19%	625	5.85E-05	22	4.13%	417	3.91E-05
7	6.02%	608	5.69E-05	15	5.10%	515	4.82E-05	23	2.52%	254	2.38E-05
8	4.64%	468	4.39E-05	16	3.78%	382	3.57E-05	24	0.92%	93	8.70E-06
								Total		10,098	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue Alternative 2
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Vertical Dimension (m)
PM25_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	10,095	12,784	137,605	8.173E-09	6.026E-09	2.6	1.21
PM25_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	10,095	12,789	137,662	8.173E-09	6.026E-09	2.6	1.21
									Total	20,190						

Emission Factors - PM2.5

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle (g/VMT)	0.001499

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	116	2.88E-05	9	7.11%	718	1.78E-04	17	7.39%	746	1.85E-04
2	0.42%	42	1.05E-05	10	4.39%	443	1.10E-04	18	8.18%	826	2.05E-04
3	0.41%	41	1.03E-05	11	4.66%	470	1.17E-04	19	5.70%	575	1.43E-04
4	0.26%	26	6.52E-06	12	5.89%	595	1.48E-04	20	4.27%	431	1.07E-04
5	0.50%	50	1.25E-05	13	6.15%	621	1.54E-04	21	3.26%	329	8.18E-05
6	0.90%	91	2.26E-05	14	6.04%	610	1.51E-04	22	3.30%	333	8.28E-05
7	3.79%	383	9.50E-05	15	7.01%	708	1.76E-04	23	2.46%	248	6.17E-05
8	7.76%	783	1.95E-04	16	7.14%	721	1.79E-04	24	1.87%	189	4.69E-05
								Total		10,096	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	116	2.89E-05	9	7.11%	718	1.78E-04	17	7.39%	746	1.85E-04
2	0.42%	42	1.05E-05	10	4.39%	443	1.10E-04	18	8.18%	826	2.05E-04
3	0.41%	41	1.03E-05	11	4.66%	470	1.17E-04	19	5.70%	575	1.43E-04
4	0.26%	26	6.52E-06	12	5.89%	595	1.48E-04	20	4.27%	431	1.07E-04
5	0.50%	50	1.25E-05	13	6.15%	621	1.54E-04	21	3.26%	329	8.18E-05
6	0.90%	91	2.26E-05	14	6.04%	610	1.52E-04	22	3.30%	333	8.28E-05
7	3.79%	383	9.51E-05	15	7.01%	708	1.76E-04	23	2.46%	248	6.17E-05
8	7.76%	783	1.95E-04	16	7.14%	721	1.79E-04	24	1.87%	189	4.69E-05
								Total		10,096	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue Alternative 2
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEXH_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	10,095	12,784	137,605	1.396E-07	1.029E-07	2.6	1.21
TEXH_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	10,095	12,789	137,662	1.396E-07	1.029E-07	2.6	1.21
									Total	20,190						

Emission Factors - TOG Exhaust

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle (g/VMT)	0.02561

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	116	4.93E-04	9	7.11%	718	3.05E-03	17	7.39%	746	3.17E-03
2	0.42%	42	1.80E-04	10	4.39%	443	1.88E-03	18	8.18%	826	3.50E-03
3	0.41%	41	1.76E-04	11	4.66%	470	2.00E-03	19	5.70%	575	2.44E-03
4	0.26%	26	1.11E-04	12	5.89%	595	2.52E-03	20	4.27%	431	1.83E-03
5	0.50%	50	2.14E-04	13	6.15%	621	2.63E-03	21	3.26%	329	1.40E-03
6	0.90%	91	3.86E-04	14	6.04%	610	2.59E-03	22	3.30%	333	1.41E-03
7	3.79%	383	1.62E-03	15	7.01%	708	3.00E-03	23	2.46%	248	1.05E-03
8	7.76%	783	3.32E-03	16	7.14%	721	3.06E-03	24	1.87%	189	8.01E-04
								Total		10,096	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	116	4.93E-04	9	7.11%	718	3.05E-03	17	7.39%	746	3.17E-03
2	0.42%	42	1.80E-04	10	4.39%	443	1.88E-03	18	8.18%	826	3.51E-03
3	0.41%	41	1.76E-04	11	4.66%	470	2.00E-03	19	5.70%	575	2.44E-03
4	0.26%	26	1.11E-04	12	5.89%	595	2.52E-03	20	4.27%	431	1.83E-03
5	0.50%	50	2.14E-04	13	6.15%	621	2.64E-03	21	3.26%	329	1.40E-03
6	0.90%	91	3.86E-04	14	6.04%	610	2.59E-03	22	3.30%	333	1.41E-03
7	3.79%	383	1.62E-03	15	7.01%	708	3.00E-03	23	2.46%	248	1.05E-03
8	7.76%	783	3.33E-03	16	7.14%	721	3.06E-03	24	1.87%	189	8.01E-04
								Total		10,096	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue Alternative 2
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

											Line Area					
Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
TEV_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	10,095	12,784	137,605	########	1.510E-07	2.6	1.21
TEV_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	10,095	12,789	137,662	########	1.510E-07	2.6	1.21
									Total	20,190						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1
Travel Speed (mph)	35
Emissions per Vehicle per Hour (g/hour)	1.31461
Emissions per Vehicle per Mile (g/VMT)	0.03756

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEV_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	116	7.23E-04	9	7.11%	718	4.47E-03	17	7.39%	746	4.64E-03
2	0.42%	42	2.64E-04	10	4.39%	443	2.76E-03	18	8.18%	826	5.14E-03
3	0.41%	41	2.58E-04	11	4.66%	470	2.93E-03	19	5.70%	575	3.58E-03
4	0.26%	26	1.63E-04	12	5.89%	595	3.70E-03	20	4.27%	431	2.68E-03
5	0.50%	50	3.14E-04	13	6.15%	621	3.86E-03	21	3.26%	329	2.05E-03
6	0.90%	91	5.66E-04	14	6.04%	610	3.80E-03	22	3.30%	333	2.07E-03
7	3.79%	383	2.38E-03	15	7.01%	708	4.40E-03	23	2.46%	248	1.55E-03
8	7.76%	783	4.88E-03	16	7.14%	721	4.49E-03	24	1.87%	189	1.18E-03
								Total		10,096	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEV_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	116	7.23E-04	9	7.11%	718	4.47E-03	17	7.39%	746	4.65E-03
2	0.42%	42	2.64E-04	10	4.39%	443	2.76E-03	18	8.18%	826	5.14E-03
3	0.41%	41	2.58E-04	11	4.66%	470	2.93E-03	19	5.70%	575	3.58E-03
4	0.26%	26	1.63E-04	12	5.89%	595	3.70E-03	20	4.27%	431	2.68E-03
5	0.50%	50	3.14E-04	13	6.15%	621	3.87E-03	21	3.26%	329	2.05E-03
6	0.90%	91	5.66E-04	14	6.04%	610	3.80E-03	22	3.30%	333	2.07E-03
7	3.79%	383	2.38E-03	15	7.01%	708	4.41E-03	23	2.46%	248	1.55E-03
8	7.76%	783	4.88E-03	16	7.14%	721	4.49E-03	24	1.87%	189	1.18E-03
								Total		10,096	

Cambrian Park Plaza San Jose - Offsite Residential Roadway Modeling
Cumulative Operation - Union Avenue Alternative 2
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Vertical height (m)	(Sigma z) Vertical Dimension (m)
FUG_UN1	Union Avenue Southbound	SB	2	960.1	0.60	13.3	44	1.3	35	10,095	12,784	137,605	1.982E-07	1.461E-07	2.6	1.21
FUG_UN2	Union Avenue Northbound	NB	2	960.5	0.60	13.3	44	1.3	35	10,095	12,789	137,662	1.982E-07	1.461E-07	2.6	1.21
									Total	20,190						

Emission Factors - Fugitive PM2.5

Speed Category	1
Travel Speed (mph)	35
Tire Wear - Emissions per Vehicle (g/VMT)	0.00219
Brake Wear - Emissions per Vehicle (g/VMT)	0.01734
Road Dust - Emissions per Vehicle (g/VMT)	0.01681
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03634

Emisson Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_UN1

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	116	6.99E-04	9	7.11%	718	4.32E-03	17	7.39%	746	4.49E-03
2	0.42%	42	2.55E-04	10	4.39%	443	2.67E-03	18	8.18%	826	4.97E-03
3	0.41%	41	2.49E-04	11	4.66%	470	2.83E-03	19	5.70%	575	3.47E-03
4	0.26%	26	1.58E-04	12	5.89%	595	3.58E-03	20	4.27%	431	2.60E-03
5	0.50%	50	3.04E-04	13	6.15%	621	3.74E-03	21	3.26%	329	1.98E-03
6	0.90%	91	5.47E-04	14	6.04%	610	3.67E-03	22	3.30%	333	2.01E-03
7	3.79%	383	2.30E-03	15	7.01%	708	4.26E-03	23	2.46%	248	1.50E-03
8	7.76%	783	4.72E-03	16	7.14%	721	4.34E-03	24	1.87%	189	1.14E-03
								Total		10,096	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_UN2

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	116	6.99E-04	9	7.11%	718	4.32E-03	17	7.39%	746	4.49E-03
2	0.42%	42	2.55E-04	10	4.39%	443	2.67E-03	18	8.18%	826	4.98E-03
3	0.41%	41	2.49E-04	11	4.66%	470	2.83E-03	19	5.70%	575	3.47E-03
4	0.26%	26	1.58E-04	12	5.89%	595	3.58E-03	20	4.27%	431	2.60E-03
5	0.50%	50	3.04E-04	13	6.15%	621	3.74E-03	21	3.26%	329	1.98E-03
6	0.90%	91	5.47E-04	14	6.04%	610	3.67E-03	22	3.30%	333	2.01E-03
7	3.79%	383	2.31E-03	15	7.01%	708	4.26E-03	23	2.46%	248	1.50E-03
8	7.76%	783	4.72E-03	16	7.14%	721	4.34E-03	24	1.87%	189	1.14E-03
								Total		10,096	

Early Discoveries CDC – Cambrian Park Daycare Community Risks

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Camden Avenue (Alternative 1 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information Year	Concentration (ug/m3) DPM	Exhaust TOG	Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG	Exhaust TOG	TOTAL
1	1	0.5	2024	0.0011	0.0301	0.0644	10	0.46	0.07	0.01	0.54
2	1	0.5 - 1	2025	0.0011	0.0301	0.0644	10	0.46	0.07	0.01	0.54
3	1	1 - 2	2026	0.0011	0.0301	0.0644	3	0.06	0.01	0.00	0.07
4	1	2 - 3	2027	0.0011	0.0301	0.0644	3	0.06	0.01	0.00	0.07
5	1	3 - 4	2028	0.0011	0.0301	0.0644	3	0.06	0.01	0.00	0.07
6	1	4 - 5	2029	0.0011	0.0301	0.0644	3	0.06	0.01	0.00	0.07
7	1	5 - 6	2030	0.0011	0.0301	0.0644	3	0.06	0.01	0.00	0.07
								1.22	0.20	0.02	1.44

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0.000	**0.071**	**0.074**
0.0002	0.0712	0.0742

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Union Avenue (Alternative 1 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Year	DPM (ug/m3)	Exhaust TOG (ug/m3)	Evaporative TOG (ug/m3)	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG	Exhaust TOG	TOTAL
1	1	0.5	2024	0.0008	0.0390	0.0572	10	0.33	0.10	0.01	0.44
2	1	0.5 - 1	2025	0.0008	0.0390	0.0572	10	0.33	0.10	0.01	0.44
3	1	1 - 2	2026	0.0008	0.0390	0.0572	3	0.04	0.01	0.00	0.06
4	1	2 - 3	2027	0.0008	0.0390	0.0572	3	0.04	0.01	0.00	0.06
5	1	3 - 4	2028	0.0008	0.0390	0.0572	3	0.04	0.01	0.00	0.06
6	1	4 - 5	2029	0.0008	0.0390	0.0572	3	0.04	0.01	0.00	0.06
7	1	5 - 6	2030	0.0008	0.0390	0.0572	3	0.04	0.01	0.00	0.06
								0.89	0.26	0.02	1.16

(Infant/Child - Exposure Information; Concentration (ug/m3))

Maximum Hazard Index	Maximum Fugitive PM2.5	Maximum Total PM2.5
0.000	0.055	0.058
0.0002	0.0552	0.0575

* Daycare children assumed to be between the ages of 6 months to 6 years old

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Camden Avenue (Alternative 1 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6
Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}
Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Year	Infant/Child - Exposure Information: Concentration (ug/m3) DPM	Exhaust TOG	Evaporative TOG	Age* Sensitivity Factor	DPM Risk (per million)	Exhaust TOG	Exhaust TOG	TOTAL
1	1	0.5	2024	0.0011	0.0504	0.0647	10	0.46	0.12	0.01	0.60
2	1	0.5 - 1	2025	0.0011	0.0504	0.0647	10	0.46	0.12	0.01	0.60
3	1	1 - 2	2026	0.0011	0.0504	0.0647	3	0.06	0.02	0.00	0.08
4	1	2 - 3	2027	0.0011	0.0504	0.0647	3	0.06	0.02	0.00	0.08
5	1	3 - 4	2028	0.0011	0.0504	0.0647	3	0.06	0.02	0.00	0.08
6	1	4 - 5	2029	0.0011	0.0504	0.0647	3	0.06	0.02	0.00	0.08
7	1	5 - 6	2030	0.0011	0.0504	0.0647	3	0.06	0.02	0.00	0.08
								1.23	0.33	0.03	1.59

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum: Hazard Index	Fugitive PM2.5	Total PM2.5
0.000	**0.072**	**0.075**
0.0002	0.0716	0.0745

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Union Avenue (Alternative 1 Traffic Volumes)
Early Discoveries CDC - Cambrian Park Daycare - Infant Exposure, 3 Feet Breathing Height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/10 hrs) x (7 days/5 days) = 3.36
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values	Infant	Child	Adult
Age -->	0 - <2	2 - <16	16 - 30
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	230
A =	1	1	1
EF** =	250	250	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities
**Based on a worker schedule

Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information								
	Exposure			Concentration (ug/m3)			Age*				
Exposure	Duration				Exhaust	Evaporative	Sensitivity	DPM Risk	Exhaust TOG	Exhaust TOG	TOTAL
Year	(years)	Age	Year	DPM	TOG	TOG	Factor	(per million)			
1	1	0.5	2024	0.0008	0.0399	0.0584	10	0.34	0.10	0.01	0.45
2	1	0.5 - 1	2025	0.0008	0.0399	0.0584	10	0.34	0.10	0.01	0.45
3	1	1 - 2	2026	0.0008	0.0399	0.0584	3	0.04	0.01	0.00	0.06
4	1	2 - 3	2027	0.0008	0.0399	0.0584	3	0.04	0.01	0.00	0.06
5	1	3 - 4	2028	0.0008	0.0399	0.0584	3	0.04	0.01	0.00	0.06
6	1	4 - 5	2029	0.0008	0.0399	0.0584	3	0.04	0.01	0.00	0.06
7	1	5 - 6	2030	0.0008	0.0399	0.0584	3	0.04	0.01	0.00	0.06
								0.91	0.26	0.02	1.19

* Daycare children assumed to be between the ages of 6 months to 6 years old

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.000	**0.056**	**0.059**
0.0002	0.0564	0.0587

Project Onsite Sensitive Receptors Community Risks

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Camden Avenue (Alternative 1 Traffic Volumes)
Impacts at Onsite 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	0.85	0.85	0.72	0.73

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

Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2024	10	0.0077	0.3706	0.4756	0.089	0.024	0.0018	0.11
1	1	0 - 1	2024	10	0.0077	0.3706	0.4756	1.071	0.295	0.0223	1.39
2	1	1 - 2	2025	10	0.0077	0.3706	0.4756	1.071	0.295	0.0223	1.39
3	1	2 - 3	2026	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
4	1	3 - 4	2027	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
5	1	4 - 5	2028	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
6	1	5 - 6	2029	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
7	1	6 - 7	2030	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
8	1	7 - 8	2031	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
9	1	8 - 9	2032	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
10	1	9 - 10	2033	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
11	1	10 - 11	2034	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
12	1	11 - 12	2035	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
13	1	12 - 13	2036	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
14	1	13 - 14	2037	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
15	1	14 - 15	2038	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
16	1	15 - 16	2039	3	0.0077	0.3706	0.4756	0.143	0.039	0.0030	0.19
17	1	16-17	2040	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
18	1	17-18	2041	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
19	1	18-19	2042	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
20	1	19-20	2043	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
21	1	20-21	2044	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
22	1	21-22	2045	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
23	1	22-23	2046	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
24	1	23-24	2047	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
25	1	24-25	2048	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
26	1	25-26	2049	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
27	1	26-27	2050	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
28	1	27-28	2051	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
29	1	28-29	2052	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
30	1	29-30	2053	1	0.0077	0.3706	0.4756	0.022	0.006	0.0005	0.029
Total Increased Cancer Risk								4.54	1.252	0.095	**5.88**

* Third trimester of pregnancy

	Maximum	
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.0015	0.5259	0.5476

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Union Avenue (Alternative 1 Traffic Volumes)
Impacts at Onsite 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	0.85	0.85	0.72	0.73

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

Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
0	0.25	-0.25 - 0*	2024	10	0.0045	0.3025	0.4438	0.052	0.020	0.0017	0.07
1	1	0 - 1	2024	10	0.0045	0.3025	0.4438	0.624	0.241	0.0208	0.89
2	1	1 - 2	2025	10	0.0045	0.3025	0.4438	0.624	0.241	0.0208	0.89
3	1	2 - 3	2026	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
4	1	3 - 4	2027	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
5	1	4 - 5	2028	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
6	1	5 - 6	2029	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
7	1	6 - 7	2030	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
8	1	7 - 8	2031	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
9	1	8 - 9	2032	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
10	1	9 - 10	2033	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
11	1	10 - 11	2034	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
12	1	11 - 12	2035	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
13	1	12 - 13	2036	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
14	1	13 - 14	2037	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
15	1	14 - 15	2038	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
16	1	15 - 16	2039	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
17	1	16-17	2040	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
18	1	17-18	2041	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
19	1	18-19	2042	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
20	1	19-20	2043	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
21	1	20-21	2044	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
22	1	21-22	2045	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
23	1	22-23	2046	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
24	1	23-24	2047	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
25	1	24-25	2048	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
26	1	25-26	2049	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
27	1	26-27	2050	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
28	1	27-28	2051	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
29	1	28-29	2052	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
30	1	29-30	2053	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
Total Increased Cancer Risk								2.64	1.022	0.088	**3.75**

* Third trimester of pregnancy

	Maximum	
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.0009	0.4284	0.4461

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Camden Avenue (Alternative 2 Traffic Volumes)
Impacts at Onsite 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	0.85	0.85	0.72	0.73

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

Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)					Maximum	
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2024	10	0.0077	0.3091	0.4779	0.089	0.020	0.0019	0.11			
1	1	0 - 1	2024	10	0.0077	0.3091	0.4779	1.076	0.246	0.0224	1.35	0.0015	0.4553	0.5502
2	1	1 - 2	2025	10	0.0077	0.3091	0.4779	1.076	0.246	0.0224	1.35			
3	1	2 - 3	2026	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
4	1	3 - 4	2027	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
5	1	4 - 5	2028	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
6	1	5 - 6	2029	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
7	1	6 - 7	2030	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
8	1	7 - 8	2031	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
9	1	8 - 9	2032	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
10	1	9 - 10	2033	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
11	1	10 - 11	2034	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
12	1	11 - 12	2035	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
13	1	12 - 13	2036	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
14	1	13 - 14	2037	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
15	1	14 - 15	2038	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
16	1	15 - 16	2039	3	0.0077	0.3091	0.4779	0.144	0.033	0.0030	0.18			
17	1	16-17	2040	1	0.0077	0.3091	0.4779	0.022	0.005	0.0005	0.028			
18	1	17-18	2041	1	0.0077	0.3091	0.4779	0.022	0.005	0.0005	0.028			
19	1	18-19	2042	1	0.0077	0.3091	0.4779	0.022	0.005	0.0005	0.028			
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29	1	28-29	2052	1	0.0077	0.3091	0.4779	0.022	0.005	0.0005	0.028			
30	1	29-30	2053	1	0.0077	0.3091	0.4779	0.022	0.005	0.0005	0.028			
Total Increased Cancer Risk								4.56	1.044	0.095	**5.70**			

* Third trimester of pregnancy

Cambrian Park Plaza, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Traffic Emissions on Union Avenue (Alternative 2 Traffic Volumes)
Impacts at Onsite 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 $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
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AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
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EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

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	Infant/Child			Adult
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Parameter				
ASF =	10	10	3	1
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A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	0.85	0.85	0.72	0.73

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

Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	TOTAL
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1	1	0 - 1	2024	10	0.0045	0.3025	0.4438	0.624	0.241	0.0208	0.89
2	1	1 - 2	2025	10	0.0045	0.3025	0.4438	0.624	0.241	0.0208	0.89
3	1	2 - 3	2026	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
4	1	3 - 4	2027	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
5	1	4 - 5	2028	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
6	1	5 - 6	2029	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
7	1	6 - 7	2030	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
8	1	7 - 8	2031	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
9	1	8 - 9	2032	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
10	1	9 - 10	2033	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
11	1	10 - 11	2034	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
12	1	11 - 12	2035	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
13	1	12 - 13	2036	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
14	1	13 - 14	2037	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
15	1	14 - 15	2038	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
16	1	15 - 16	2039	3	0.0045	0.3025	0.4438	0.083	0.032	0.0028	0.12
17	1	16-17	2040	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
18	1	17-18	2041	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
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22	1	21-22	2045	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
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30	1	29-30	2053	1	0.0045	0.3025	0.4438	0.013	0.005	0.0004	0.018
Total Increased Cancer Risk								2.64	1.022	0.088	**3.75**

* Third trimester of pregnancy

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.0009	0.4284	0.4461

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

DEPARTMENT OF PLANNING, BUILDING AND CODE ENFORCEMENT

Purpose of the Compliance Checklist

In 2020, the City adopted a Greenhouse Gas Reduction Strategy (GHGRS) that outlines the actions the City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions for the interim target year 2030. The purpose of the Greenhouse Gas Reduction Strategy Compliance Checklist (Checklist) is to:

- Implement GHG reduction strategies from the 2030 GHGRS to new development projects.
- Provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

The 2030 GHGRS presents the City's comprehensive path to reduce GHG emissions to achieve the 2030 reduction target, based on SB 32, BAAQMD, and OPR. Additionally, the 2030 GHGRS leverages other important City plans and policies; including the General Plan, Climate Smart San José, and the City Municipal Code in identifying reductions strategies that achieve the City's target. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of greenhouse gases. Accordingly, the City of San José's 2030 GHGRS represents San José's qualified climate action plan in compliance with CEQA.

As described in the 2030 GHGRS, these GHG reductions will occur through a combination of City initiatives in various plans and policies and will provide reductions from both existing and new developments. This Compliance Checklist specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA. Therefore, the Checklist is a critical implementation tool in the City's overall strategy to reduce GHG emissions. Implementation of applicable reduction actions in new development projects will help the City achieve incremental reductions toward its target. Per the 2030 GHGRS, the City will monitor strategy implementation and make updates, as necessary, to maintain an appropriate trajectory to the 2030 GHG target.

Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the GHGRS.

Instructions for Compliance Checklist

Applicants shall complete the following sections to demonstrate conformance with the City of San José 2030 Greenhouse Gas Reduction Strategy for the proposed project. All projects must complete Section A. General Plan Policy Conformance and Section B. Greenhouse Gas Reduction Strategies. Projects that propose alternative GHG mitigation measures must also complete Section C. Alternative Project Measures and Additional GHG Reductions.

A. General Plan Policy Compliance

Projects need to demonstrate consistency with the Envision San José 2040 General Plan's relevant policies for Land Use & Design, Transportation, Green Building, and Water Conservation, enumerated in Table A. All applicants shall complete the following steps.

1. Complete Table A, Item #1 to demonstrate the project's consistency with the General Plan Land Use and Circulation Diagram.
2. Complete Table A, Items #2 through #4 to demonstrate the project's consistency with General Plan policies[1] related to green building; pedestrian, bicycle & transit site design; and water conservation and urban forestry, as applicable. For each policy listed, mark the relevant yes/no check boxes to indicate project consistency, and provide a qualitative description of how the policy is implemented in the proposed project or why the policy is not applicable to the proposed project. Qualitative descriptions can be included in Table A or provided as separate attachments. This explanation will provide the basis for analysis in the CEQA document.

B. Greenhouse Gas Reduction Strategies

Table B identifies the GHGRS strategies and recommended consistency options. Projects need to demonstrate consistency with the GHGRS reduction strategies listed in Table B or document why the strategies are not applicable or are infeasible. The corresponding GHGRS strategies are indicated in the table to provide additional context, with the full text of the strategies preceding Table B.

Residential projects must complete Table B, Part 1 and 2; Non-residential projects must complete Table B, Part 2 only. All applicants shall complete the following steps for Table B.

1. Review the project consistency options described in the column titled 'GHGRS Strategy and Consistency Options'.
2. Use the check boxes in the column titled "Project Conformance" to indicate if the strategy is 'Proposed', 'Not Applicable', 'Not Feasible', or if there is an 'Alternative Measure Proposed'.

[1] The lists in items # 2-4 do not represent all General Plan policies but allow projects to demonstrate consistency and achievement of policies that are related to quantified reduction estimates in the 2030 GHGRS.

3. Provide a qualitative analysis of the proposed project's compliance with the GHGRS strategies in the column titled "Description of Project Measure". This will be the basis for CEQA analysis to demonstrate compliance with the 2030 GHGRS and by extension, with SB 32. The qualitative analysis should provide:

   a. A description of which consistency options are included as part of the proposed project, or

   b. A description of why the strategy is not applicable to the proposed project, or

   c. A description of why the consistency options are infeasible. If applicants select 'Not Feasible' or 'Alternative Measure Proposed', they must complete Table C to document what alternative project measures will be implemented to achieve a similar level of greenhouse gas reduction and how those reduction estimates were calculated.

C. Alternative Project Measures and Additional GHG Reductions

Projects that propose alternative GHG mitigation measures to those identified in Table B or propose to include additional GHG mitigation measures beyond those described in Tables A and B, shall provide a summary explanation of the proposed measures and demonstrate efficiency or greenhouse gas reductions achievable though the proposed measures. Documentation for these alternative or additional project measures shall be documented in Table C. Any applicants who select 'Not Feasible' or 'Alternative Measure Proposed' in Table B must complete the following steps for Table C.

1. In the column titled "Description of Proposed Measure" provide a qualitative description of what measure will be implemented, why it is proposed, and how it will reduce GHG emissions.

2. In the column titled "Description of GHG Reduction Estimate" demonstrate how the alternative project measure would achieve the same or greater level of greenhouse gas reductions as the GHGRS strategy it replaces. Documentation or calculation files can be attached separately.

3. In the column titled "Proposed Measure Implementation" identify how the measure will be implemented: incorporated as part of the project design or as an additional measure that is not part of the project (e.g., purchase of carbon offsets).

Compliance Checklist

Evaluation of Project Conformance with the 2030 Greenhouse Gas Reduction Strategy

Table A: General Plan Consistency

Development Type: ☐ Commercial ☐ Residential ☐ Office ☒ Other: Specify

Mixed use: commercial, residential, and senior care.
For response documentation, please see the attachment.

1) Consistency with the Land Use/Transportation Diagram (Land Use and Density)	**Yes**	**No**
Is the proposed Project consistent with the Land Use/Transportation Diagram?	☒	☐
If not, and the proposed project includes a General Plan Amendment, does the proposed amendment decrease GHG emissions (in absolute terms or per capita, per employee, per service population) below the level assumed in the GHGRS based on the existing planned land use? (The project could have a higher density, mix of uses, or other features that would reduce GHG emissions compared to the planned land use).[2]	☐	☐
If not, would the proposed project and the General Plan Amendment increase GHG emissions (in absolute terms or per capita, per employee, per service population)? Project is not consistent with GHGRS and further modeling will be required to determine if additional mitigation measures are necessary.	☐	☐

Response documentation: *[Either here or as an attachment]*

[2] For example, a General Plan Amendment to change use from single-family residential to multi-family residential or a General Plan Amendment to change the use from regional-serving commercial to mixed-use urban in a transit-served area might reduce travel demand, and therefore GHG emissions from mobile sources.

2) Implementation of Green Building Measures	Yes	No
***MS-2.2**: Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-2.3**: Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-2.7**: Encourage the installation of solar panels or other clean energy power generation sources over parking areas.*	☐	☐
Not applicable	☐	☒
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-2.11**: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-16.2**: Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.*	☐	☐
Not applicable	☐	☒
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

3) Pedestrian, Bicycle & Transit Site Design Measures	**Yes**	**No**
***CD-2.1**: Promote the Circulation Goals and Policies in the Envision San José 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of the Envision San José 2040 General Plan.*		
a) Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.	☒	☐
b) Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.	☒	☐
c) Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

***CD-2.5**: Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

	Yes	No
***CD-2.11**: Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***CD-3.2**: Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***CD-3.4**: Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***LU-3.5**: Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

	Yes	No
TR-2.8: *Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
TR-7.1: *Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies, transit incentives and other measures.*	☐	☐
Not applicable	☒	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
TR-8.5: *Promote participation in car share programs to minimize the need for parking spaces in new and existing development.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

4) Water Conservation and Urban Forestry Measures	Yes	No
MS-3.1*: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial and developer-installed residential development unless for recreation needs or other area functions.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

	Yes	No
***MS-3.2**: Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-19.4**: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.*	☐	☐
Not applicable	☐	☒
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-21.3**: Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		
***MS-26.1**: As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.*	☒	☐
Not applicable	☐	☐
Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]		

	Yes	No
***ER-8.7**: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.*	☐	☐
Not applicable	☐	☒

Describe how the project is consistent or why the measure is not applicable. [Either here or as an attachment]

GHGRS Strategies

GHGRS #1: The City will implement the San José Clean Energy program to provide residents and businesses access to cleaner energy at competitive rates.

GHGRS #2: The City will implement its building reach code ordinance (adopted September 2019) and its prohibition of natural gas infrastructure ordinance (adopted October 2019) to guide the city's new construction toward zero net carbon (ZNC) buildings.

GHGRS #3: The City will expand development of rooftop solar energy through the provision of technical assistance and supportive financial incentives to make progress toward the Climate Smart San José goal of becoming a one-gigawatt solar city.

GHGRS #4: The City will support a transition to building decarbonization through increased efficiency improvements in the existing building stock and reduced use of natural gas appliances and equipment.

GHGRS #5: As an expansion to Climate Smart San José, the City will update its Zero Waste Strategic Plan and reassess zero waste strategies. Throughout the development of the update, the City will continue to divert 90 percent of waste away from landfills through source reduction, recycling, food recovery and composting, and other strategies.

GHGRS #6: The City will continue to be a partner in the Caltrain Modernization Project to enhance local transit opportunities while simultaneously improving the city's air quality.

GHGRS #7: The City will expand its water conservation efforts to achieve and sustain long-term per capita reductions that ensure a reliable water supply with a changing climate, through regional partnerships, sustainable landscape designs, green infrastructure, and water-efficient technology and systems.

Table B: 2030 Greenhouse Gas Reduction Strategy Compliance

GHGRS Strategy and Consistency Options	Description of Project Measure	Project Conformance
PART 1: RESIDENTIAL PROJECTS ONLY		
Zero Net Carbon Residential Construction 1. Achieve/exceed the City's Reach Code, and 2. Exclude natural gas infrastructure in new construction, or 3. Install on-site renewable energy systems or participate in a community solar program to offset 100% of the project's estimated energy demand, or 4. Participate in San José Clean Energy at the Total Green level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project until which time SJCE achieves 100% carbon-free electricity for all accounts. **Supports Strategies**: GHGRS #1, GHGRS #2, GHGRS #3	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this strategy is not applicable to your project.* *OR,* *Describe why such measures are infeasible.*	☒ Proposed ☐ Not Applicable ☐ Not Feasible* ☐ Alternative Measure Proposed ** The 2030 GHGRS assumed this strategy would be feasible for 50% of residential units constructed between 2020 and 2030.*
PART 2: RESIDENTIAL AND NON-RESIDENTIAL PROJECTS		
Renewable Energy Development 1. Install solar panels, solar hot water, or other clean energy power generation sources on development sites, or 2. Participate in community solar programs to support development of renewable energy in the community, or 3. Participate in San José Clean Energy at the Total Green level (i.e., 100% carbon-free electricity) for electricity accounts associated with the project. **Supports Strategies**: GHGRS #1, GHGRS #3	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this strategy is not applicable to your project.* *OR,* *Describe why such measures are infeasible.*	☐ See Part 1 (Residential projects only) ☒ Proposed ☐ Not Applicable ☐ Not Feasible ☐ Alternative Measure Proposed

GHGRS Strategy and Consistency Options	Description of Project Measure	Project Conformance
Building Retrofits – Natural Gas[3] This strategy only applies to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the Project Conformance column. 1. Replace an existing natural gas appliance with an electric alternative (e.g., space heater, water heater, clothes dryer), or 2. Replace an existing natural gas appliance with a high-efficiency model **Supports Strategies:** GHGRS #4	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this strategy is not applicable to your project.* *OR,* *Describe why such measures are infeasible.*	☐ Proposed ☒ Not Applicable ☐ Not Feasible ☐ Alternative Measure Proposed
Zero Waste Goal 1. Provide space for organic waste (e.g., food scraps, yard waste) collection containers, and/or 2. Exceed the City's construction & demolition waste diversion requirement. **Supports Strategies:** GHGRS #5	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this strategy is not applicable to your project.* *OR,* *Describe why such measures are infeasible.*	☒ Proposed ☐ Not Applicable ☐ Not Feasible ☐ Alternative Measure Proposed

[3] GHGRS Strategy #4 applies to existing building retrofits and not to new construction; Strategy #2 applies to new construction to reduce natural gas related GHG emissions

GHGRS Strategy and Consistency Options	Description of Project Measure	Project Conformance
Caltrain Modernization 1. For projects located within ½ mile of a Caltrain station, establish a program through which to provide project tenants and/or residents with free or reduced Caltrain passes or 2. Develop a program that provides project tenants and/or residents with options to reduce their vehicle miles traveled (e.g., a TDM program), which could include transit passes, bike lockers and showers, or other strategies to reduce project related VMT. **Supports Strategies:** GHGRS #6	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this strategy is not applicable to your project.* *OR,* *Describe why such measures are infeasible.*	☒ Proposed ☐ Not Applicable ☐ Not Feasible ☐ Alternative Measure Proposed
Water Conservation 1. Install high-efficiency appliances/fixtures to reduce water use, and/or include water-sensitive landscape design, and/or 2. Provide access to reclaimed water for outdoor water use on the project site. **Supports Strategies:** GHGRS #7	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this strategy is not applicable to your project.* *OR,* *Describe why such measures are infeasible.*	☒ Proposed ☐ Not Applicable ☐ Not Feasible ☐ Alternative Measure Proposed

Table C: Applicant Proposed Greenhouse Gas Reduction Measures

Description of Proposed Measure	Description of GHG Reduction Estimate	Proposed Measure Implementation
[Describe the proposed project measure and why it is proposed] **Supports Strategies/Sectors:** GHGRS # 6	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation/assumptions.]*	☒ Part of Design ☐ Additional Measure
[Describe the proposed project measure and why it is proposed] **Supports Strategies/Sectors:** GHGRS #	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation/assumptions.]*	☐ Part of Design ☐ Additional Measure
[Describe the proposed project measure and why it is proposed] **Supports Strategies/Sectors:** GHGRS #	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation/assumptions.]*	☐ Part of Design ☐ Additional Measure
[Describe the proposed project measure and why it is proposed] **Supports Strategies/Sectors:** GHGRS #	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation/assumptions.]*	☐ Part of Design ☐ Additional Measure

Table A: General Plan Consistency

1) Consistency with the Land Use/Transportation Diagram (Land Use and Density)

Is the proposed Project consistent with the Land Use/Transportation Diagram?

The Project is a Signature Project in an Urban Village area on a property with an Urban Village land use designation. Consistent with General Plan policy IP-5.10, the Project can proceed in advance of the Urban Village Plan because it has features that will cause it to act as a catalyst for the full implementation of the Envision General Plan Urban Village strategy. For example, the Project incorporates housing density at or above the average density of the dwelling units per acre planned for the entire Village Planning area and is located at a visible, prominent location within the planned Urban Village. Therefore, the Project will further the Envision San Jose 2040 General Plan Strategy #5 and policy IP-5.10 by providing an active, walkable, bicycle-friendly, mixed-use setting for new housing and job growth attractive to an innovative workforce and consistent with the Plan's environmental goals.

2) Implementation of Green Building Measures

MS-2.2: Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.

The low-rise residential units will include rooftop solar. The apartment, hotel, and assisted living will be solar ready and will include rooftop solar to the extent feasible after accounting for HVAC and other rooftop mechanical needs. The Project also will meet the City's goal of a LEED silver rating and will implement the City's adopted Green Building requirements.

MS-2.3: Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.

Solar orientation has been used to site the proposed buildings to the extent feasible and solar awareness has informed building and landscape decisions. Numerous new trees will be planted at the site to shade south and southwest exposures. In addition, many south and southwest facing windows will have trellises and canopies. Additionally, the proposed project would include insulation and design provisions to minimize wasteful energy consumption, per the State's CALGreen code and would be constructed using green building practices, LEED and Green Point, consistent with San Jose's Council Policy 6-32. Finally, the proposed project would implement numerous green building measures and design features, consistent with the San Jose 2030 Greenhous Gas Reduction Strategy.

MS-2.7: Encourage the installation of solar panels or other clean energy power generation sources over parking areas.

There is no significant surface parking on the Project site. The majority of parking for the project will be located in underground garages, with no aggregated surface lots for the proposed hotel, commercial/apartment, or assisted living/office buildings proposed. The Project's limited surface parking is mainly along streets or private drives rather than in parking lots.

MS-2.11: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically, target reduced energy use through construction techniques *(e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).*

The Project would meet the standards of the City's Private Sector Green Building Policy (6-32) and Green Building Ordinance (Chapter 17.84) and is designed to achieve a LEED rating of silver. The Project would reduce energy use through use of energy-efficient building shells, designs that incorporate natural daylighting and window shading, and efficient mechanical systems and plumbing fixtures.

MS-16.2: Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.

The Project is not located in an area where community solar shares are available and is not a renewable energy project. As stated above, however, the Project would include solar panels on buildings throughout the site, and will be plumbed for future solar capability. Utilities that will serve future solar panels will be brought to the property. The Project's use of on-site solar will decrease the need to pull energy from the grid. Even so, electricity for the Project would be provided by SJCE, which provides 80 percent GHG emission-free electricity automatically, with the option to receive 100 percent GHG emission-free electricity from entirely renewable sources. SJCE's mix will become cleaner as required to meet SB 100.

3) Pedestrian, Bicycle & Transit Site Design Measures

CD-2.1: Promote the Circulation Goals and Policies in the Envision San José 2040 General Plan. Create streets that promote pedestrian and bicycle transportation by following applicable goals and policies in the Circulation section of the Envision San José 2040 General Plan.

a) Design the street network for its safe shared use by pedestrians, bicyclists, and vehicles. Include elements that increase driver awareness.

The Project's street network would be designed to be safe for shared use. Vehicular circulation is largely separated from pedestrian circulation. A large majority of the Project's parking would be underground, allowing the mixed-use village to feature pedestrian and bike connectivity. The Project would include pedestrian pathways throughout the entirety of the site. In addition, the Project would make improvements to the surrounding roadway network to facilitate increased pedestrian use and create connections to existing facilities and attractions, and to transit stops. The Project also would construct new sidewalks along Project frontages and signalize two intersections, including pedestrian signal heads to increase pedestrian safety. For cyclists, the Project would not remove or obstruct any bicycle facilities in the area and would provide on-site bicycle parking and storage facilities.

b) Create a comfortable and safe pedestrian environment by implementing wider sidewalks, shade structures, attractive street furniture, street trees, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, pedestrian-activated crossing lights, bulb-outs and curb extensions at intersections, and on-street parking that buffers pedestrians from vehicles.

The Project would create a comfortable and safe pedestrian environment by separating the pedestrian circulation from vehicular circulation, including numerous shade trees along pedestrian paths, and including path lighting. In addition, the Project would add a park with paths and street furniture. The Project also would make roadway improvements, including providing signals and pedestrian signal heads to allow safe pedestrian passage across streets. The Project also incorporates on-street parking to buffer pedestrians from vehicles.

c) Consider support for reduced parking requirements, alternative parking arrangements, and Transportation Demand Management strategies to reduce area dedicated to parking and increase area dedicated to employment, housing, parks, public art, or other amenities. Encourage de-coupled parking to ensure that the value and cost of parking are considered in real estate and business transactions.

The Project would provide the minimum parking required for the Project and includes shared parking arrangement between its various uses. Specifically, the retail and hotel uses would share parking and will be parked at minimum code requirements. Do to different peak use times, the restaurant uses can share parking with retail uses. For the assisted living, the parking is provided at the minimum allowed. In addition, the commercial portion of the Project includes a Transportation Demand Management (TDM) Plan to reduce single-occupancy vehicle trips.

CD-2.5: Integrate Green Building Goals and Policies of the Envision San José 2040 General Plan into site design to create healthful environments. Consider factors such as shaded parking areas, pedestrian connections, minimization of impervious surfaces, incorporation of stormwater treatment measures, appropriate building orientations, etc.

Very little paving will occur on site and many additional trees have been added to the site to shade elevations, paths, and circulation elements. Solar orientation has been considered in the siting of the proposed buildings. As discussed above, the Project would improve and add pedestrian conncections. The proposed new project will also be approximately 80 percent impervious and 20 percent pervious, representing a reduction in imperviousness of approximately 18 percent compared to the existing site condition. This decrease in impervious surface area will result in a net reduction of post-construction stormwater runoff. Additionally, in conformance with the NPDES Construction General Permit, the Project would develop a SWPPP and install construction BMPs to reduce pollutant loads in stormwater runoff during construction. The Municipal Regional Stormwater Permit requires regulated projects, like the proposed project, to incorporate Low Impact Development practices to reduce runoff and to mimic a site's predevelopment hydrology. The Project is designed to meet LEED Silver requirements and comply with the City's Green Building ordinance. In addition, the Project will comply with the Building Code in effect when it is constructed, including the City's Reach Code.

CD-2.11: Within the Downtown and Urban Village Overlay areas, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.

As discussed above, the Project does not include any substantial surface parking lots. Instead, the majority of parking would be in underground garages.

CD-3.2: Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.

The Project prioritizes pedestrians and bicycles, including their connections to bus stops along Union and Camden Avenue by providing new paths and making frontage improvements. The Project also provides a new community facility (a park) that has good pedestrian connections to the existing residential neighborhood and to other paths through the Project site. The Project as designed accommodates the Project's planned pedestrian activity and is generous enough to accommodate future planned growth in pedestrian activity from the surrounding areas.

CD-3.4: Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access to transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.

As noted above, the Project would be pedestrian-oriented with numerous pathways throughout the site and to the street, including to the bus stops along Camden and Union Avenue. The Project also would provide a direct pedestrian/bicycle path connection to and public park interface with the existing residential neighborhood to the east of the site.

LU-3.5: Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.

The Project is not downtown. Nonetheless, the Project minimizes the impacts of parking by placing the majority of the Projects parking in underground garages. As discussed above, the Project is pedestrian oriented, with many shaded paths. The Project also provides for the needs of cyclists by providing 178 bicycle parking spaces on-site, which would exceed the City's minimum bicycle parking requirements.

TR-2.8: Require new development to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

Indoor bicycle storage and site (exterior) bike parking is located in and around each proposed use NS would exceed the City's minimum bicycle parking requirements. (See the landscape plan submitted with the Project application for locations.) The Project also will construct a dedicated bicycle lane along Union Avenue and make sidewalk improvements along the Project frontage.

TR-7.1: Require large employers to develop TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies, transit incentives and other measures.

The project does not propose the type of uses that constitute "large employers." Nevertheless, the proposed project will incorporate TDM measures for all proposed commercial uses on the site, reducing vehicle trips and encouraging the use of bicycles and transit.

TR-8.5: Promote participation in car share programs to minimize the need for parking spaces in new and existing development.

See response above in connection with TR-7.1. In addition, the Project would seek a car-share partner, and if one is interested, provide a car share spot. The Project also would implement green building measures consistent with the San Jose 2030 Greenhouse Gas Reduction Strategy, which includes promoting participation in car-share programs through its TDM Plan.

4) Water Conservation and Urban Forestry Measures

MS-3.1: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial and developer-installed residential development unless for recreation needs or other area functions.

The Project's irrigation system is designed to be water-efficient. (See the landscape plan for specific details.) The Project design includes the use of low-water requiring and climate-appropriate landscaping materials, and water efficient irrigation systems that conform to the State's Model Water Efficient Landscape Ordinance.

MS-3.2: Promote the use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.

The Project would include water-efficient fixtures and would have water-efficient landscaping. But there is no feasible access to recycled water. Rainwater will not be recycled on site because it is not feasible to store and treat it onsite in a safe manner. Instead, rainwater will be treated using C.3 standards before it is released to the stormwater system.

MS-19.4: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.

Recycled water is not proposed for the project because it is not feasible or cost effective at this time for the Project site. See the response above.

MS-21.3: Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.

All proposed plant materials are consistent with the City of San Jose Community Forest Guidelines, including proposed tree species. These species are well adapted to San Jose's climate. The Project would include a diversity of species and would place trees in locations that will accommodate their full growth.

MS-26.1: As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.

The Project would include the planting and maintenance of both street trees and trees on private property, which will achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines, consistent with this measure. In addition, an association of users within the Project will maintain the landscape so that it thrives.

ER-8.7: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.

Stormwater would be captured and treated through LID features before it is released into City storm drainage system. The LID features encourage some percolation and help maintain clean water. Stormwater will not be reused onsite as explained in the response to Policy MS 3-2.

Table B: 2030 Greenhouse Gas Reduction Strategy Compliance

Part 1: Residential Projects Only

The Project would comply with the City's Reach Code, which requires that new residential construction have no natural gas service.

Part 2: Residential and Non-Residential Projects

The Project would include rooftop solar to the extent feasible on non-residential rooftops and would comply with the City's Reach Code.

Zero Waste Goal

The Project would incorporate readily accessible areas for recycling and compost containers that serve all of the buildings on-site. Additionally, the Project would support the goals of the Zero Waste Strategic Plan by complying with the City's Construction and Demolition Diversion Program (which ensures that at least 75 percent of this construction waste is recovered and diverted from landfills).

Caltrain Modernization

Caltrain is not located in the Project area. The Project would include a TDM Plan that would reduce trips through measures including providing bike lockers and/or racks near entrances to buildings and providing transit information to employees.

Water Conservation

The Project would include the installation of high-efficiency appliances and fixtures to reduce water use, and low-water, climate-appropriate landscaping that meets the State's Model Water Efficient Landscape Ordinance requirements.

Table C: Applicant Proposed Greenhouse Gas Reduction Measures

In support of GHGRS #6 and its goal to improve air quality, the Project would install numerous charging stations in the parking garages to encourage electric vehicle use. In addition, the single-family and townhome garages will meet Building Code requirements for EV chargers, which encourages residents to purchase electric vehicles.