Appendix B

Air Quality Assessment

MARKET PARK SOUTH VILLAGE DEVELOPMENT AIR QUALITY, COMMUNITY RISK & GREENHOUSE GAS ASSESSMENT

San José, California

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INTRODUCTION

The purpose of this report is to address air quality impacts, to evaluate community risk from toxic air contaminant (TAC) sources, and compute greenhouse gas emissions (GHG) associated with the Market Park South Village Development located on the current San José Flea Market property, south of Berryessa Road, east of Coyote Creek, west of the Berryessa Bay Area Rapid Transit (BART) track alignment, and north of Mabury Road in the City of San José. The air quality impacts and GHG emissions would be associated with demolition and removal of the existing uses at the site, construction of the new buildings and infrastructure, and operation of the project. Air pollutant and GHG emissions associated with construction and operation of the project were predicted using models. In addition, the potential construction and operation health risk impacts to nearby sensitive receptors and the impact of existing TAC sources affecting the proposed school were evaluated. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

PROJECT DESCRIPTION

The project site is part of the approved Flea Market Planned Development Zoning that allows a total of 2,818 dwelling units and 365,622 square feet (sf) of commercial use on the 120-acre Flea Market property (includes properties both north and south of Berryessa Road). The property north of Berryessa Road is currently under construction with 1,000 dwelling units and 118,580 sf of commercial use. The project is proposed on the remaining undeveloped portion, south of Berryessa Road, that is occupied with the Flea Market offices and vendor booths. The existing entitlement includes the remaining development capacity consisting of 1,818 residential units and 247,042 square feet of commercial uses.

The proposed project includes two development scenarios that were evaluated in this report: Option 1 is the applicant's proposed development project, and Option 2 is the City's preferred development. The proposed project (Option 1) includes up to 3,450 residential units, up to 2.2 million square feet of commercial space, and up to 7,960 parking spaces. Based on the existing entitlement, the proposed project would result in a net increase of 1,632 residential units and an increase of 1.25 million square feet in commercial space. The City's preferred development scenario includes up to 3,450 residential units and up to 3.4 million square feet of commercial space, and up to 14,250 parking spaces. This would result in a net increase of 1,632 residential units and 3.15 million square feet of commercial space. Both options would also include 26,800 sf of retail and 17 acres of public park/open space within the project site.

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

[1] Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*, May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

(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 con-struction. • 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 Flea Market 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 µg/m^3	58 µg/m^3	41 µg/m^3	70 µg/m^3	122 µg/m^3
No. days exceeded: CAAQS	50 µg/m^3	1	1	0	6	4
NAAQS	150 µg/m^3	0	0	0	0	0
Max annual concentration		19.9 µg/m^3	22.0 µg/m^3	18.5 µg/m^3	21.6 µg/m^3	23.1 µg/m^3
No. days exceeded: State	-	-	-	-	-	-
$PM_{2.5}$						
Max 24-hr concentration		60.4 µg/m^3	49.4 µg/m^3	22.6µg/m^3	49.7 g/m^3	133.9µg/m^3
No. days exceeded: NAAQS	35 µg/m^3	2	2	0	6	4
Annual Concentration			10.0 g/m^3	8.4 µg/m^3	9.5 µg/m^3	12.8µg/m^3
No. days exceeded: CAAQS	12 µg/m^3	-	-	-	-	-
NAAQS	12 µg/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

[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).

Bay Area Air Quality Management District

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

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (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.

The project site is surrounded by residences to the north and east. The developments to the north are still under construction, but it is assumed that all the residences would be constructed and occupied by the time this project is under construction. In addition, there is a temporary housing for the homeless called Bridge Housing at the intersection of Mabury Road and DOT Way west of the BART rail line. The housing would be for adults only. This project would also introduce new sensitive receptors to the area in the form of residents.

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 Exceedance 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 project assuming full build-out conditions. The project land use types and size were input to CalEEMod. The project applicant provided some information regarding the construction schedule but CalEEMod defaults for a project of this size and type were primarily used in this analysis. The CARB EMission FACtors 2017 model (EMFAC2017) model was used to predict emissions from construction truck traffic and trips.[8] The model output from CalEEMod is included in *Attachment 2* and EMFAC2017 emissions modeling outputs are included in *Attachment 3*.

CalEEMod Inputs

Land Use Inputs

As stated within the project description, this project proposes two options with Option 1 being the project applicant's proposed development and Option 2 being the City's preferred development. Table 5 lists the land uses for both options and how they were entered into CalEEMod. Some of the land use sizes and types were the same for both options. The approximate acreage of 61.5-acres was used in CalEEMod for both Options 1 and 2.

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

Table 5. Project Land Uses Entered into CalEEMod

Option	Residential	Commercial/Office	Parking	Retail	Park/Open Space
Option 1	3,450 dwelling units entered as "Apartment Mid Rise"	2,200,000 sf entered as "General Office Building"	7,960 parking spaces entered as "Enclosed Parking with Elevator"	26,800 sf entered as "Strip Mall"	17 aces entered as "City Park"
Option 2		3,400,000 sf entered as "General Office Building"	14,250 parking spaces entered as "Enclosed Parking with Elevator"		

Construction Hauling Inputs

The project applicant provided earthwork information for the demolition, site preparation, and grading/excavation phases. This hauling information was applied to both Option 1 and 2 CalEEMod models. Table 6 lists the provided hauling information.

Table 6. Construction Hauling Volumes Entered into CalEEMod

Demolition Volume	Site Preparation Volume	Grading/Excavation Volume
Demolish 200,000 sf	Import 70,000 cubic yards of soil	Import 70,000 cubic yards of soil
Haul 46,000 tons of debris	Export 0 cubic yards of soil	Export 560,000 cubic yards of soil

Construction Truck 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 were based on estimates of worker and truck traffic provided by the applicant in the construction data worksheet and by email.[9] Note that the truck information was the same for both Option 1 and 2.

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 (demolition material export). Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. Table 7 provides the traffic inputs that were combined with the EMFAC2017 emission database to compute vehicle emissions.

[9] Correspondence with Hannah Darst, David J. Powers. 19 February 2020.

Table 7. CalEEMod Computed Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Total Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	72% LDA 6% LDT1 22% LDT2	38% MHDT 62% HHDT	100% HDDT	
Trip Length (miles)	10.8 miles	7.3 miles	20.0 miles	CalEEMod default distance with 5 Minute Truck Idle Time
Demolition	2,175	-	5,458	Demolish 200,000 sf of building and haul 46,000 tons of debris
Site Preparation	299	-	8,750	Import 70,000 cy of soil
Grading	920	-	78,750	Import 70,000 cy of soil Export 560,000 cy of soil
Trenching	400	-	-	CalEEMod default
Building Construction	5,377,950	1,528,470	-	CalEEMod default
Paving	1,125	-	-	CalEEMod default
Architectural Coating	72,675	-	-	CalEEMod default

Notes:
[1] Based on 2021 EMFAC2017 fleet mix for Santa Clara County
[2] Includes demolition trips estimated by CalEEMod based on amount of material to be removed.

Summary of Computed Construction Period Emissions

Average daily emissions were computed by dividing the total construction emissions by the total number of construction days. Based on the project applicant provided start date of April 2023and the CalEEMod construction schedule defaults, construction would last approximately six years or 1,410 workdays.

Table 8 shows average daily construction emissions of ROG, NOX, PM10 exhaust, and PM2.5 exhaust during construction of the project. The predicted construction period emissions would exceed the BAAQMD significance thresholds. *Mitigation Measures AQ-1, AQ-2 and AQ-3* would reduce these impacts.

Table 8. Construction Period Emissions for Options 1 and 2

Scenario	ROG		NOx		PM_{10} Exhaust		$PM_{2.5}$ Exhaust	
	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2
Unmitigated Total Construction Emissions (tons)	42.7	48.9	56.0	56.0	5.3	5.3	4.0	4.0
Mitigated Total Construction Emissions (tons)	21.3[1]	24.7[1]	35.6[2]	35.6[2]	4.9	4.9	3.6	3.6
Unmitigated Average Daily Emissions (Pounds/Day)[3]	**60.5**	**69.4**	**79.5**	**79.5**	7.5	7.5	5.6	5.6
Mitigated Average Daily Emissions (Pounds/Day)[3]	30.1	35.0	50.4	50.4	7.0	7.0	5.1	5.1
BAAQMD Thresholds (pounds per day)	*54* lbs./day		*54* lbs./day		*82* lbs./day		*54* lbs./day	
Exceed Threshold?								
Unmitigated	**Yes**	**Yes**	**Yes**	**Yes**	No	No	No	No
Mitigated	No	No	No	No	No	No	No	No

[1]Includes low VOC coating reduction for exterior and interior paints.
[2]Includes truck hauling reduction with all trucks being 2014 or newer models.
[3]Assumes 1,410 construction workdays.

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 NOx emissions.

Exhaust Emission (NOx and PM) Control Measures:

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

    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).

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

2. Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than 2 minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.

3. All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category MHDDT or HHDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) shall be *model year 2014 or newer*.

4. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.

Mitigation Measure AQ-3: Include low VOC coatings to reduce ROG emissions.

At least 50 percent of the project buildings constructed shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings) as follows:

> *At least 50 percent of coatings applied must meet a "super-compliant"" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used.*

Effectiveness of Mitigation AQ-2 and AQ-3

The effectiveness of MM AQ-2 and AQ-3 were based on additional modeling. The CalEEMod model was used to estimate the effectiveness of this mitigation measure using Tier 4 final[10] construction equipment. This was found to reduce on-site construction NO_x emissions by 80-percent ROG emissions by 55 percent. The EMFAC2017 model was used by distributing the fleet for 2014 or newer model trucks. Use of a newer model year trucks for material/soil hauling and vendor hauling would reduce traffic-related NO_x emissions by 26 percent and ROG emissions by 12 percent.

MM AQ-3 would reduce ROG construction emissions from architectural coatings by about 55 percent. Architectural coatings make up about 86-87 percent of the construction ROG emissions for Option 1 and 2, respectively. With implementation of MM AQ-3, the total ROG construction emissions for Option 1 and 2 would be reduced by approximately 50 percent.

[10] Tier 4 interim and Tier 4 final are EPA diesel engine standards to regulate the amount of PM and NO_x emitted from diesel powered equipment.

Operational Period Emissions

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

Operational Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. Project-specific daily trip generation rates were used in the model.[11] Trip generation estimates were provided for the multifamily housing and the general office building developments. The Saturday and Sunday trip rates were assumed to be the weekday rate adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate. For the City Park land use, it was assumed that there would be no trips because the park/open space area would be for the local area. For the retail land use, the CalEEMod default trip generation estimates were used. The default trip lengths and trip types specified by CalEEMod were used.

Note that the traffic study for this project does not report trip generation estimates based on land use. Instead the total project trips were computed using the City of San José's travel demand forecasting models. However, CalEEMod computes mobile emissions by trips per land use, so the traffic consultant provided trip generation estimates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition 2017).

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] 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 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 calculation methodologies and data are available in the EMFAC2017 Technical Support Document.[13]

[11] Hexagon Transportation Consultants, Inc. 2020. "Flea Market – Proposed Project Trip Generation Estimates" and "Flea Market – City's Development Alternative Generation Estimates", May.
[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] See CARB 2018: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

Re-Entrained Roadway Dust

PM_{10} and $PM_{2.5}$ emissions computed in CalEEMod used silt loading factors computed specifically for Santa Clara County. The model uses these factors to compute entrained roadway dust. The computed silt loading factors are based on county-side travel fractions developed by CARB for preparing county-wide (Santa Clara County) area source emissions from on-road dust. This factor takes into account the amount of travel on the different types of roadways in the county: freeways, arterials/collectors and local roadways. A PM_{10} silt loading factor of 0.0431 g per cubic meter was computed for this project.

Consumer Product Adjustment

CalEEMod computes emissions associated with consumer products[14] for all land uses, regardless of their types. ROG emissions from consumer products are forecasted to decrease, as shown in the CARB county emissions forecasts for 2010 through 2030. A factor to adjust the ROG consumer was developed based on the change in the per population ROG consumer emissions between 2008 and 2030. Essentially, the 2029 rate is anticipated to be 79 percent of the 2008 rate that CalEEMod uses.

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 José Clean Energy (SJCE) will provide 100-percent carbon-free base power by 2021.
- One gigawatt of solar power will be installed in San José 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 some 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

[14] Per the CalEEMod User's Guide: "Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products"

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 – Electricity and Natural Gas

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. Indirect emissions from electricity were computed in CalEEMod. The model has a default rate 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 CO_2 per megawatt of electricity delivered in the year 2017.[16] This CO_2 intensity factor was used in the model. It was also assumed that the project would use electricity supplied by San José Clean Energy (SJCE). Per the Climate Smart San José goals, this electricity will be 100-percent carbon free by 2021 before the project becomes operational.[17] Electricity was assumed to be 100-percent carbon free in the model.

Additionally, the City of San José passed an ordinance in October 2019 that prohibits the use of natural gas infrastructure in new residential buildings (e.g. single-family homes and multi-family buildings).[18] This ordinance applies to any new construction starting January 1, 2020. It was assumed in the model then that the multi-family residential buildings would not use any natural gas.

Project Generators

The project proposes to include several emergency diesel generators. However, the exact number and locations of said emergency generators is unknown at the time of this analysis. Therefore, it was assumed that each office building would have one emergency diesel generator rated at 1,000 kilowatts (kW) with an approximately 1,341 horsepower (HP) diesel engine. This totals to seven 1,000 kW emergency diesel generators. These generators would be tested periodically and power the buildings in the event of a power failure. For modeling purposes, it was assumed that the generators would be operated primarily for testing and maintenance purposes. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year of non-emergency operation. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. The generator emissions were modeled using CalEEMod.

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[15] City of San José Transportation and Environmental Committee, *Building Reach Code for New Construction Memorandum,* August 2019.
[16] PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf
[17] City of San José, 2019. *Building Reach Code for New Construction Memorandum*. August. Web: https://www.sanjoseca.gov/home/showdocument?id=44078
[18] City of San Jose, 2019. "Ordinance No. 30330", October. Web: https://records.sanjoseca.gov/Ordinances/ORD30330.pdf

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 percent aerobic conditions to represent wastewater treatment plant conditions.

Summary of Computed Operational Emissions

Annual emissions were calculated using CalEEMod and daily emissions were calculated assuming 365 days of operation. As shown in

Table 9, operational emissions would exceed the BAAQMD significance thresholds for ROG and NO_x for both Option 1 and 2. Option 2 would exceed the PM_{10} significance threshold. This would be a ***significant and unavoidable impact.*** *Implementation of Mitigation Measure AQ-4 and AQ-5 would reduce this impact, but not to a level of less than significant.*

Table 9. Operational Period Emissions

Scenario		ROG	NOx	PM_{10}	$PM_{2.5}$
Unmitigated 2029 Annual Option 1 Operational Emissions (*tons/year*)		35.3	**17.2**	14.2	4.4
Unmitigated 2029 Annual Option 2 Operational Emissions (*tons/year*)		42.5	**21.3**	**17.4**	5.4
Mitigated 2029 Annual Option 1 Operational Emissions (*tons/year*)		**29.9**	**>10**	<14.2	<4.4
Mitigated 2029 Annual Option 2 Operational Emissions (*tons/year*)		**41.6**	**>10**	**>15**	<5.4
BAAQMD Thresholds (tons /year)		*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	Option 1	***Yes***	***Yes***	*No*	*No*
	Option 2	***Yes***	***Yes***	***Yes***	*No*
	Mitigated Option 1	***Yes***	***Yes***	*No*	*No*
	Mitigated Option 2	***Yes***	***Yes***	***Yes***	*No*
Unmitigated 2029 Daily Operational Emissions – Option 1 (*lbs/day*)[1]		193.3	**94.5**	77.5	24.1
Unmitigated 2029 Daily Operational Emissions – Option 2 (*lbs//day*)[1]		232.7	**116.5**	**95.3**	29.5
Mitigated 2029 Daily Operational Emissions – Option 1 (*lbs/day*)[1]		**163.9**	**>54**	<77.5	<24.1
Mitigated 2029 Daily Operational Emissions – Option 2 (*lbs//day*)[1]		**228.1**	**>54**	**>82**	<29.5
BAAQMD Thresholds (pounds/day)		*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	Option 1	***Yes***	***Yes***	*No*	*No*
	Option 2	***Yes***	***Yes***	***Yes***	*No*
	Mitigated Option 1	***Yes***	***Yes***	*No*	*No*
	Mitigated Option 2	***Yes***	***Yes***	***Yes***	*No*
Notes: [1] Assumes 365-day operation.					

Mitigation Measure AQ-4: Require a Transportation Demand Management program to Reduce Operational Period Emissions

The project shall implement a Transportation Demand Management (TDM) plan, consistent with City requirements. This plan must demonstrate a maximum feasible reduction in overall reduction in traffic trips.

Effectiveness of Mitigation AQ-4

Implementation of a TDM plan would reduce project traffic; however, there is no singular reduction percentage that would reduce NO_x and PM_{10} emissions (where mobile emissions are the main contributor) to a level below the BAAQMD thresholds of 54 and 82 pounds per day, respectively. Trips would need to be reduced by at least 48 percent for Option 1, while trips would need to be reduced by at least 53 percent for Option 2 to reduce NO_x emissions. For Option 2 PM_{10} emissions, would need to be reduced by 14 percent.

Mitigation Measure AQ-5: Require use of low exterior VOC coatings for to reduce ROG emissions.

The project shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 80 percent of all residential and nonresidential exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 80 percent of coatings applied must meet a "super-compliant"″ VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used.

Effectiveness of Mitigation AQ-5

It is assumed that only exterior paint applications could be feasibly controlled through this mitigation measure since residential and office occupants would likely independently choose their own architectural coatings. During operation, the implementation of MM AQ-5 would reduce Option 1 ROG emissions by 15 percent and Option 2 ROG emissions by 2 percent. Operational ROG emissions would still exceed the BAAQMD threshold of 54 pounds per day even with this mitigation.

Significant and Unavoidable ROG, NO_x and PM_{10} Emissions during Project Operation

When evaluated using the thresholds contained in the 2017 version of the BAAQMD CEQA Air Quality Guidelines the project would have significant emissions of ozone precursor pollutants, ROG and NOx, during construction and operation. Significant emissions of these pollutants result in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable ambient air quality standard. Because the project would have emissions of ROG and NOx that would exceed emission-based significance thresholds, the project would result in a cumulatively considerable net increase in pollutant emissions that contribute to elevated ozone concentrations that exceed ambient air quality standards. The project would also result in a cumulatively considerable net increase in PM_{10} emissions that exceed ambient air quality standards.

Ozone is a powerful oxidant that is harmful to public health at high concentrations. Ozone, at high levels, can damage the tissues of the lungs and respiratory tract. High concentrations of ozone irritate the nose, throat, and respiratory system and constrict the airways.[19] Ozone also can aggravate other respiratory conditions such as asthma, bronchitis, and emphysema, causing increased hospital admissions. Repeated exposure to high ozone levels can make people more susceptible to respiratory infection and lung inflammation and permanently damage lung tissue. Ozone can also have negative cardiovascular impacts, including chronic hardening of the arteries and acute triggering of heart attacks. Children are most at risk, as they tend to be active and outdoors in the summer, when ozone levels are highest. Seniors and people with respiratory illnesses are also especially sensitive to ozone's effects. Even healthy adults, working or exercising outdoors during high ozone levels, can be affected. Ozone is not emitted directly from pollution sources. Instead, ozone is formed in the atmosphere through complex chemical reactions in the presence of sunlight between two types of precursor chemicals: hydrocarbons, often referred to as ROG and NOx. As air temperatures rise, the formation of ground-level ozone increases at an accelerated pace. Ozone levels are usually highest on clear, hot, windless summer afternoons, especially in inland valleys that are downwind of pollution sources.

Ozone is a regional pollutant. Emissions of ROG and NOx throughout the Bay Area contribute to ozone formation. Because emissions in one part of the region can impact air quality miles downwind, efforts to reduce ozone levels focus on reducing emissions of ROG and NOx throughout the region. The relationship between ROG and NOx in ozone formation is complex; the ratio between the precursor pollutants influences how ozone forms. BAAQMD's ozone modeling indicates that the Bay Area is "ROG-limited" for ozone formation. This means that reducing ROG emissions in the Bay Area will be more productive in reducing ozone, at least in the near term. However, modeling also suggests that large reductions in NOx emissions will be needed to achieve the ozone reductions required to attain the current health-based ozone standards. A certain amount of ozone formation occurs naturally, even in the absence of anthropogenic emissions of ROG and NOx.[20]

[19] See: California Air Resource Board, Web: https://ww2.arb.ca.gov/resources/ozone-and-health
[20] Bay Area Air Quality Management District, 2017. *Spare the Air Cool the Climate Final 2017 Clean Air Plan*. April. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en

PM_{10} are particles that make up particulate matter, which is also a regional pollutant. Sources of PM_{10} include combustion of fossil fuels, wood burning, dust from construction sites, landfills, wildfires, industrial sources, and natural sources. Short-term exposure to PM_{10} can worsen existing respiratory diseases (like asthma), while long-term exposure may be linked to respiratory mortality. However, the long-term negative health effects are not well defined.[21] The Air District has several best practice measures to reduce PM_{10} emissions from new sources including, but not limited to, construction mitigation measures to control fugitive dust and exhaust emissions, limiting idling times for vehicles especially idling diesel engines, and implementing a TDM plan.[22] For this project, the major contributor of PM_{10} emissions during operation are mobile emissions.

As stated in the BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality is considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

The project emissions from construction are compared against regional emissions that lead to elevated concentrations of ozone in Table 10. By comparing project emissions to regional emissions, one gets the sense of the magnitude of the project effects on regional air quality. Project emissions in comparison to regional emissions are such a small portion of the regional inventory (i.e., less than 0.1 percent unmitigated) that the effect of the project would not cause regional pollutant levels to measurably change. As a result, the project would not measurably increase ozone levels nor PM_{10} levels. Therefore, the health effects associated with the project ROG, NOx and PM_{10} emissions would not be measurable. However, it would increase emissions above the threshold of 54 pounds per average day, such that the emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Table 10. Comparison of Project Emissions to Air Basin Emissions

Scenario	NO_x	ROG	PM_{10}
Bay Area Air Basin in 2015[1]	298 tons/day	259 tons/day	109 tons/day
% of Basin	*0.01%*	*0.01%*	
Option 1 – Unmitigated Project Operation	0.05 tons/day	0.10 tons/day	-
% of Basin	*0.02%*	*0.04%*	
Option 2 – Unmitigated Project Operation	0.06 tons/day	0.12 tons/day	0.05 tons/day
% of Basin	*0.02%*	*0.04%*	*0.04%*

[21] See CARB Web: https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health
[22] BAAQMD, 2016. *Planning Healthy Places.* May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf?la=en

Impact AIR-2: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased community risk would occur by introducing a new sources of TAC emissions with the potential to adversely affect existing sensitive receptors in the project vicinity. This project would introduce new sources of TACs during construction (i.e. on-site construction activity and truck hauling emissions) and operation (i.e. emergency diesel generators and project traffic).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. This project operation would increase traffic in the area that would increase the air pollutant and TAC emissions in the area. In addition, the project would include the installation of emergency generators powered by diesel engines that would also have TACs and air pollutants emissions.

Project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. There are also several sources of existing TACs and localized air pollutants in the vicinity of the project. The impact of the existing sources of TAC was also assessed in terms of the cumulative risk 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 is the combination of construction and operation sources. These sources include on-site construction activity, construction truck hauling, project generators, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period was assumed with the sensitive receptors being exposed to project both construction and operation during this timeframe.

The project increased cancer risk is computed by summing the project construction and operation contribution. Unlike, the increased maximum cancer risk, the annual $PM_{2.5}$ concentration, and HI values are not additive but based on an annual maximum risk for the entirety of the project. The project 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

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 existing residences to the north and east of the project site, 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. At the Bridge Housing location, only adult receptors were assumed.

Community Risks from Project Construction – On-Site and Hauling Activity

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Construction exhaust emissions may pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. A community risk assessment of the project's construction activities, which includes on-site construction and hauling activity, was conducted. The assessment evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[23] This assessment included dispersion modeling to predict the off-site concentrations resulting from project construction, so that increased 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 construction worker, vendor, and hauling vehicles. Total emissions from all construction stages are reported in Table 8 and are on an annual basis. The annual on-road emissions that are included in Table 8 result from haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used for vehicle travel while at or near the construction site to represent localized vehicle emissions from construction. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction sites. Fugitive $PM_{2.5}$ dust emissions were computed by CalEEMod for the overall construction period and are included as part of the total $PM_{2.5}$ emissions reported in Table 11. Option 1 and 2 had the same DPM and fugitive $PM_{2.5}$ emissions.

Table 11. Unmitigated Construction Emissions of DPM and Fugitive $PM_{2.5}$ (tons)

Description	2023	2024	2025	2026	2027	2028
PM_{10} Exhaust (DPM)	0.2010	0.1777	0.1659	0.1657	0.1655	0.0920
$PM_{2.5}$ Fugitive	0.2875	0.0651	0.0649	0.0649	0.0649	0.0448

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) in the vicinity of the project construction area and construction haul routes. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[24]

Construction Sources

Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions. Combustion equipment exhaust emissions were modeled

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

as a series of point sources with a nine-foot release height (construction equipment exhaust stack height). The point sources were placed at 115-foot intervals (35 meters) throughout the construction site, which resulted in 198 individual point sources being used to represent DPM exhaust emissions. Emissions from vehicle travel on- and off-site were distributed among the point sources throughout the site. The locations of the point sources used for the modeling are identified in Figure 1. Construction fugitive $PM_{2.5}$ dust emissions were modeled as an area source encompassing the entire construction site of each development with a near ground level release height of 7 feet (2 meters). Construction emissions were modeled as occurring daily from 7:00 am to 5:00 pm for the entire construction period per the project applicant.

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. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2023-2028 period were calculated using AERMOD. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptor locations. A receptor height of 5 feet (1.5 meters) and 15 feet (4.5 meters) was used to represent the breathing heights of residents in nearby single-family homes, townhomes, and multi-story residential developments.

Predicted Construction Community Risk and Hazards

Figure 1 shows the locations where the maximum modeled DPM and $PM_{2.5}$ concentrations from construction activities occurred. The maximum increased cancer risk concentrations occurred at a townhome east of the project site, across Berryessa Station Way. The maximum annual $PM_{2.5}$ concentration was identified at the Bridge Housing location. The receptors at these location are identified as maximally exposed individuals (MEI) for construction activities.

The maximum increased cancer risk at the location of the MEI was calculated using the annual modeled DPM concentration and using BAAQMD recommended methods. The cancer risk calculations were based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs.

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 $\mu g/m^3$.

Table 12 lists the community risks from construction at the location of the offsite MEIs. Neither the unmitigated nor mitigated risk values exceed the BAAQMD single-source thresholds. However, the impact is considered potentially significant since NOx and ROG emissions would exceed the emission thresholds (see Table 8). The implementation of *Mitigation Measure AQ-1 and AQ-2* would reduce cancer risk and annual $PM_{2.5}$ impacts. Attachment *4* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Table 12. Project Construction Risk Impacts at the Offsite Residential MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction	Unmitigated	9.2 (infant)	0.13	0.01
	Mitigated	4.6 (infant)	0.09	<0.01
BAAQMD Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*
	Mitigated	*No*	*No*	*No*

Mitigation: Implement Mitigation Measures AQ-1 and AQ-2

Effectiveness of Mitigation Measures AQ-1 and AQ-2

CalEEMod was used to compute mitigated emissions assuming that all equipment met U.S. EPA Tier 4 final standards. The computed maximum increased residential cancer risk from construction would be 4.6 in one million or less, the maximum annual $PM_{2.5}$ concentration would be 0.02 $\mu g/m^3$, and the HI value would be less than 0.01. As a result, impacts caused by construction activities. would be even furthered reduced with mitigation.

Additional Construction Modeling – Learning Center and Daycare Sensitive Receptors

Additional, construction modeling and risk predictions was done for two schools – Genius Kids Berryessa and Best Brains of Berryessa. Both these facilities provide learning programs and/or daycare services. Genius Kids Berryessa is located at 1682 Berryessa Road, while Best Brains Berryessa is located at 1672 Berryessa Road. The two facilities are approximately 700 feet northeast of the project site.

Genius Kids Berryessa is a daycare and preschool facility that provides learning programs for infants/children between the ages of 2 months to 12 years old. The facility operates Monday through Friday from 8:00am to 6:30pm. They also provide camps during thanksgiving, winter, spring and summer breaks.

Best Brains Berryessa is a learning center that provides tutoring services for children between the ages of 3 to 14 years old. The facility operates Tuesday and Thursday from 4:00pm to 7:00pm and from 10:00am to 1:00pm on Saturday.

Dispersion Modeling

The same sources, meteorological data, and construction emissions were used to model the construction risk impacts at these facilities. A breathing height of three feet (one meter) was assumed for the students.

Predicted Construction Community Risk and Hazards

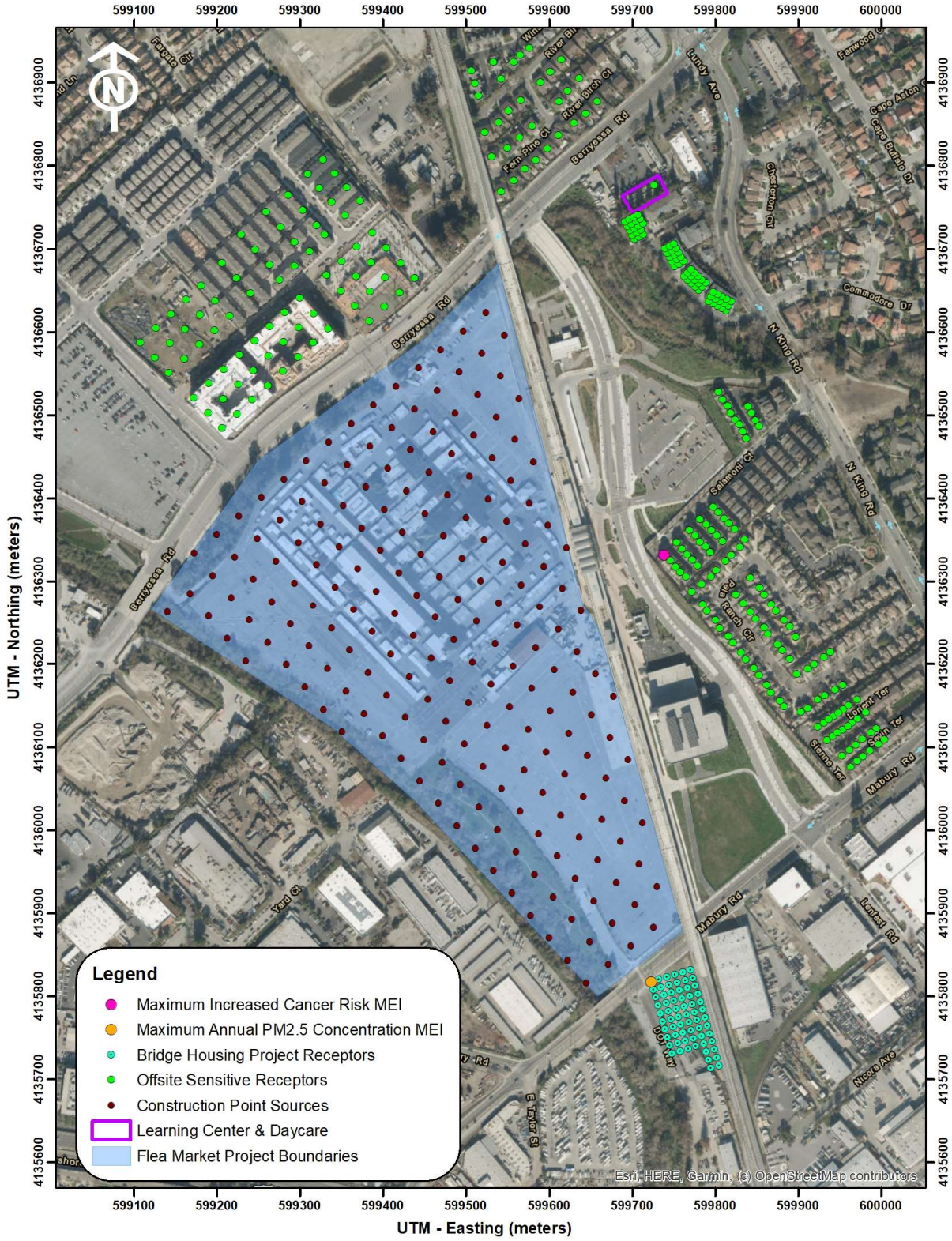
The maximum increased cancer risk at the Genius Kids Berryessa preschool was computed assuming infant exposure for 250 days per year to account for when the facility operates during breaks/holidays. The maximum increased cancer risk at the Best Brains Berryessa learning center was computed assuming child exposure for approximately 156 days per year since the facility operates three times per week. A student adjustment factor was applied since the project generators would be a non-continuous source and the students would not be present during the entire period.[25] Table 13 lists the project construction risk and hazards at both facilities. The risks do not exceed the BAAQMD single-source threshold.

Table 13. Project Construction Risk Impacts at the Learning Centers and Daycare

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction			
Genius Kids Berryessa (2 months – 12 years old)	5.1 (infant)	0.01	<0.01
Best Brains Berryessa (3 years old – 14 years old)	0.4 (child)	0.01	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Genius Kids Berryessa (2 months – 12 years old)	*No*	*No*	*No*
Best Brains Berryessa (3 years old – 14 years old)	*No*	*No*	*No*

[25] OEHHA, 2015. *Air Toxics Hot Spot Program*. February. Web: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

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



Community Risks from Project Operation – Traffic and Generators

Operation of the project would have long-term emissions from mobile sources (i.e. traffic) and stationary sources (i.e. generators). 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.

Project Daily Traffic Estimates

The project average daily traffic (ADT) volumes on Berryessa Road and Mabury Road were provided by the traffic consultant for both Options 1 and 2 in 2030.[26] Note that in the future, there are new interchange networks proposed (Mabury Interchange and Berryessa Interchange) that would change the traffic volumes on both roadways. Therefore, the traffic consultant split up the project traffic ADTs not only by option but also by interchange network. For Mabury Road, the traffic volumes based on the Mabury Interchange were used and vice-versa for Berryessa Road. Eastbound and westbound traffic were modeled for both roadways. Table 14 lists the ADTs used to model the project's traffic on Berryessa Road and Mabury Road.

Table 14. 2030 Project Traffic Volumes on Berryessa Road and Mabury Road

Scenario	Berryessa Road ADT*		Total Trips	Mabury Road ADT**		Total Trips
	Eastbound	Westbound		Eastbound	Westbound	
Option 1 (Proposed Project) *West of Sierra Road*	2,452	2,801	5,253	2,337	2,542	4,879
Option 1 (Proposed Project) *East of Sierra Road*	1,874	1,901	3,775	513	690	1,203
Option 2 (City's Project) *West of Sierra Road*	2,725	2,765	5,490	2,536	2,296	4,833
Option 2 (City's Project) *East of Sierra Road*	1,950	2,133	4,083	535	499	1,034
Note: *Berryessa ADT volumes are based on the Berryessa Interchange. **Mabury ADT volumes are based on the Mabury Interchange.						

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on Berryessa Road and Mabury Road using the Caltrans 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 $PM_{2.5}$. 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 and truck 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 2030. Year 2030 emissions were conservatively

[26] Correspondence with Robert Del Rio, Hexagon Transportation Consultants. 10 June 2020.

assumed as being representative of future conditions over the time period that cancer risks are evaluated.

The CT-EMFAC2017 model was used to develop vehicle emission factors using an estimated mix of cars and trucks. The project area roads were assumed to carry primarily cars and some trucks. A vehicle mix including 6.4 percent trucks was based on a default EMFAC2017 fleet mix truck percentages for roads in Santa Clara County.[27] Traffic volumes were assumed to increase one percent per year. Average travel speeds of 35 miles per hour (mph) were assumed for Mabury Road and an average travel speed of 40 mph was assumed for Berryessa Road based on the traffic report.

Organic TACs that are used for assessing cancer risks from vehicle emissions are those TACs that are emitted from gasoline combustion, based on emissions of TOG. The TOG emissions from gasoline-powered vehicles were computed using the EMFAC2017 model. These TOG emissions were then used in modeling the TACs associated with motor vehicle exhaust emissions and evaporative emissions. TOG emissions from exhaust and for running evaporative loses from gasoline vehicles were calculated using CT-EMFAC2017 default model values for Santa Clara County along with the traffic volumes, speeds, and vehicle mixes.

$PM_{2.5}$ emissions for vehicles traveling on project area roads were calculated using the same basic approach that was used for assessing TAC emissions. 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 and from re-entrained roadway dust were included in these emissions. The CT-EMFAC2017 model allows for the calculation of all types of $PM_{2.5}$ emissions from all vehicles and was used to calculate the $PM_{2.5}$ emissions.

Dispersion Modeling

Dispersion modeling of TAC and $PM_{2.5}$ emissions was also conducted using the U.S. EPA AERMOD dispersion model. Eastbound and westbound traffic on Berryessa Road and Mabury Road within about 1,000 feet of the project site was evaluated with the model (refer to Figure 2 for road segments modeled). Emissions from vehicle traffic were modeled in AERMOD using a series of volume sources along a line (line volume sources), with line segments used to represent eastbound and westbound travel lanes on both roadways. The modeling used a five-year data set (2013-2017) of hourly meteorological data from the San José International Airport prepared by BAAQMD. Other inputs to the model included road geometry, hourly traffic emissions and the offsite sensitive receptor locations.

Computed Risks and Hazards from Option 1 and Option 2 Project Traffic

To calculate the increased cancer risk from the project traffic, the exposure duration was adjusted for account for the MEI being exposed to construction for the first six years of the 30-year exposure

[27] Of the 6.4 percent, 2.7 percent was assumed to be light-duty/light-heavy duty vehicles and 3.7 percent was assumed to be medium-heavy/heavy-heavy duty trucks.

period. The exposure duration was adjusted for 24 years of exposure. The risks and hazards from the Option 1 and Option 2 project traffic upon the MEI Table 15.

Operational Emergency Generator Modeling

Operation of a diesel generator would be a source of TAC emissions. As stated above, the project is assumed to include seven 1,000 kW (1,341 HP) emergency diesel generators, one per office building. The generators were conservatively placed in the middle of each office structure at ground-level. Figure 2 shows the locations of the modeled generators.

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

Dispersion Modeling

To obtain an estimate of potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generators the U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at off-site sensitive receptor locations (nearby residences). The same receptors and breathing heights used in the construction dispersion modeling were used for the generator dispersion model. Additionally, the same meteorological data was used. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the generators were based on project-specific information. The stack diameter was based on BAAQMD default parameters for emergency generators.[28] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day.

Computed Risks and Hazards from Project Generators

Increased cancer risks from use of the generators were calculated using the modeled maximum annual DPM concentrations and BAAQMD recommended risk assessment methods and parameters described in *Attachment 1*. The $PM_{2.5}$ concentration and non-cancerous (i.e. Hazard Index) health risk impacts were also calculated. An exposure duration of 24 years was used to calculate the increased cancer risk from the generators. The results are also listed in Table 15. The emissions and health risk calculations for the proposed generators are included in *Attachment 4*.

[28] The San Francisco Community Risk Reduction Plan: Technical Support Document, BAAQMD, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

Additional Project Traffic Modeling – Learning Center and Daycare Sensitive Receptors

The Option 1 and Option 2 project traffic were also modeled at the Genius Kids Berryessa and Best Brains Berryessa Facility.

Dispersion Modeling

The same sources, meteorological data, and operation emissions were used to model the project traffic risk impacts at these facilities. A breathing height of three feet (one meter) was assumed for the students.

Predicted Project Traffic Community Risk and Hazards

For the students (infants and children) at both facilities, the exposure period would be 12 years. They would be exposed to the project generators during the last six years of the exposure period. The maximum increased cancer risk at the Genius Kids Berryessa preschool was computed assuming infant exposure for 250 days per year to account for when the facility operates during breaks/holidays. The maximum increased cancer risk at the Best Brains Berryessa learning center was computed assuming child exposure for approximately 156 days per year since the facility operates three times per week. Table 16 lists the Option 1 and Option 2 traffic risk and hazards at both sites.

Additional Project Generator Modeling – Learning Center and Daycare Sensitive Receptors

The risks and hazards from the generator were also predicted at Genius Kids Berryessa and Best Brains Berryessa learning centers.

Dispersion Modeling

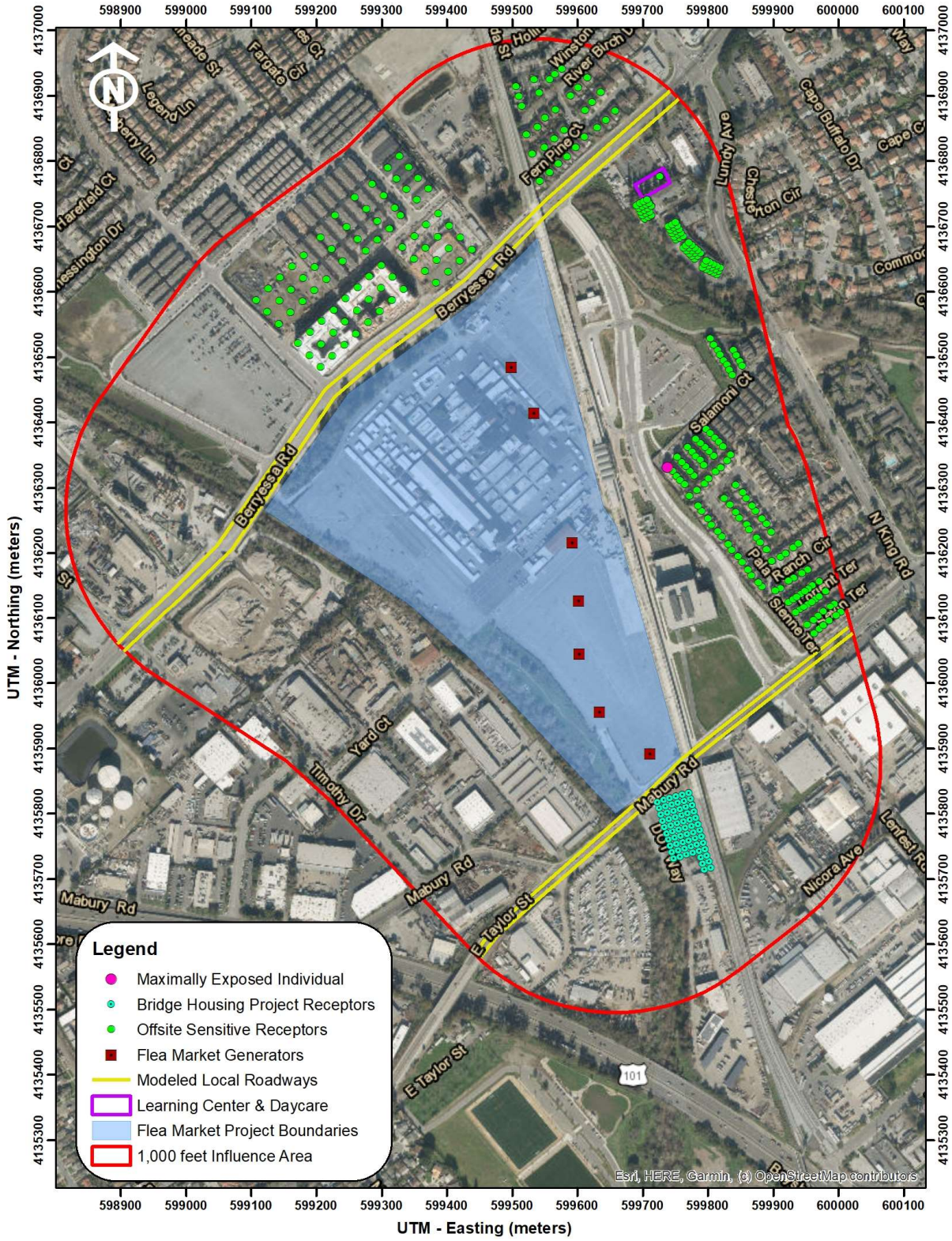
The same sources, meteorological data, and emissions were used to model the operation risk impacts at these facilities. A breathing height of three feet (one meter) was assumed for the students.

Predicted Project Generator Community Risk and Hazards

For the students (infants and children) at both facilities, the exposure period would be 12 years. They would be exposed to the project generators during the last six years of the exposure period. The maximum increased cancer risk at the Genius Kids Berryessa preschool was computed assuming infant exposure for 250 days per year to account for when the facility operates during breaks/holidays. The maximum increased cancer risk at the Best Brains Berryessa learning center was computed assuming child exposure for approximately 156 days per year since the facility operates three days per week. A student adjustment factor was applied since the project generators would be a non-continuous source and the students would not be present during the entire period.[29] Table 16 lists the project generator risk and hazards at both sites.

[29] OEHHA, 2015. *Air Toxics Hot Spot Program*. February. Web: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

Figure 2. Modeled Local Roadways, Location of Project Generators, Locations of Off-Site Sensitive Receptors and Maximum TAC Impacts



Summary of Project-Related Community Risks at Offsite Project MEI

For this project, the sensitive receptor identified in Figure 1 as the increased cancer risk MEI is also the project MEI since this receptor is exposed to the highest concentration of project impacts. At this location, the MEI would be exposed to six years of construction cancer risks and 24 years of operational (includes traffic and emergency backup generators) cancer risks. The cancer risks from construction and operation of the project were summed together. The annual $PM_{2.5}$ concentration, and HI values are based on an annual maximum risk for the entirety of the project.

As shown in Table 15, the unmitigated maximum cancer risks from construction and operation activities would exceed the single-source significance thresholds. However, the mitigated increased cancer risk would not exceed the BAAQMD single-source significance thresholds. The non-cancerous hazards (i.e. $PM_{2.5}$ and HI) from construction and operation activities would not exceed the single-source significance threshold, unmitigated or mitigated. Therefore, the mitigated project risks and hazards would not exceed the BAAQMD single-source thresholds.

Table 15. Construction and Operation Risk Impacts at the Offsite Project MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Unmitigated Project Construction (Years 0-6)	9.2 (infant)	0.06	0.01
Mitigated Project Construction (Years 0-6)	4.6 (infant)	0.02	<0.01
Option 1 and Option 2 Project Traffic on Berryessa Road and Mabury Road (Years 7-30)	<0.1	0.01	<0.01
Project Generators (Years 7-30)	1.6	0.01	<0.01
Option 1 and Option 2 Unmitigated Total/Maximum Project (Years 0-30)	**10.9**	0.06	0.01
Option 1 and Option 2 Mitigated Total/Maximum Project (Years 0-30)	6.3	0.02	0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	*No*	*No*
Mitigated	*No*	*No*	*No*

Notes: The risks and hazards from the Project traffic and the City's preferred project traffic round to the same values

Summary of Project-Related Community Risks at Learning Center and Daycare

Table 16 lists the increased cancer risk, $PM_{2.5}$ concentration and HI value from construction and operation of the project. Infant exposure was assumed for the Genius Kids Berryessa preschool and daycare, while child exposure was assumed for the Best Brains Berryessa learning center. None of the predicted risks or hazards from either site would exceed the BAAQMD single-source thresholds. The project would not have an incremental risk impact at either facility during construction or operation.

Table 16. Construction and Operation Risk Impacts at the Nearby Learning Centers and Daycare

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction			
Genius Kids Berryessa (Years 1-6)	5.1 (infant)	0.01	<0.01
Best Brains Berryessa (Years 1-6)	0.4 (child)	0.01	<0.01
Option 1 and Option 2 Project Traffic on Berryessa Road and Mabury Road (Years 7-12) – Infant Exposure	0.3 (infant)	0.03	<0.01
Option 1 and Option 2 Project Traffic on Berryessa Road and Mabury Road (Years 7-12) – Child Exposure	<0.1 (child)	0.03	<0.01
Project Generators (Years 7-12) – Infant Exposure	2.7	<0.01	<0.01
Project Generators (Years 7-12) – Child Exposure	0.2	<0.01	<0.01
Genius Kids Berryessa (Years 1-12) – Infant Exposure	8.1	0.03	<0.01
Best Brains Berryessa (Years 1-12) – Child Exposure	0.7	0.03	0<.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*

Notes: The risks and hazards from the Project traffic and the City's preferred project traffic round to the same values

Cumulative Impact of All TAC Sources on the Offsite Project MEI

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site (i.e. influence area). These sources include rail lines, freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicates that traffic on Berryessa Road, Marbury Road exceed 10,000 vehicles per day. Other nearby streets are assumed to have significantly less than 10,000 vehicles per day. A review of BAAQMD's stationary source Google Earth map tool identified five stationary sources with the potential to affect the project MEI. Figure 3 shows the location of the sources affecting the MEI. Community risk impacts from these sources upon the MEI reported in Table 18. Details of the modeling and community risk calculations are included in *Attachment 5*.

Local Roadways

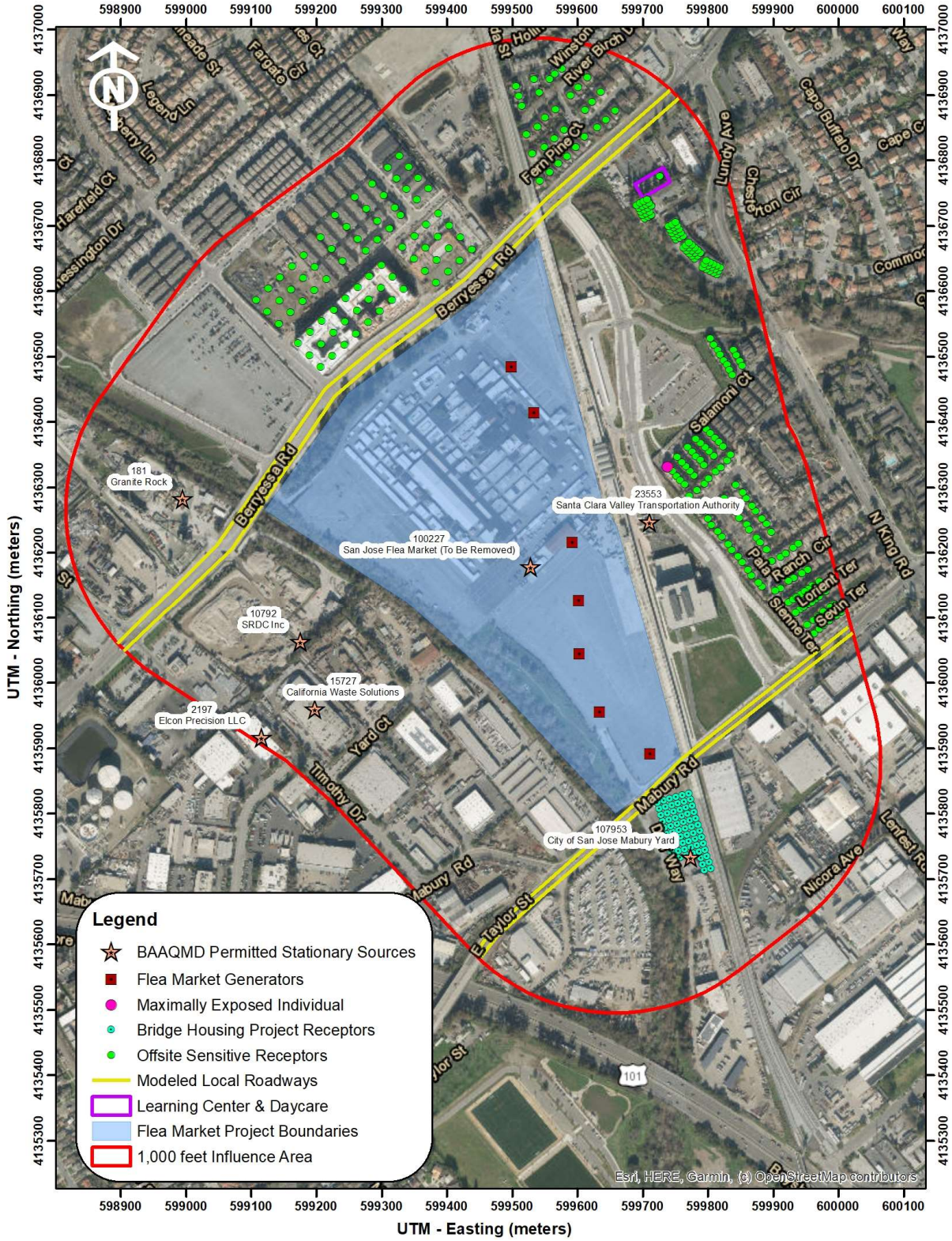
The same inputs (with the exception of ADT) and modeling done to compute the risks and hazards risks from cumulative traffic on Berryessa Road and Mabury Road from Option 1 and Option 2 (see above). However, an exposure period of 30-years was used instead of a 24-year exposure period, and a start year of 2023 since the existing off-site receptors are already exposed to traffic along these local roadways. The ADTs used for the cumulative traffic modeling are listed in Table 17.

Table 17. 2030 Cumualtive Traffic Volumes on Berryessa Road and Mabury Road

Scenario	Berryessa Road ADT*		Total Trips	Mabury Road ADT**		Total Trips
	Eastbound	Westbound		Eastbound	Westbound	
Option 1 (Proposed Project) *West of Sierra Road*	219,560	23,646	42,205	18,408	23,082	41,490
Option 1 (Proposed Project) *East of Sierra Road*	117,994	21.540	39,534	14,664	18,636	33,300
Option 2 (City's Project) *West of Sierra Road*	17,442	21,552	38,993	17,376	21,636	39,012
Option 2 (City's Project) *East of Sierra Road*	15,810	19,368	35,178	13,752	18,012	31,764

Note: *Berryessa ADT volumes are based on the Berryessa Interchange. **Mabury ADT volumes are based on the Mabury Interchange.

Figure 3. Project Site and Nearby Existing and Project TAC and $PM_{2.5}$ Sources



Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018* GIS website.[30] This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts. Seven sources were identified using this tool with one source being concrete/asphalt facilities (Granite Rock), two sources being a waste management/recycling facility (California Waste Solutions and SRDC Inc.) and , one source being a metal finisher (Elcon Precision LLC), one source being a diesel generator (Santa Clara Valley Transportation Authority [VTA]), and the final two being a gas dispensing facility (Flea Market and City of San Jose Mabury Yard). One of the gas dispensing facilities is part of the existing Flea Market site and would be removed due to the project. The risks and hazards from the Flea Market gas dispensing facility would be netted out of the cumulative risk and hazards.

A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. BAAQMD provided updated emissions data.[31] The air district provided average daily emissions for all the sources identified. For the Granite Rock and Santa Clara VTA facilities, the average daily emissions for particulates was adjusted with the CARB particulate matter size fraction for source categories to estimate the concentration of $PM_{2.5}$ from the total particulate matter daily emissions.[32] Additionally, BAAQMD noted that $PM_{2.5}$ emissions were not provided for the SRDC, Inc. (Plant #10792), so a public record request was submitted for this facility.[33]

The average daily emissions for all sources except for the SRDC facility were input into BAAQMD's *Risk and Hazards Emissions Screening Calculator* which computes the cancer risk, annual $PM_{2.5}$ concentrations, and HI using adjustments to account for new OEHHA guidance and distance from the sources. The unadjusted and adjusted screening level risks and hazards for these sources were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines, Gasoline Dispensing Facility Distance Multiplier Tool*, or *Generic Distance Multiplier Tool* when appropriate.

For the SRDC facility, BAAQMD public records department provided the average daily PM emissions, which were adjusted with the EPA average weight fraction for mineral products (PM profile number 900013). This source was then modeled in AERMOD using an area source to represent the facility with a release height of 6.6 feet (2 meters). The facility operates from 7:00am to 3:30pm, but the site was modeled as operating for nine hours to account for opening and closing time. Results from this modeling the screening calculator are listed in Table 18.

[30] BAAQMD, Web: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65
[31] Correspondence with Areana Flores, BAAQMD, 12 September 2019.
[32] The total particulate average daily emissions from BAAQMD include $PM_{2.5}$ and PM_{10}. Since PM_{10} is not respirable per BAAQMD, the particulate matter concentration should be adjusted to account only for the $PM_{2.5}$ concentration.
[33] Correspondence with BAAQMD Public Records, 7 October 2019.

Summary of Cumulative TAC Risks at the Offsite Project MEI

Table 18 reports both the project and cumulative community risk impacts. The project would have an exceedance with respect to community risk caused by project construction and operation activities, since the maximum unmitigated cancer exceeds the BAAQMD single-source thresholds of greater than 10 per million. The combined increased cancer risk, annual $PM_{2.5}$ concentration, and HI values (unmitigated or mitigated) would not exceed the BAAQMD cumulative source thresholds. The project would not contribute to a cumulative increase in TAC emissions within the local area.

Table 18. Impacts from Cumulative TAC Sources at Offsite MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Option 1 and Option 2 Unmitigated Total/Maximum Project	10.9	0.06	0.01
Option 1 and Option 2 Mitigated Total/Maximum Project	6.3	0.02	0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>0.1***
Option 1 Cumulative Project Traffic Berryessa Road and Mabury Road	1.1	0.09	<0.01
Option 2 Cumulative Project Traffic Berryessa Road and Mabury Road	1.0	0.08	<0.01
Granite Rock (Plant #181, Asphalt Batch Plant) MEI Distance: >1,000 feet east	-	0.02	-
Elcon Precision LLC (Plant #2197, Metal Finisher) MEI Distance >1,000 feet east	-	-	<0.01
California Waste Solution (Plant #15727, Recycling Facility) Mei Distance >1,000 feet east	-	0.03	-
Santa Clara Valley Transportation Authority (Plant #23553, Generator) MEI Distance: 240 feet northeast	0.1	<0.01	<0.01
SRDC Inc (Plant #10792, Multiple Sources) MEI Distance: > 1,000 feet east	-	<0.01	-
City of San Jose Mabury Yard (Plant #107953, Gas Dispensing Facility) MEI Distance >1,000 feet northeast	<0.1	-	-
Removing TAC Source: San Jose Flea Market (Plant #100227, Gas Dispensing Facility)	*-0.1*	-	-
Option 1 Cumulative Total			
Unmitigated	12.1	0.22	<0.04
Mitigated	7.5	0.18	<0.04
Option 2 Cumulative Total			
Unmitigated	12.0	0.21	<0.04
Mitigated	7.4	0.17	<0.04
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Option 1 or Option 2 Cumulative Total Exceed Threshold?			
Unmitigated	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*

Non-CEQA Impacts: Exposure of Project Residents to Existing TACs Source

Additionally, a health risk assessment was completed to analyze the impact existing TAC sources would have on the new proposed sensitive receptors (i.e. residents) that that project would introduce. Per *CBIA v. BAAQMD*, lead agencies are not required to analyze the impacts of existing conditions on a project's future residents. However, a community risk assessment was completed for the project's receptors for informational purposes only. The same TAC sources identified above were used in this HRA assessment. Figure 4 shows the nearby TAC sources and the onsite residential sensitive receptors that would be introduced by the project. All results are listed in Table 19. *Attachment 5* includes the dispersion modeling and risk calculations for TAC source impacts upon the proposed onsite sensitive receptors.

Local Roadways

The roadway analysis was done in the same manner for the new project sensitive receptors as described in the project traffic dispersion modeling section (see above). However, a 30-year exposure period was used in the risk calculations instead of an adjusted 24-year exposure period. The onsite residential receptors would be continuously exposed to traffic. Additionally, a breathing height of 15 feet (4.5 meters) and 25 feet (7.6) were used since the residences would start on the second floor of the residential developments. The closest proposed residential sensitive receptor is approximately 200 feet south of Berryessa Road and over 1,000 feet north of Mabry Road. The cumulative traffic volumes (see Table 17) for Options 1 and 2 were used to assess the risk and hazards from traffic.

Stationary Sources

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

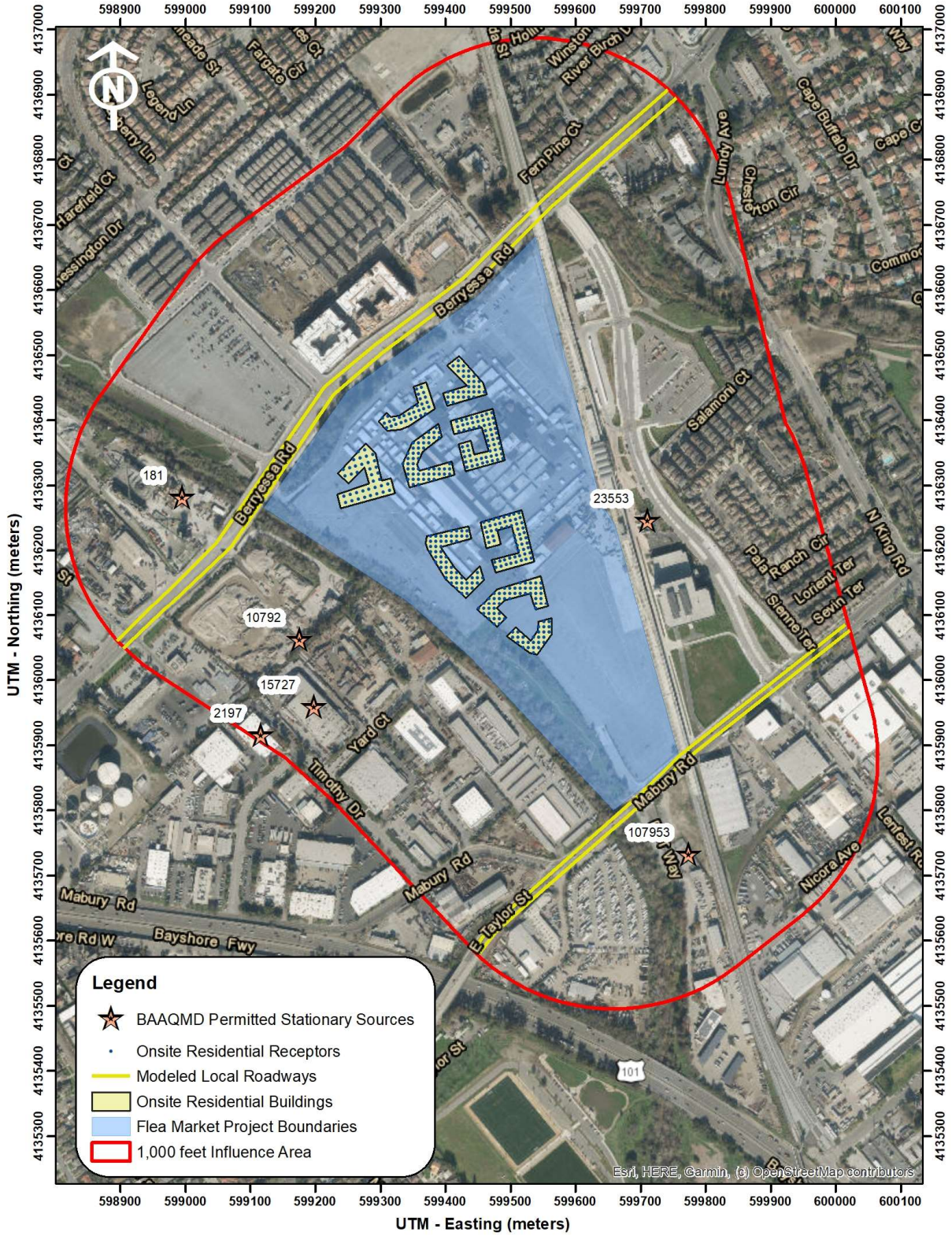
Cumulative Community Health Risk at Project Site

Community risk impacts from the existing and project TAC sources upon the project site are reported in Table 19. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, none of the sources exceed the single-source or cumulative-source thresholds.

Table 19. Impacts from Cumulative TAC Sources at the Project Site

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Option 1 Cumulative Project Traffic Berryessa Road and Mabury Road	2.8	0.26	<0.01
Option 2 Cumulative Project Traffic Berryessa Road and Mabury Road	3.1	0.23	<0.01
Granite Rock (Plant #181, Asphalt Batch Plant) MEI Distance: >1,000 feet east	-	0.04	-
Elcon Precision LLC (Plant #2197, Metal Finisher) MEI Distance >1,000 feet east	-	-	<0.01
California Waste Solution (Plant #15727, Recycling Facility) Mei Distance >1,000 feet east	-	0.04	-
Santa Clara Valley Transportation Authority (Plant #23553, Generator) MEI Distance: 240 feet northeast	<0.1	<0.01	<0.01
SRDC Inc (Plant #10792, Multiple Sources) MEI Distance: > 1,000 feet east	-	0.01	-
City of San Jose Mabury Yard (Plant #107953, Gas Dispensing Facility) MEI Distance >1,000 feet northeast	<0.1	-	-
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>0.1***
Option 1 Cumulative Total	3.0	0.36	<0.03
Option 2 Cumulative Total	3.3	0.33	<0.03
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceeds Threshold? Unmitigated Mitigated	 *No* *No*	 *No* *No*	 *No* *No*

Figure 4. Onsite Receptors and Nearby Existing and Project 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 California 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*.[34] 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

[34] 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.[35] 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

[35] 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.[36]

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).[37] 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.[38] 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.[39] The Bay Area GHG emission were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011.

Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 MT or 4.6 MT per service population per year. 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. Also, compliance with qualified GHG reduction plan could also be used as a threshold but the City of San José does not have a current qualified GHG reduction plan that could be used in this analysis.

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 the projected 2030 statewide population and employment levels[40]. The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold.

[36] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
[37] 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
[38] 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
[39] 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.
[40] 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, 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 Emissions

The project service population efficiency rate is based on the number of future residents and employees. For this project, the total number of residents was estimated using the California Department of Finance household rate of 3.19 person/household. The total number of office employees was estimated using a rate of 1 employee per every 300 square feet. The total residential population would be approximately 11,006 persons based on 3,450 dwelling units for both Option 1 and 2. For Option 1, the total employee population would be approximately 7,333 employees, and for Option 2 the total number of employees would be approximately 11,333 employees The total service population would be 18,339 persons for Option 1 and 22,339 person for Option 2.

Construction GHG Emissions

GHG unmitigated emissions associated with construction were computed to be 33,927 MT of CO_2e for both Option 1 and 2 total construction periods. The emissions were computed using CalEEMod and EMFAC2017. 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. The effects from project-specific sustainability measures were not included in this analysis.

To be considered an exceedance, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in 2030. Emissions from 2030 must be below at least one of the thresholds.

As shown in Table 20 annual emissions from both Option 1 and 2 would exceed the bright line threshold of 660 MT CO_2e/year in 2030. However, the service population emissions from Option 1 and 2 would not exceed the threshold of 2.6 MT CO_2e/year/service population in 2030. Therefore, the project would not be in exceedance for GHG emissions in the opening year or future year.

Table 20. Annual Project GHG Emissions (CO_2e) in Metric Tons and Service Population

Source Category	Proposed Project in 2029	Proposed Project in 2030
Option 1		
Area	43	43
Energy Consumption	1,937	1,937
Mobile	19,686	19,275
Solid Waste Generation	1,842	1,842
Water Usage	837	837
Total (MT CO_{2e}/year)	24,345	23,934
Service Population Emissions (MT CO_{2e}/year/service population)	1.33	1.31
Option 2		
Area	43	43
Energy Consumption	2,991	2,991
Mobile	24,193	23,689
Solid Waste Generation	2,403	2,403
Water Usage	1,123	1,123
Total (MT CO_{2e}/year)	30,754	30,249
Service Population Emissions (MT CO_{2e}/year/service population)	1.38	1.35
Metric Ton Significance Threshold	**-**	***660 MT CO_2e/year***
Service Population Significance Threshold	**-**	***2.6 MT CO_2e/Year/Service Population in 2030***
Exceeds both thresholds?		
Option 1		*No*
Option 2		*No*

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. The operational output for existing uses and 2030 project uses are also included in this attachment. 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. Due to the large size of the BAAQMD health risk calculators, these files were not included but are available upon request and would be provided in digital format.

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.[41] 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.[42] 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.[43] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

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

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). 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 for residential exposures, 95th percentile breathing rates are used for the third trimester and infant

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

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* →	Infant		Child	Adult
	Age Range →	3rd Trimester	0<2	2 < 16	16 - 30
DPM Cancer Potency Factor (mg/kg-day)$^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 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

Used for the hauling volumes and the start date

ject Name: Flea Market South Side

Project Size	____	Dwelling Units	60	total project acres disturbed
	____	s.f. residential	____	s.f. retail
	____	s.f. office/commercial	____	s.f. other, specify:
	____	s.f. other, specify:		
	____	s.f. parking garage	____	spaces
	____	s.f. parking lot	____	spaces
Construction Hours	7:00	am to	5:00	pm

Complete ALL Portions in Yellow

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Comments
	Demolition	Start Date:	4/15/2023	Total phase:	87		Overall Import/Export Volumes
		End Date:	8/15/2023				
1	Concrete/Industrial Saws	81	0.73	8	20	1.8390805	Demolition Volume
4	Excavators	162	0.38	8	80	7.3563218	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	255	0.4	8	80	7.3563218	(*or* total tons to be hauled)
3	Tractors/Loaders/Backhoes	97	0.37	8	80	7.3563218	200,000 square feet *or*
							_?_ Hauling volume (tons)
	Site Preperation	Start Date:	8/16/2023	Total phase:	23		Any pavement demolished and hauled? 46,000 tons
		End Date:	9/16/2023				Soil Hauling Volume
2	Graders	174	0.41	8	13	4.5217391	
2	Rubber Tired Dozers	255	0.4	8	13	4.5217391	Export volume = _0_ cubic yards?
1	Tractors/Loaders/Backhoes	97	0.37	8	13	4.5217391	Import volume = 70,000 cubic yards?
	Grading / Excavation	Start Date:	9/17/2023	Total phase:	40		
		End Date:	11/10/2023				Soil Hauling Volume
4	Scrapers	361	0.48	8	5	1	(Same as above in Site Prep.)
1	Excavators	162	0.38	8	5	1	Export volume = _0_ cubic yards?
2	Graders	174	0.41	8	33	6.6	Import volume = 70,000 cubic yards?
2	Rubber Tired Dozers	255	0.4	8	33	6.6	
1	Tractors/Loaders/Backhoes	97	0.37	8	33	6.6	
	Other Equipment?						
	~~Trenching~~	~~Start Date:~~		~~Total phase:~~			
		~~End Date:~~					
	~~Tractor/Loader/Backhoe~~	~~97~~	~~0.37~~			#DIV/0!	
	~~Excavators~~	~~162~~	~~0.38~~			#DIV/0!	
	~~*Other Equipment?*~~						
	~~Building - Exterior~~	~~Start Date:~~		~~Total phase:~~			~~Cement Trucks? _?_ Total Round-Trips~~
		~~End Date:~~					
	~~Cranes~~	~~226~~	~~0.29~~			#DIV/0!	~~Electric? (Y/N) __ Otherwise assumed diesel~~
	~~Forklifts~~	~~89~~	~~0.2~~			#DIV/0!	~~Liquid Propane (LPG)? (Y/N) __ Otherwise Assumed diesel~~
	~~Generator Sets~~	~~84~~	~~0.74~~			#DIV/0!	~~Or temporary line power? (Y/N) __~~
	~~Tractors/Loaders/Backhoes~~	~~97~~	~~0.37~~			#DIV/0!	~~otherwise, assume diesel generator~~
	~~Welders~~	~~46~~	~~0.45~~			#DIV/0!	
	~~*Other Equipment?*~~					#DIV/0!	
~~rior/Architectural Coating~~		~~Start Date:~~		~~Total phase:~~			
		~~End Date:~~					
	~~Air Compressors~~	~~78~~	~~0.48~~			#DIV/0!	
	~~Aerial Lift~~	~~62~~	~~0.31~~			#DIV/0!	
	~~*Other Equipment?*~~						
	~~Paving~~	~~Start Date:~~		~~Total phase:~~			~~Asphalt? __ cubic yards or ___ round trips?~~
		~~End Date:~~					
	~~Cement and Mortar Mixers~~	~~9~~	~~0.56~~			#DIV/0!	
	~~Pavers~~	~~125~~	~~0.42~~			#DIV/0!	
	~~Paving Equipment~~	~~130~~	~~0.36~~			#DIV/0!	
	~~Rollers~~	~~80~~	~~0.38~~			#DIV/0!	
	~~Tractors/Loaders/Backhoes~~	~~97~~	~~0.37~~			#DIV/0!	
	~~*Other Equipment?*~~						

eet is to provide an example of inputs — Add or subtract phases and equipment, as appropriate

rucks would be used during grading — Modify horepower or load factor, as appropriate

Typical Equipment Type & Load Factors

OFFROAD Equipment Type	HP	Load Factor
Aerial Lifts	62	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	205	0.5
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	226	0.29
Crawler Tractors	208	0.43
Crushing/Proc. Equipment	85	0.78
Dumpers/Tenders	16	0.38
Excavators	162	0.38
Forklifts	89	0.2
Generator Sets	84	0.74
Graders	174	0.41
Off-Highway Tractors	122	0.44
Off-Highway Trucks	400	0.38
Other Construction Equipment	171	0.42
Other General Industrial Equipment	150	0.34
Other Material Handling Equipment	167	0.4
Pavers	125	0.42
Paving Equipment	130	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.2
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.4
Rubber Tired Dozers	255	0.4
Rubber Tired Loaders	199	0.36
Scrapers	361	0.48
Signal Boards	6	0.82
Skid Steer Loaders	64	0.37
Surfacing Equipment	253	0.3
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	80	0.5
Welders	46	0.45

Traffic Consultant Trip Gen					CalEEMod Default		
Land Use	**Size**	**Daily Trips**	**New Trips**	**Weekday Trip Gen**	**Weekday**	**Sat**	**Sun**
General Office Building	2,200,000	22,314	18410	***8.37***	11.03	2.46	1.05
Reduction		*-563*			*Rev*	***1.87***	***0.80***
Reduction		*-1740*					
Reduction		-1601					
ifamily Housing	3,450	18768	14418	***4.18***	6.65	6.39	5.86
Reduction		*-563*			*Rev*	***4.02***	***3.68***
Reduction		*-2185*					
Reduction		-1602					

Flea Market - Proposed Project Trip Generation Estimates

	VMT		Reduction		Daily		AM Peak Hour						PM Peak Hour					
								Split		Trip				Split		Trip		
Land Use (LU)	**Existing**	**Project**	**%**	**Size**	**Rate**	**Trip**	**Rate**	**In**	**Out**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**In**	**Out**	**Total**
Using ITE Trip Rates																		
Multifamily Housing (Mid-Rise) (ITE LU 221)				3,450 Dwelling Units	5.44	18,768	0.36	26%	74%	323	919	1,242	0.44	61%	39%	926	592	1,518
housing and employment mixed-use reduction[1]			3%			-563				-10	-28	-38				-28	-18	-46
Location based reduction[2]			12%			-2,185				-38	-107	-145				-108	-69	-177
VMT reduction[3]	12.63	11.37	*10%*			-1,602				-28	-78	-106				-79	-51	-130
General Office Building (ITE LU 710)				2,291,000 Square Feet	9.74	22,314	1.16	86%	14%	2,286	372	2,658	1.15	16%	84%	422	2,213	2,635
housing and employment mixed-use reduction[1]			3%			-563				-28	-10	-38				-18	-28	-46
Location based reduction[2]			8%			-1,740				-181	-29	-210				-32	-175	-207
VMT reduction[3]	13.10	12.02	*8%*			-1,601				-166	-27	-193				-30	-161	-191
Total Proposed Project Trips						**32,828**				**2,158**	**1,012**	**3,170**				**1,053**	**2,303**	**3,356**
Travel Demand Forecasting Model[4]						**33,683**				**1,444**	**1,447**	**2,891**				**1,871**	**1,934**	**3,805**
Difference (Model - ITE)						**855**				**-714**	**435**	**-279**				**818**	**-369**	**449**

Source: ITE Trip Generation Manual, 10th Edition 2017

[1]As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and employment components is equal to 3% off the smaller trip generator.

[2]The project site is located within an suburban with multi-family homes area based on the City of San Jose VMT Evaluation Tool (February 29, 2019) - sketch tool. 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 other modes of travel beside vehicle.

[3]Existing and project VMTs per capita were estimated using the sketch tool. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips.

[4]AM and PM trip estimates were based on the City of San Jose travel demand forecasting model runs completed in April 2020 by Hexagon Transportation Consultants. The daily trips were estimated by applying a proportional ratio of the ITE trip peak hour and daily trip estimates.

Traffic Consultant Trip Gen					CalEEMod Default		
Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
General Office Building	3,400,000	33,116	26954	***7.93***	11.03	2.46	1.05
Reduction		*-563*			*Rev*	***1.77***	***0.75***
Reduction		*-2604*					
Reduction		-2995					
ifamily Housing	3,450	18768	14418	***4.18***	6.65	6.39	5.86
Reduction		*-563*			*Rev*	***4.02***	***3.68***
Reduction		*-2185*					
Reduction		-1602					

Flea Market - City's Development Alternative Generation Estimates

	VMT		Reduction		Daily		AM Peak Hour						PM Peak Hour					
								Split		Trip				Split		Trip		
Land Use (LU)	Existing	Project	%	Size	Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Using ITE Trip Rates																		
Multifamily Housing (Mid-Rise) (ITE LU 221)				3,450 Dwelling Units	5.44	18,768	0.36	26%	74%	323	919	1,242	0.44	61%	39%	926	592	1,518
housing and employment mixed-use reduction[1]			3%			-563				-10	-28	-38				-28	-18	-46
Location based reduction[2]			12%			-2,185				-38	-107	-145				-108	-69	-177
VMT reduction[3]	12.63	11.37	*10%*			-1,602				-28	-78	-106				-79	-51	-130
General Office Building (ITE LU 710)				3,400,000 Square Feet	9.74	33,116	1.16	86%	14%	3,392	552	3,944	1.15	16%	84%	626	3,284	3,910
housing and employment mixed-use reduction[1]			3%			-563				-28	-10	-38				-18	-28	-46
Location based reduction[2]			8%			-2,604				-269	-43	-312				-49	-260	-309
VMT reduction[3]	13.10	11.79	*10%*			-2,995				-310	-50	-360				-56	-300	-356
Total Proposed Project Trips						**41,372**				**3,032**	**1,155**	**4,187**				**1,214**	**3,150**	**4,364**
Travel Demand Forecasting Model[4]						**34,879**				**1,694**	**1,284**	**2,978**				**1,902**	**2,329**	**4,231**
Difference (Model - ITE)						**-6,493**				**-1,338**	**129**	**-1,209**				**688**	**-821**	**-133**

Source: ITE Trip Generation Manual, 10th Edition 2017

[1]As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and employment components is equal to 3% off the smaller trip generator.

[2]The project site is located within an suburban with multi-family homes area based on the City of San Jose VMT Evaluation Tool (February 29, 2019) - sketch tool. 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 other modes of travel beside vehicle.

[3]Existing and project VMTs per capita were estimated using the sketch tool. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips.

[4]AM and PM trip estimates were based on the City of San Jose travel demand forecasting model runs completed in April 2020 by Hexagon Transportation Consultants. The daily trips were estimated by applying a proportional ratio of the ITE trip peak hour and daily trip estimates.

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Unmitigated Construction Criteria Air Pollutants (Option 1)						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons					
2023	0.299	2.969	0.132	0.122	473	
2024	0.193	1.761	0.080	0.076	306	
2025	0.179	1.627	0.069	0.065	304	
2026	0.179	1.627	0.069	0.065	304	
2027	0.179	1.627	0.069	0.065	304	
2028	36.623	0.552	0.026	0.024	120	
Equipment Total	*38*	*10*	*0*	*0*	*1,812*	
2023	0.763	6.218	0.645	0.472	4,506	
2024	1.005	8.653	0.904	0.662	6,173	
2025	0.947	8.536	0.901	0.660	6,003	
2026	0.898	8.438	0.900	0.660	5,859	
2027	0.855	8.337	0.899	0.660	5,718	
2028	0.564	5.698	0.620	0.455	3,856	
emfac2017 total	*5.0*	*46*	*5*	*4*	*32,115*	
	Total Construction Emissions					
Tons	42.7	56.0	5.3	4.0	35,740	
	Average Daily Emissions				Workdays	1,410
Pounds/Workdays	60.5	79.5	7.5	5.6		

Mitigated Construction Criteria Air Pollutants (Option 1) - Tier 4 Final						
Unmitigated	ROG*	NOX**	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons					
2023	0.065	0.296	0.009	0.009	473	
2024	0.043	0.293	0.005	0.005	306	
2025	0.043	0.292	0.005	0.005	304	
2026	0.043	0.292	0.005	0.005	304	
2027	0.043	0.292	0.005	0.005	304	
2028	16.582	0.084	0.002	0.002	120	
Equipment Total	*17*	*2*	*0*	*0*	*1812*	
2023	0.618	4.788	0.645	0.472	4,280	
2024	0.895	6.144	0.904	0.662	5,864	
2025	0.767	6.232	0.901	0.660	5,703	
2026	0.827	6.244	0.900	0.660	5,566	
2027	0.796	6.336	0.899	0.660	5,375	
2028	0.530	4.273	0.620	0.455	3,702	
emfac2017 total	*4.4*	*34*	*5*	*4*	*30,491*	
	Total Construction Emissions					
Tons	21.3	35.6	4.9	3.6	34,115	
	Average Daily Emissions				Workdays	1,410
Pounds/Workdays	30.1	50.4	7.0	5.1		

*Construction Interior and Exterior VOC rate is reduced, **Truck Hauling (MDHT & HHDT) reduced for 2014 or newer fleet only

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	35.2792	17.2425	14.1506	4.3899		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	35.3	17.2	14.2	4.4		
	Average Daily Emissions					
Pounds Per Day	193.3	94.5	77.5	24.1		

Mitigated Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	29.9099	17.2425	14.1506	4.3899		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	29.9	17.2	14.2	4.4		
	Average Daily Emissions					
Pounds Per Day	163.9	94.5	77.5	24.1		

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Area	43		43	
Energy	1,937		1,937	
Mobile	19,686		19,275	
Waste	1,842		1,842	
Water	837		837	
TOTAL	24,345	0	23,934	
Service Population	18,339			
Per Capita Emissions		1.33		1.31

Residents	11,006	
General Office	7,333.33	Traditional Office

CalEEMod

EMFAC2017

Unmitigated Construction Criteria Air Pollutants (Option 1)						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons					
2023	0.299	2.969	0.132	0.122	473	
2024	0.193	1.761	0.080	0.076	306	
2025	0.179	1.627	0.069	0.065	304	
2026	0.179	1.627	0.069	0.065	304	
2027	0.179	1.627	0.069	0.065	304	
2028	42.880	0.552	0.026	0.024	120	
Equipment Total	*44*	*10*	*0*	*0*	*1,812*	
2023	0.763	6.218	0.645	0.472	4,506	
2024	1.005	8.653	0.904	0.662	6,173	
2025	0.947	8.536	0.901	0.660	6,003	
2026	0.898	8.438	0.900	0.660	5,859	
2027	0.855	8.337	0.899	0.660	5,718	
2028	0.564	5.698	0.620	0.455	3,856	
emfac2017 total	*5.0*	*46*	*5*	*4*	*32,115*	
	Total Construction Emissions					
Tons	48.9	56.0	5.3	4.0	35,740	
	Average Daily Emissions				Workdays	1,410
Pounds/Workdays	69.4	79.5	7.5	5.6		

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	42.4612	21.262	17.3909	5.3928		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	42.5	21.3	17.4	5.4		
	Average Daily Emissions					
Pounds Per Day	232.7	116.5	95.3	29.5		

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Area	43		43	
Energy	2,991		2,991	
Mobile	24,193		23,689	
Waste	2,403		2,403	
Water	1,123		1,123	
TOTAL	30,754	0	30,249	0
Service Population	22339			
Per Capita Emissions		1.38		1.35

Residents 11,006
General Office 11,333.33 Traditional Office

Mitigated Construction Criteria Air Pollutants (Option 1) - Tier 4 Final						
Unmitigated	ROG*	NOX**	PM10 Exhaust	PM2.5 Exhaust	**CO2e**	
Year	Tons					
2023	0.065	0.296	0.009	0.009	473	
2024	0.043	0.293	0.005	0.005	306	
2025	0.043	0.292	0.005	0.005	304	
2026	0.043	0.292	0.005	0.005	304	
2027	0.043	0.292	0.005	0.005	304	
2028	19.419	0.084	0.002	0.002	120	
Equipment Total	*20*	*2*	*0*	*0*	*1812*	
2023	0.763	4.788	0.645	0.472	4,506	
2024	1.005	6.144	0.904	0.662	6,173	
2025	0.947	6.232	0.901	0.660	6,003	
2026	0.898	6.244	0.900	0.660	5,859	
2027	0.855	6.336	0.899	0.660	5,718	
2028	0.564	4.273	0.620	0.455	3,856	
emfac2017 total	*5.0*	*34*	*5*	*4*	*32,115*	
	Total Construction Emissions					
Tons	24.7	35.6	4.9	3.6	35,740	
	Average Daily Emissions				Workdays	1,410
Pounds/Workdays	35.0	50.4	7.0	5.1		

*Construction Interior and Exterior VOC rate is reduced, **Truck Hauling (MDHT & HHDT) reduced for 2014 or newer fleet only

Operational Criteria Air Pollutants						
Unmitigated	ROG	NOX	Total PM10	Total PM2.5		
Year	Tons					
Total	41.6371	21.262	17.3909	5.3928		
	Existing Use Emissions					
Total						
	Net Annual Operational Emissions					
Tons/year	41.6	21.3	17.4	5.4		
	Average Daily Emissions					
Pounds Per Day	228.1	116.5	95.3	29.5		

Scenario	NOx	ROG	PM10
Bay Area Air Basin in 2015	**298 tons/day**	**259 tons/day**	**109 tons/day**
% of Basin	*0.01%*	*0.01%*	
Option 1 – Unmitigated Project Operation (tons/day)	0.05	0.10	0.04
% of Basin	*0.02%*	*0.04%*	*0.04%*
Option 2 – Unmitigated Project Operation (tons/day)	0.06	0.12	0.05
% of Basin	*0.02%*	*0.04%*	*0.04%*

Flea Market - AQ/GHG (Option 1)

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	2,200.00	1000sqft	0.00	2,200,000.00	0
Enclosed Parking with Elevator	7,960.00	Space	0.00	3,184,000.00	0
City Park	17.00	Acre	0.00	740,520.00	0
Apartments Mid Rise	3,450.00	Dwelling Unit	61.50	3,450,000.00	9867
Strip Mall	26.80	1000sqft	0.00	26,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
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 - PG&E 2017 rate for CO2 Intensity Factor

Land Use - Option 1: Residential = 3,450 DU, Commercial = 2.2 million sqft, City Park = 17 acres, Parking = 7,960 spaces. Retail = 26,800 sqft. 61.5-acres

Construction Phase - Default schedule + Specified Demo, Site Prep, Grading/Excavation from Project Applicant, Added a trenching phase

Off-road Equipment - Default equipment and usage

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Added Trenching Phase with default equipment assumptions

Trips and VMT - No Trips, using EMFAC2017

Demolition - Demolish 200,000-sqft

Grading - Based on the hauling construction information from project applicant (1.17.2019) and correspondance from 2.19.2020

Vehicle Trips - Apartment and Office project-specific trip rates. Assuming no park trips and default retail trips

Vehicle Emission Factors - 2029 Vehicle Emissions Santa Clara County

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No hearths or gas fireplaces

Energy Use - San Jose Reach Code, no natural gas in residential developments

Water And Wastewater - WTP 100%

Construction Off-road Equipment Mitigation - Advanced BMPs, Tier 4 mitigation

Area Mitigation -

Energy Mitigation - Reach Code SJ for carbon-free electricity with SJCE

Stationary Sources - Emergency Generators and Fire Pumps - Seven 1,000 kW generators assumed, one per office structure

Road Dust - Entrained road dust adjustment 0.0431

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	12
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	40.00	23.00
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tblFireplaces	FireplaceHourDay	3.50	0.00
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tblFireplaces	NumberNoFireplace	138.00	0.00

tblFireplaces	NumberWood	586.50	0.00
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tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
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tblFleetMix	HHD	0.02	0.02
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tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
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tblFleetMix	MCY	5.1390e-003	4.8280e-003
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tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
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tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004

tblFleetMix	SBUS	6.4500e-004	9.0400e-004
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tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
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tblGrading	MaterialImported	0.00	70,000.00
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tblLandUse	LotAcreage	0.62	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblRoadDust	RoadSiltLoading	0.1	0.0431
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	7.00
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tblTripsAndVMT	WorkerTripNumber	25.00	0.00
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tblVehicleEF	HHD	0.04	8.8330e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.8600e-004	1.0000e-006
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	4.5950e-003	6.0000e-005
tblVehicleEF	HHD	0.44	0.49
tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1400e-004	2.9600e-004
tblVehicleEF	HHD	0.08	3.0000e-006
tblVehicleEF	LDA	2.0380e-003	1.0360e-003
tblVehicleEF	LDA	2.3480e-003	0.03
tblVehicleEF	LDA	0.35	0.42
tblVehicleEF	LDA	0.68	1.76
tblVehicleEF	LDA	186.31	204.06
tblVehicleEF	LDA	43.86	43.14
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.2360e-003	9.9200e-004
tblVehicleEF	LDA	1.9290e-003	1.3490e-003
tblVehicleEF	LDA	1.1380e-003	9.1300e-004
tblVehicleEF	LDA	1.7740e-003	1.2400e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06

tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	5.1060e-003	3.5590e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.8640e-003	9.1000e-005
tblVehicleEF	LDA	4.4900e-004	0.00
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	7.4270e-003	5.1710e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.14
tblVehicleEF	LDT1	4.0970e-003	1.8800e-003
tblVehicleEF	LDT1	5.1740e-003	0.04
tblVehicleEF	LDT1	0.60	0.57
tblVehicleEF	LDT1	1.24	1.90
tblVehicleEF	LDT1	239.17	246.41
tblVehicleEF	LDT1	56.19	52.70
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT1	1.5670e-003	1.1520e-003
tblVehicleEF	LDT1	2.3160e-003	1.5580e-003
tblVehicleEF	LDT1	1.4410e-003	1.0600e-003
tblVehicleEF	LDT1	2.1290e-003	1.4330e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	7.4430e-003
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.07	0.17

tblVehicleEF	LDT1	2.3970e-003	2.5810e-003
tblVehicleEF	LDT1	5.8300e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.08	0.18
tblVehicleEF	LDT2	3.1920e-003	1.8670e-003
tblVehicleEF	LDT2	3.5040e-003	0.04
tblVehicleEF	LDT2	0.51	0.58
tblVehicleEF	LDT2	0.94	2.34
tblVehicleEF	LDT2	270.74	256.39
tblVehicleEF	LDT2	63.09	55.32
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.06	0.18
tblVehicleEF	LDT2	1.3880e-003	1.0840e-003
tblVehicleEF	LDT2	2.1170e-003	1.4110e-003
tblVehicleEF	LDT2	1.2770e-003	9.9800e-004
tblVehicleEF	LDT2	1.9460e-003	1.2970e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	7.9240e-003	7.1570e-003
tblVehicleEF	LDT2	0.06	0.35
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LDT2	2.7110e-003	9.6020e-003
tblVehicleEF	LDT2	6.4600e-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	0.01
tblVehicleEF	LDT2	0.06	0.35
tblVehicleEF	LDT2	0.05	0.21
tblVehicleEF	LHD1	4.1410e-003	4.2630e-003
tblVehicleEF	LHD1	9.6710e-003	5.5890e-003
tblVehicleEF	LHD1	0.01	9.6960e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.67	0.51
tblVehicleEF	LHD1	1.79	0.92
tblVehicleEF	LHD1	8.94	8.35
tblVehicleEF	LHD1	646.63	709.40
tblVehicleEF	LHD1	27.62	10.32
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.59	0.34
tblVehicleEF	LHD1	0.72	0.24
tblVehicleEF	LHD1	8.0600e-004	9.0500e-004
tblVehicleEF	LHD1	0.01	9.8860e-003
tblVehicleEF	LHD1	0.01	7.3630e-003
tblVehicleEF	LHD1	7.0200e-004	2.1700e-004
tblVehicleEF	LHD1	7.7200e-004	8.6600e-004
tblVehicleEF	LHD1	2.5940e-003	2.4720e-003
tblVehicleEF	LHD1	0.01	6.9990e-003
tblVehicleEF	LHD1	6.4500e-004	1.9900e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.27	0.43

tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD1	8.9000e-005	8.1000e-005
tblVehicleEF	LHD1	6.3210e-003	6.9190e-003
tblVehicleEF	LHD1	3.0900e-004	1.0200e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD2	2.6180e-003	2.5740e-003
tblVehicleEF	LHD2	3.5130e-003	5.1650e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.46	0.50
tblVehicleEF	LHD2	0.90	0.50
tblVehicleEF	LHD2	13.67	13.14
tblVehicleEF	LHD2	678.66	689.54
tblVehicleEF	LHD2	22.03	6.59
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.26	0.43
tblVehicleEF	LHD2	0.28	0.13
tblVehicleEF	LHD2	1.0710e-003	1.4940e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.6870e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0800e-004
tblVehicleEF	LHD2	1.0240e-003	1.4290e-003
tblVehicleEF	LHD2	2.7060e-003	2.7090e-003
tblVehicleEF	LHD2	9.2450e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.9000e-005

tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2500e-004
tblVehicleEF	LHD2	6.5940e-003	6.6520e-003
tblVehicleEF	LHD2	2.3600e-004	6.5000e-005
tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.62	17.72
tblVehicleEF	MCY	10.32	9.18
tblVehicleEF	MCY	171.24	209.80
tblVehicleEF	MCY	43.13	59.44
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1460e-003	2.1240e-003
tblVehicleEF	MCY	3.3780e-003	2.8870e-003
tblVehicleEF	MCY	2.0020e-003	1.9820e-003
tblVehicleEF	MCY	3.1630e-003	2.7020e-003
tblVehicleEF	MCY	0.88	1.79

tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.13	2.14
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.12	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.6200e-004	5.8800e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.67	2.67
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.31	2.05
tblVehicleEF	MDV	5.5000e-003	1.9360e-003
tblVehicleEF	MDV	7.9330e-003	0.05
tblVehicleEF	MDV	0.71	0.57
tblVehicleEF	MDV	1.62	2.40
tblVehicleEF	MDV	367.51	309.06
tblVehicleEF	MDV	84.52	65.31
tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	1.4670e-003	1.1000e-003
tblVehicleEF	MDV	2.1720e-003	1.4190e-003
tblVehicleEF	MDV	1.3510e-003	1.0140e-003
tblVehicleEF	MDV	1.9970e-003	1.3050e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	7.6040e-003
tblVehicleEF	MDV	0.09	0.36

tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.6760e-003	3.0540e-003
tblVehicleEF	MDV	8.7300e-004	6.4600e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	0.01	5.5400e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.64	0.38
tblVehicleEF	MH	3.95	1.69
tblVehicleEF	MH	1,187.29	1,370.22
tblVehicleEF	MH	57.03	15.90
tblVehicleEF	MH	0.89	1.10
tblVehicleEF	MH	0.65	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	9.1300e-004	2.1800e-004
tblVehicleEF	MH	3.2210e-003	3.2950e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.4000e-004	2.0000e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01

tblVehicleEF	MH	6.3900e-004	1.5700e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.26	0.08
tblVehicleEF	MHD	0.02	3.7880e-003
tblVehicleEF	MHD	2.8710e-003	1.0920e-003
tblVehicleEF	MHD	0.03	8.4000e-003
tblVehicleEF	MHD	0.37	0.40
tblVehicleEF	MHD	0.26	0.16
tblVehicleEF	MHD	3.91	0.89
tblVehicleEF	MHD	132.56	66.14
tblVehicleEF	MHD	1,170.12	1,006.37
tblVehicleEF	MHD	59.44	8.59
tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.05	1.43
tblVehicleEF	MHD	10.04	1.69
tblVehicleEF	MHD	5.9000e-005	1.8700e-004
tblVehicleEF	MHD	3.0300e-003	7.0280e-003
tblVehicleEF	MHD	8.2100e-004	1.1100e-004
tblVehicleEF	MHD	5.6000e-005	1.7900e-004
tblVehicleEF	MHD	2.8920e-003	6.7170e-003
tblVehicleEF	MHD	7.5500e-004	1.0200e-004
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.04	0.01

tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.24	0.04
tblVehicleEF	MHD	1.2770e-003	6.2800e-004
tblVehicleEF	MHD	0.01	9.6020e-003
tblVehicleEF	MHD	6.6300e-004	8.5000e-005
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	OBUS	0.01	7.0930e-003
tblVehicleEF	OBUS	4.3010e-003	2.3640e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.32	0.28
tblVehicleEF	OBUS	4.16	1.61
tblVehicleEF	OBUS	111.44	97.29
tblVehicleEF	OBUS	1,275.89	1,225.69
tblVehicleEF	OBUS	65.07	13.68
tblVehicleEF	OBUS	0.25	0.43
tblVehicleEF	OBUS	0.89	1.44
tblVehicleEF	OBUS	2.75	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4100e-004
tblVehicleEF	OBUS	2.8900e-003	7.7790e-003
tblVehicleEF	OBUS	9.2700e-004	1.5500e-004
tblVehicleEF	OBUS	2.1000e-005	1.3500e-004
tblVehicleEF	OBUS	2.7430e-003	7.4280e-003
tblVehicleEF	OBUS	8.5200e-004	1.4200e-004

tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0750e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2400e-004	1.3500e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.29	0.09
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	8.9530e-003	4.6480e-003
tblVehicleEF	SBUS	0.06	6.0510e-003
tblVehicleEF	SBUS	8.77	2.81
tblVehicleEF	SBUS	0.56	0.39
tblVehicleEF	SBUS	7.85	0.83
tblVehicleEF	SBUS	1,034.78	339.74
tblVehicleEF	SBUS	1,014.13	984.83
tblVehicleEF	SBUS	61.18	4.88
tblVehicleEF	SBUS	4.86	2.86
tblVehicleEF	SBUS	1.94	3.38
tblVehicleEF	SBUS	10.92	1.12
tblVehicleEF	SBUS	2.7540e-003	2.2930e-003

tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.8310e-003	0.02
tblVehicleEF	SBUS	1.0690e-003	6.4000e-005
tblVehicleEF	SBUS	2.6350e-003	2.1940e-003
tblVehicleEF	SBUS	2.5930e-003	2.6780e-003
tblVehicleEF	SBUS	9.3860e-003	0.02
tblVehicleEF	SBUS	9.8300e-004	5.9000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.04	0.31
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.41	0.03
tblVehicleEF	SBUS	0.01	3.2390e-003
tblVehicleEF	SBUS	9.7970e-003	9.4210e-003
tblVehicleEF	SBUS	7.4700e-004	4.8000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.51	0.45
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.09	0.08
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.45	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.0890e-003
tblVehicleEF	UBUS	3.18	14.11
tblVehicleEF	UBUS	7.55	0.14
tblVehicleEF	UBUS	1,951.30	1,668.67
tblVehicleEF	UBUS	123.95	1.40

tblVehicleEF	UBUS	5.24	0.71
tblVehicleEF	UBUS	13.19	0.01
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	5.1160e-003
tblVehicleEF	UBUS	1.3530e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.11	4.8930e-003
tblVehicleEF	UBUS	1.2440e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.63	8.8270e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.3770e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.51	1.90
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.69	9.6650e-003
tblVehicleTrips	ST_TR	6.39	4.02
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	1.87
tblVehicleTrips	SU_TR	5.86	3.68
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.80

tblVehicleTrips	WD_TR	6.65	4.18
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	8.37
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	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	69.00	0.00
tblWoodstoves	NumberNoncatalytic	69.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Year	tons/yr										MT/yr					
2023	0.2989	2.9686	2.6861	5.3600e-003	0.6251	0.1315	0.7565	0.2411	0.1217	0.3627	0.0000	469.6110	469.6110	0.1420	0.0000	473.1610
2024	0.1928	1.7611	2.1179	3.5300e-003	0.0000	0.0803	0.0803	0.0000	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
2025	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2026	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2027	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2028	36.6227	0.5518	0.8558	1.3700e-003	0.0000	0.0255	0.0255	0.0000	0.0238	0.0238	0.0000	119.4348	119.4348	0.0330	0.0000	120.2593
Maximum	**36.6227**	**2.9686**	**2.6861**	**5.3600e-003**	**0.6251**	**0.1315**	**0.7565**	**0.2411**	**0.1217**	**0.3627**	**0.0000**	**469.6110**	**469.6110**	**0.1420**	**0.0000**	**473.1610**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0651	0.2963	3.1131	5.3600e-003	0.2438	8.6300e-003	0.2524	0.0470	8.6300e-003	0.0556	0.0000	469.6104	469.6104	0.1420	0.0000	473.1604
2024	0.0429	0.2928	2.2873	3.5300e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
2025	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2026	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2027	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2028	36.5780	0.0839	0.9792	1.3700e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	119.4347	119.4347	0.0330	0.0000	120.2592
Maximum	**36.5780**	**0.2963**	**3.1131**	**5.3600e-003**	**0.2438**	**8.6300e-003**	**0.2524**	**0.0470**	**8.6300e-003**	**0.0556**	**0.0000**	**469.6104**	**469.6104**	**0.1420**	**0.0000**	**473.1604**

	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	2.22	84.77	-10.52	0.00	61.00	92.77	74.19	80.50	92.27	87.95	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	4-15-2023	7-14-2023	0.9929	0.1109
2	7-15-2023	10-14-2023	1.3343	0.1354
3	10-15-2023	1-14-2024	1.0077	0.1275
4	1-15-2024	4-14-2024	0.4847	0.0833
5	4-15-2024	7-14-2024	0.4847	0.0833
6	7-15-2024	10-14-2024	0.4901	0.0842
7	10-15-2024	1-14-2025	0.4847	0.0842
8	1-15-2025	4-14-2025	0.4448	0.0824
9	4-15-2025	7-14-2025	0.4497	0.0833
10	7-15-2025	10-14-2025	0.4546	0.0842
11	10-15-2025	1-14-2026	0.4546	0.0842
12	1-15-2026	4-14-2026	0.4448	0.0824
13	4-15-2026	7-14-2026	0.4497	0.0833
14	7-15-2026	10-14-2026	0.4546	0.0842
15	10-15-2026	1-14-2027	0.4546	0.0842
16	1-15-2027	4-14-2027	0.4448	0.0824
17	4-15-2027	7-14-2027	0.4497	0.0833
18	7-15-2027	10-14-2027	0.4546	0.0842
19	10-15-2027	1-14-2028	0.4546	0.0842
20	1-15-2028	4-14-2028	0.3520	0.0593
21	4-15-2028	7-14-2028	17.2275	17.0872
22	7-15-2028	9-30-2028	19.5258	19.5026
		Highest	19.5258	19.5026

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	26.8167	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Energy	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	8,822.9417	8,822.9417	0.9894	0.2324	8,916.9250
Mobile	7.8829	13.4561	66.5647	0.2128	13.6592	0.1580	13.8172	3.9086	0.1479	4.0565	0.0000	19,666.0386	19,666.0386	0.7973	0.0000	19,685.9699
Stationary	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Waste						0.0000	0.0000		0.0000	0.0000	743.4747	0.0000	743.4747	43.9381	0.0000	1,841.9271
Water						0.0000	0.0000		0.0000	0.0000	218.5718	452.7191	671.2909	0.8148	0.4883	837.1620
Total	**35.2792**	**17.2425**	**94.7181**	**0.2267**	**13.6592**	**0.4914**	**14.1506**	**3.9086**	**0.4813**	**4.3899**	**962.0465**	**29,162.4532**	**30,124.4997**	**46.6052**	**0.7206**	**31,504.3779**

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	26.8167	0.2956	25.6859	1.36E-03		0.1423	0.1423		0.1423	0.1423	0	42.0267	42.0267	0.0406	0	43.0403
Energy	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0	1,925.23	1,925.23	0.0369	0.0353	1,936.67
Mobile	7.8829	13.4561	66.5647	0.2128	13.6592	0.158	13.8172	3.9086	0.1479	4.0565	0	19,666.04	19,666.04	0.7973	0	19,685.97
Stationary	0.3851	1.7222	0.982	1.85E-03		0.0567	0.0567		0.0567	0.0567	0	178.7272	178.7272	0.0251	0	179.3536
Waste						0	0		0	0	743.4747	0	743.4747	43.9381	0	1,841.93
Water						0	0		0	0	218.5718	452.7191	671.2909	0.8148	0.4883	837.162
Total	**35.2792**	**17.2425**	**94.7181**	**0.2267**	**13.6592**	**0.4914**	**14.1506**	**3.9086**	**0.4813**	**4.3899**	**962.0465**	**22,264.75**	**23,226.79**	**45.6527**	**0.5236**	**24,524.13**

	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	23.65	22.90	2.04	27.35	22.16

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	4/15/2023	8/15/2023	5	87	
2	Site Preparation	Site Preparation	8/16/2023	9/16/2023	5	23	
3	Grading	Grading	9/17/2023	11/10/2023	5	40	
4	Trenching	Trenching	9/17/2023	11/10/2023	5	40	Overlapping with Grading
5	Building Construction	Building Construction	11/12/2023	2/11/2028	5	1110	
6	Paving	Paving	2/12/2028	5/26/2028	5	75	
7	Architectural Coating	Architectural Coating	5/27/2028	9/8/2028	5	75	

Acres of Grading (Site Preparation Phase): 23

Acres of Grading (Grading Phase): 180

Acres of Paving: 0

Residential Indoor: 6,986,250; Residential Outdoor: 2,328,750; Non-Residential Indoor: 3,340,200; Non-Residential Outdoor: 1,113,400;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	2	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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
Demolition	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0984	0.0000	0.0984	0.0149	0.0000	0.0149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1267	1.2023	1.2874	2.3200e-003		0.0566	0.0566		0.0525	0.0525	0.0000	203.3039	203.3039	0.0593	0.0000	204.7874
Total	**0.1267**	**1.2023**	**1.2874**	**2.3200e-003**	**0.0984**	**0.0566**	**0.1550**	**0.0149**	**0.0525**	**0.0674**	**0.0000**	**203.3039**	**203.3039**	**0.0593**	**0.0000**	**204.7874**

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					0.0384	0.0000	0.0384	2.9100e-003	0.0000	2.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0278	0.1206	1.4888	2.3200e-003		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	203.3036	203.3036	0.0593	0.0000	204.7871
Total	**0.0278**	**0.1206**	**1.4888**	**2.3200e-003**	**0.0384**	**3.7100e-003**	**0.0421**	**2.9100e-003**	**3.7100e-003**	**6.6200e-003**	**0.0000**	**203.3036**	**203.3036**	**0.0593**	**0.0000**	**204.7871**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Fugitive Dust					0.1547	0.0000	0.1547	0.0781	0.0000	0.0781	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2886	0.1360	3.8000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**0.0263**	**0.2886**	**0.1360**	**3.8000e-004**	**0.1547**	**0.0117**	**0.1664**	**0.0781**	**0.0108**	**0.0888**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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					0.0603	0.0000	0.0603	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7100e-003	0.0204	0.1835	3.8000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465

Total	**4.7100e-003**	**0.0204**	**0.1835**	**3.8000e-004**	**0.0603**	**6.3000e-004**	**0.0610**	**0.0152**	**6.3000e-004**	**0.0159**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3720	0.0000	0.3720	0.1481	0.0000	0.1481	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1048	1.1025	0.7589	1.8500e-003		0.0449	0.0449		0.0413	0.0413	0.0000	162.8769	162.8769	0.0527	0.0000	164.1939
Total	**0.1048**	**1.1025**	**0.7589**	**1.8500e-003**	**0.3720**	**0.0449**	**0.4168**	**0.1481**	**0.0413**	**0.1894**	**0.0000**	**162.8769**	**162.8769**	**0.0527**	**0.0000**	**164.1939**

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					0.1451	0.0000	0.1451	0.0289	0.0000	0.0289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.0986	0.8849	1.8500e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	162.8767	162.8767	0.0527	0.0000	164.1937
Total	**0.0228**	**0.0986**	**0.8849**	**1.8500e-003**	**0.1451**	**3.0300e-003**	**0.1481**	**0.0289**	**3.0300e-003**	**0.0319**	**0.0000**	**162.8767**	**162.8767**	**0.0527**	**0.0000**	**164.1937**

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 - 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	0.0136	0.1234	0.2196	3.3000e-004		6.0600e-003	6.0600e-003		5.5800e-003	5.5800e-003	0.0000	29.0910	29.0910	9.4100e-003	0.0000	29.3262
Total	**0.0136**	**0.1234**	**0.2196**	**3.3000e-004**		**6.0600e-003**	**6.0600e-003**		**5.5800e-003**	**5.5800e-003**	**0.0000**	**29.0910**	**29.0910**	**9.4100e-003**	**0.0000**	**29.3262**

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	4.0600e-003	0.0176	0.2504	3.3000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	29.0909	29.0909	9.4100e-003	0.0000	29.3261
Total	**4.0600e-003**	**0.0176**	**0.2504**	**3.3000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**29.0909**	**29.0909**	**9.4100e-003**	**0.0000**	**29.3261**

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	0.0275	0.2517	0.2843	4.7000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8071
Total	**0.0275**	**0.2517**	**0.2843**	**4.7000e-004**		**0.0123**	**0.0123**		**0.0115**	**0.0115**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8071**

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	5.7400e-003	0.0391	0.3056	4.7000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8070
Total	**5.7400e-003**	**0.0391**	**0.3056**	**4.7000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8070**

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 - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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 - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2027

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2028

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	0.0205	0.1871	0.2413	4.0000e-004		7.9100e-003	7.9100e-003		7.4400e-003	7.4400e-003	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9924
Total	**0.0205**	**0.1871**	**0.2413**	**4.0000e-004**		**7.9100e-003**	**7.9100e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9924**

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	4.9200e-003	0.0335	0.2619	4.0000e-004		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9923
Total	**4.9200e-003**	**0.0335**	**0.2619**	**4.0000e-004**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9923**

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 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3218	0.5467	8.5000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	75.0722	75.0722	0.0243	0.0000	75.6792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0343**	**0.3218**	**0.5467**	**8.5000e-004**		**0.0157**	**0.0157**		**0.0144**	**0.0144**	**0.0000**	**75.0722**	**75.0722**	**0.0243**	**0.0000**	**75.6792**

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	0.0105	0.0456	0.6486	8.5000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.0721	75.0721	0.0243	0.0000	75.6791
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0456**	**0.6486**	**8.5000e-004**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**	**0.0000**	**75.0721**	**75.0721**	**0.0243**	**0.0000**	**75.6791**

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 Architectural Coating - 2028

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	36.5614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4100e-003	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**36.5678**	**0.0430**	**0.0678**	**1.1000e-004**		**1.9300e-003**	**1.9300e-003**		**1.9300e-003**	**1.9300e-003**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	36.5614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878

Total	**36.5625**	**4.8300e-003**	**0.0687**	**1.1000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	7.8829	13.4561	66.5647	0.2128	13.6592	0.1580	13.8172	3.9086	0.1479	4.0565	0.0000	19,666.0386	19,666.0386	0.7973	0.0000	19,685.9699
Unmitigated	7.8829	13.4561	66.5647	0.2128	13.6592	0.1580	13.8172	3.9086	0.1479	4.0565	0.0000	19,666.0386	19,666.0386	0.7973	0.0000	19,685.9699

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,421.00	13,869.00	12696.00	32,555,565	32,555,565
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	18,414.00	4,114.00	1760.00	33,437,421	33,437,421
Strip Mall	1,187.78	1,126.67	547.52	1,674,913	1,674,913
Total	34,022.78	19,109.67	15,003.52	67,667,899	67,667,899

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
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
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	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
City Park	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Enclosed Parking with Elevator	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
General Office Building	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Strip Mall	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730

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	6,897.7081	6,897.7081	0.9525	0.1971	6,980.2507
NaturalGas Mitigated	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	1,925.2337	1,925.2337	0.0369	0.0353	1,936.6744
NaturalGas Unmitigated	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	1,925.2337	1,925.2337	0.0369	0.0353	1,936.6744

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	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
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
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	3.6014e+007	0.1942	1.7654	1.4829	0.0106		0.1342	0.1342		0.1342	0.1342	0.0000	1,921.8442	1,921.8442	0.0368	0.0352	1,933.2648
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.1945**	**1.7685**	**1.4856**	**0.0106**		**0.1344**	**0.1344**		**0.1344**	**0.1344**	**0.0000**	**1,925.2337**	**1,925.2337**	**0.0369**	**0.0353**	**1,936.6744**

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	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
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
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	3.6014e+007	0.1942	1.7654	1.4829	0.0106		0.1342	0.1342		0.1342	0.1342	0.0000	1,921.8442	1,921.8442	0.0368	0.0352	1,933.2648
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.1945**	**1.7685**	**1.4856**	**0.0106**		**0.1344**	**0.1344**		**0.1344**	**0.1344**	**0.0000**	**1,925.2337**	**1,925.2337**	**0.0369**	**0.0353**	**1,936.6744**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.42428e+007	1,356.6901	0.1874	0.0388	1,372.9251
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.86582e+007	1,777.2794	0.2454	0.0508	1,798.5475
General Office Building	3.9226e+007	3,736.4490	0.5160	0.1068	3,781.1618
Strip Mall	286492	27.2896	3.7700e-003	7.8000e-004	27.6162

Total		**6,897.7081**	**0.9525**	**0.1971**	**6,980.2507**

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
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
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

No Hearths Installed

	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	26.8167	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Unmitigated	26.8167	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403

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	3.6561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	22.3835					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	0.7770	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Total	**26.8167**	**0.2956**	**25.6859**	**1.3600e-003**		**0.1423**	**0.1423**		**0.1423**	**0.1423**	**0.0000**	**42.0267**	**42.0267**	**0.0406**	**0.0000**	**43.0403**

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	3.6561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	22.3835					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	0.7770	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Total	**26.8167**	**0.2956**	**25.6859**	**1.3600e-003**		**0.1423**	**0.1423**		**0.1423**	**0.1423**	**0.0000**	**42.0267**	**42.0267**	**0.0406**	**0.0000**	**43.0403**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	671.2909	0.8148	0.4883	837.1620
Unmitigated	671.2909	0.8148	0.4883	837.1620

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	391.014 / 239.654	419.7769	0.5150	0.3089	524.7012

Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**671.2909**	**0.8148**	**0.4883**	**837.1620**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	391.014 / 239.654	419.7769	0.5150	0.3089	524.7012
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**671.2909**	**0.8148**	**0.4883**	**837.1620**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	743.4747	43.9381	0.0000	1,841.9271
Unmitigated	743.4747	43.9381	0.0000	1,841.9271

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2046	415.3195	24.5447	0.0000	1,028.9365
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**743.4747**	**43.9381**	**0.0000**	**1,841.9271**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2046	415.3195	24.5447	0.0000	1,028.9365
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**743.4747**	**43.9381**	**0.0000**	**1,841.9271**

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
Emergency Generator	7	0	50	1341	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536

Total	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536

11.0 Vegetation

Flea Market - AQ/GHG (Option 1) 2030

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	2,200.00	1000sqft	0.00	2,200,000.00	0
Enclosed Parking with Elevator	7,960.00	Space	0.00	3,184,000.00	0
City Park	17.00	Acre	0.00	740,520.00	0
Apartments Mid Rise	3,450.00	Dwelling Unit	61.50	3,450,000.00	9867
Strip Mall	26.80	1000sqft	0.00	26,800.00	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 - PG&E 2017 rate for CO2 Intensity Factor

Land Use - Option 1: Residential = 3,450 DU, Commercial = 2.2 million sqft, City Park = 17 acres, Parking = 7,960 spaces. Retail = 26,800 sqft. 61.5-acres

Construction Phase - Default schedule + Specified Demo, Site Prep, Grading/Excavation from Project Applicant, Added a trenching phase

Off-road Equipment - Default equipment and usage

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Added Trenching Phase with default equipment assumptions

Trips and VMT - No Trips, using EMFAC2017

Demolition - Demolish 200,000-sqft

Grading - Based on the hauling construction information from project applicant (1.17.2019) and correspondance from 2.19.2020

Vehicle Trips - Apartment and Office project-specific trip rates. Assuming no park trips and default retail trips

Vehicle Emission Factors - 2030 Vehicle Emissions Santa Clara County

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No hearths or gas fireplaces

Energy Use - San Jose Reach Code, no natural gas in residential developments

Water And Wastewater - WTP 100%

Construction Off-road Equipment Mitigation - Advanced BMPs, Tier 4 mitigation

Area Mitigation -

Energy Mitigation - Reach Code SJ for carbon-free electricity with SJCE

Stationary Sources - Emergency Generators and Fire Pumps - Seven 1,000 kW generators assumed, one per office structure

Table Name	Column Name	Default Value	New Value
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	517.50	0.00
tblFireplaces	NumberNoFireplace	138.00	0.00
tblFireplaces	NumberWood	586.50	0.00

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tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
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tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
tblFleetMix	LDA	0.62	0.60
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tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
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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
tblGrading	MaterialExported	0.00	560,000.00
tblGrading	MaterialImported	0.00	70,000.00
tblGrading	MaterialImported	0.00	70,000.00
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tblLandUse	LotAcreage	90.79	61.50
tblLandUse	LotAcreage	0.62	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	7.00
tblTripsAndVMT	HaulingTripNumber	910.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,750.00	0.00
tblTripsAndVMT	HaulingTripNumber	78,750.00	0.00
tblTripsAndVMT	VendorTripNumber	1,377.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	4,845.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	969.00	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	199.86
tblVehicleEF	LDA	42.51	42.17
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	241.46
tblVehicleEF	LDT1	54.62	51.55
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	249.80
tblVehicleEF	LDT2	61.38	53.79
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	301.13
tblVehicleEF	MDV	82.28	63.46
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	4.02
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	1.87
tblVehicleTrips	SU_TR	5.86	3.68
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.80
tblVehicleTrips	WD_TR	6.65	4.18

tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	8.37
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	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	69.00	0.00
tblWoodstoves	NumberNoncatalytic	69.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	26.8124	0.2954	25.6422	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0267	42.0267	0.0403	0.0000	43.0351
Energy	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	8,822.9417	8,822.9417	0.9894	0.2324	8,916.93
Mobile	7.5460	13.1508	64.7475	0.2094	25.1522	0.1519	25.3041	6.7297	0.1423	6.8719	0.0000	19,256.1078	19,256.1078	0.7648	0.0000	19,275.23
Stationary	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Waste						0.0000	0.0000		0.0000	0.0000	743.4747	0.0000	743.4747	43.9381	0.0000	1,841.93
Water						0.0000	0.0000		0.0000	0.0000	218.5718	452.7191	671.2909	0.8148	0.4883	837.162
Total	**34.9381**	**16.9369**	**92.8572**	**0.2232**	**25.1522**	**0.4853**	**25.6376**	**6.7297**	**0.4757**	**7.2054**	**962.0465**	**28,752.5225**	**29,714.5690**	**46.5725**	**0.7206**	**31,093.6293**

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	26.8124	0.2954	25.6422	1.36E-03		0.1424	0.1424		0.1424	0.1424	0	42.0267	42.0267	0.0403	0	43.0351
Energy	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0	1,925.23	1,925.23	0.0369	0.0353	1,936.67
Mobile	7.546	13.1508	64.7475	0.2094	25.1522	0.1519	25.3041	6.7297	0.1423	6.8719	0	19,256.11	19,256.11	0.7648	0	19,275.23
Stationary	0.3851	1.7222	0.982	1.85E-03		0.0567	0.0567		0.0567	0.0567	0	178.7272	178.7272	0.0251	0	179.3536
Waste						0	0		0	0	743.4747	0	743.4747	43.9381	0	1,841.93
Water						0	0		0	0	218.5718	452.7191	671.2909	0.8148	0.4883	837.162
Total	**34.9381**	**16.9369**	**92.8572**	**0.2232**	**25.1522**	**0.4853**	**25.6376**	**6.7297**	**0.4757**	**7.2054**	**962.0465**	**21,854.81**	**22,816.86**	**45.62**	**0.5236**	**24,113.38**

	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**	**23.99**	**23.21**	**2.05**	**27.35**	**22.45**

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	7.5460	13.1508	64.7475	0.2094	25.1522	0.1519	25.3041	6.7297	0.1423	6.8719	0.0000	19,256.1078	19,256.1078	0.7648	0.0000	19,275.2264
Unmitigated	7.5460	13.1508	64.7475	0.2094	25.1522	0.1519	25.3041	6.7297	0.1423	6.8719	0.0000	19,256.1078	19,256.1078	0.7648	0.0000	19,275.2264

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,421.00	13,869.00	12696.00	32,555,565	32,555,565
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	18,414.00	4,114.00	1760.00	33,437,421	33,437,421
Strip Mall	1,187.78	1,126.67	547.52	1,674,913	1,674,913
Total	34,022.78	19,109.67	15,003.52	67,667,899	67,667,899

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-	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

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
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
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
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	6,897.7081	6,897.7081	0.9525	0.1971	6,980.2507
NaturalGas Mitigated	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	1,925.2337	1,925.2337	0.0369	0.0353	1,936.6744
NaturalGas Unmitigated	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	1,925.2337	1,925.2337	0.0369	0.0353	1,936.6744

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	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
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
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	3.6014e+007	0.1942	1.7654	1.4829	0.0106		0.1342	0.1342		0.1342	0.1342	0.0000	1,921.8442	1,921.8442	0.0368	0.0352	1,933.2648
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.1945**	**1.7685**	**1.4856**	**0.0106**		**0.1344**	**0.1344**		**0.1344**	**0.1344**	**0.0000**	**1,925.2337**	**1,925.2337**	**0.0369**	**0.0353**	**1,936.6744**

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	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
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
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	3.6014e+007	0.1942	1.7654	1.4829	0.0106		0.1342	0.1342		0.1342	0.1342	0.0000	1,921.8442	1,921.8442	0.0368	0.0352	1,933.2648
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.1945**	**1.7685**	**1.4856**	**0.0106**		**0.1344**	**0.1344**		**0.1344**	**0.1344**	**0.0000**	**1,925.2337**	**1,925.2337**	**0.0369**	**0.0353**	**1,936.6744**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.42428e+007	1,356.6901	0.1874	0.0388	1,372.9251
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.86582e+007	1,777.2794	0.2454	0.0508	1,798.5475
General Office Building	3.9226e+007	3,736.4490	0.5160	0.1068	3,781.1618
Strip Mall	286492	27.2896	3.7700e-003	7.8000e-004	27.6162
Total		**6,897.7081**	**0.9525**	**0.1971**	**6,980.2507**

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
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
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

No Hearths Installed

	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	26.8124	0.2954	25.6422	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0267	42.0267	0.0403	0.0000	43.0351
Unmitigated	26.8124	0.2954	25.6422	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0267	42.0267	0.0403	0.0000	43.0351

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	3.6561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	22.3835					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	0.7727	0.2954	25.6422	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0267	42.0267	0.0403	0.0000	43.0351

Total	**26.8124**	**0.2954**	**25.6422**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0267**	**42.0267**	**0.0403**	**0.0000**	**43.0351**

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	3.6561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	22.3835					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	0.7727	0.2954	25.6422	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0267	42.0267	0.0403	0.0000	43.0351
Total	**26.8124**	**0.2954**	**25.6422**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0267**	**42.0267**	**0.0403**	**0.0000**	**43.0351**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	671.2909	0.8148	0.4883	837.1620
Unmitigated	671.2909	0.8148	0.4883	837.1620

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	391.014 / 239.654	419.7769	0.5150	0.3089	524.7012
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**671.2909**	**0.8148**	**0.4883**	**837.1620**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	391.014 / 239.654	419.7769	0.5150	0.3089	524.7012
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639

Total		**671.2909**	**0.8148**	**0.4883**	**837.1620**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	743.4747	43.9381	0.0000	1,841.9271
Unmitigated	743.4747	43.9381	0.0000	1,841.9271

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2046	415.3195	24.5447	0.0000	1,028.9365

Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**743.4747**	**43.9381**	**0.0000**	**1,841.9271**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2046	415.3195	24.5447	0.0000	1,028.9365
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**743.4747**	**43.9381**	**0.0000**	**1,841.9271**

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
Emergency Generator	7	0	50	1341	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Total	**0.3851**	**1.7222**	**0.9820**	**1.8500e-003**		**0.0567**	**0.0567**		**0.0567**	**0.0567**	**0.0000**	**178.7272**	**178.7272**	**0.0251**	**0.0000**	**179.3536**

11.0 Vegetation

Flea Market - AQ/GHG (Option 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	3,400.00	1000sqft	0.00	3,400,000.00	0
Enclosed Parking with Elevator	7,960.00	Space	0.00	3,184,000.00	0
City Park	17.00	Acre	0.00	740,520.00	0
Apartments Mid Rise	3,450.00	Dwelling Unit	61.50	3,450,000.00	9867
Strip Mall	26.80	1000sqft	0.00	26,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
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 - PG&E 2017 rate for CO2 Intensity Factor

Land Use - Option 2: Residential = 3,450 DU, Commercial = 3.4 million sqft, City Park = 17 acres, Parking = 7,960 spaces. Retail = 26,800 sqft. 61.5-acres

Construction Phase - Default schedule + Specified Demo, Site Prep, Grading/Excavation from Project Applicant, Added a trenching phase

Off-road Equipment - Default equipment and usage

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Added Trenching Phase with default equipment assumptions

Trips and VMT - No Trips, EMFAC2017

Demolition - Demolish 200,000-sqft

Grading - Based on the hauling construction information from project applicant (1.17.2019) and correspondance from 2.19.2020

Architectural Coating -

Vehicle Trips - Project specific trip gen rates for apartments and office. Assuming no trips to the city park. Default strip mall trips

Vehicle Emission Factors - 2029 Vehicle Emissions Santa Clara County

Woodstoves - No hearths or gas fireplaces

Area Coating -

Energy Use - San Jose Reach Code, no natural gas in residential development

Water And Wastewater - WTP 100%

Solid Waste -

Construction Off-road Equipment Mitigation - Advanced BMPs, Tier 4 final mitigation

Area Mitigation -

Energy Mitigation - Reach Code SJ for carbon-free electricity

Stationary Sources - Emergency Generators and Fire Pumps - Seven 1,000 kW generators assumed, one per office structure

Road Dust - Entrained road dust adjustment

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	12
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	110.00	40.00
tblConstructionPhase	NumDays	40.00	23.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	517.50	0.00

tblFireplaces	NumberNoFireplace	138.00	0.00
tblFireplaces	NumberWood	586.50	0.00
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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	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	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
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003

tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
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tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
tblFleetMix	MDV	0.10	0.11
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tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
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tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
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tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004

tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
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tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblGrading	MaterialExported	0.00	560,000.00
tblGrading	MaterialImported	0.00	70,000.00
tblGrading	MaterialImported	0.00	70,000.00
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tblLandUse	LotAcreage	0.62	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblRoadDust	RoadSiltLoading	0.1	0.0431
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	7.00
tblTripsAndVMT	HaulingTripNumber	910.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,750.00	0.00
tblTripsAndVMT	HaulingTripNumber	78,750.00	0.00

tblTripsAndVMT	VendorTripNumber	1,574.00	0.00
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tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,046.00	0.00
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tblVehicleEF	HHD	1.2000e-004	1.0000e-006

tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	4.5950e-003	6.0000e-005
tblVehicleEF	HHD	0.38	0.42
tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1400e-004	2.9600e-004
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tblVehicleEF	HHD	0.04	8.8330e-003
tblVehicleEF	HHD	0.01	0.01
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tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
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tblVehicleEF	LDA	0.03	0.13
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tblVehicleEF	LDT1	0.06	0.16
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tblVehicleEF	LDT1	0.13	0.10
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tblVehicleEF	LDT1	0.10	0.39

tblVehicleEF	LDT1	0.07	0.17
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tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.08	0.18
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tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.35
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tblVehicleEF	LHD1	6.4500e-004	1.9900e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
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tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD1	8.9000e-005	8.1000e-005
tblVehicleEF	LHD1	6.3210e-003	6.9190e-003
tblVehicleEF	LHD1	3.0900e-004	1.0200e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD2	2.6180e-003	2.5740e-003
tblVehicleEF	LHD2	3.5130e-003	5.1650e-003
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tblVehicleEF	LHD2	0.90	0.50
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tblVehicleEF	LHD2	678.66	689.54
tblVehicleEF	LHD2	22.03	6.59
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tblVehicleEF	LHD2	0.26	0.43
tblVehicleEF	LHD2	0.28	0.13
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tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
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tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2500e-004
tblVehicleEF	LHD2	6.5940e-003	6.6520e-003
tblVehicleEF	LHD2	2.3600e-004	6.5000e-005
tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.62	17.72
tblVehicleEF	MCY	10.32	9.18
tblVehicleEF	MCY	171.24	209.80
tblVehicleEF	MCY	43.13	59.44
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1460e-003	2.1240e-003
tblVehicleEF	MCY	3.3780e-003	2.8870e-003
tblVehicleEF	MCY	2.0020e-003	1.9820e-003
tblVehicleEF	MCY	3.1630e-003	2.7020e-003

tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.13	2.14
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.12	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.6200e-004	5.8800e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.67	2.67
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.31	2.05
tblVehicleEF	MDV	5.5000e-003	1.9360e-003
tblVehicleEF	MDV	7.9330e-003	0.05
tblVehicleEF	MDV	0.71	0.57
tblVehicleEF	MDV	1.62	2.40
tblVehicleEF	MDV	367.51	309.06
tblVehicleEF	MDV	84.52	65.31
tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	1.4670e-003	1.1000e-003
tblVehicleEF	MDV	2.1720e-003	1.4190e-003
tblVehicleEF	MDV	1.3510e-003	1.0140e-003
tblVehicleEF	MDV	1.9970e-003	1.3050e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	7.6040e-003

tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.6760e-003	3.0540e-003
tblVehicleEF	MDV	8.7300e-004	6.4600e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	0.01	5.5400e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.64	0.38
tblVehicleEF	MH	3.95	1.69
tblVehicleEF	MH	1,187.29	1,370.22
tblVehicleEF	MH	57.03	15.90
tblVehicleEF	MH	0.89	1.10
tblVehicleEF	MH	0.65	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	9.1300e-004	2.1800e-004
tblVehicleEF	MH	3.2210e-003	3.2950e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.4000e-004	2.0000e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.23	0.08

tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3900e-004	1.5700e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.26	0.08
tblVehicleEF	MHD	0.02	3.7880e-003
tblVehicleEF	MHD	2.8710e-003	1.0920e-003
tblVehicleEF	MHD	0.03	8.4000e-003
tblVehicleEF	MHD	0.37	0.40
tblVehicleEF	MHD	0.26	0.16
tblVehicleEF	MHD	3.91	0.89
tblVehicleEF	MHD	132.56	66.14
tblVehicleEF	MHD	1,170.12	1,006.37
tblVehicleEF	MHD	59.44	8.59
tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.05	1.43
tblVehicleEF	MHD	10.04	1.69
tblVehicleEF	MHD	5.9000e-005	1.8700e-004
tblVehicleEF	MHD	3.0300e-003	7.0280e-003
tblVehicleEF	MHD	8.2100e-004	1.1100e-004
tblVehicleEF	MHD	5.6000e-005	1.7900e-004
tblVehicleEF	MHD	2.8920e-003	6.7170e-003
tblVehicleEF	MHD	7.5500e-004	1.0200e-004
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8600e-004	1.7000e-004

tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.24	0.04
tblVehicleEF	MHD	1.2770e-003	6.2800e-004
tblVehicleEF	MHD	0.01	9.6020e-003
tblVehicleEF	MHD	6.6300e-004	8.5000e-005
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	OBUS	0.01	7.0930e-003
tblVehicleEF	OBUS	4.3010e-003	2.3640e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.32	0.28
tblVehicleEF	OBUS	4.16	1.61
tblVehicleEF	OBUS	111.44	97.29
tblVehicleEF	OBUS	1,275.89	1,225.69
tblVehicleEF	OBUS	65.07	13.68
tblVehicleEF	OBUS	0.25	0.43
tblVehicleEF	OBUS	0.89	1.44
tblVehicleEF	OBUS	2.75	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4100e-004
tblVehicleEF	OBUS	2.8900e-003	7.7790e-003
tblVehicleEF	OBUS	9.2700e-004	1.5500e-004
tblVehicleEF	OBUS	2.1000e-005	1.3500e-004
tblVehicleEF	OBUS	2.7430e-003	7.4280e-003

tblVehicleEF	OBUS	8.5200e-004	1.4200e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0750e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2400e-004	1.3500e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.29	0.09
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	8.9530e-003	4.6480e-003
tblVehicleEF	SBUS	0.06	6.0510e-003
tblVehicleEF	SBUS	8.77	2.81
tblVehicleEF	SBUS	0.56	0.39
tblVehicleEF	SBUS	7.85	0.83
tblVehicleEF	SBUS	1,034.78	339.74
tblVehicleEF	SBUS	1,014.13	984.83
tblVehicleEF	SBUS	61.18	4.88
tblVehicleEF	SBUS	4.86	2.86
tblVehicleEF	SBUS	1.94	3.38
tblVehicleEF	SBUS	10.92	1.12

tblVehicleEF	SBUS	2.7540e-003	2.2930e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.8310e-003	0.02
tblVehicleEF	SBUS	1.0690e-003	6.4000e-005
tblVehicleEF	SBUS	2.6350e-003	2.1940e-003
tblVehicleEF	SBUS	2.5930e-003	2.6780e-003
tblVehicleEF	SBUS	9.3860e-003	0.02
tblVehicleEF	SBUS	9.8300e-004	5.9000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.04	0.31
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.41	0.03
tblVehicleEF	SBUS	0.01	3.2390e-003
tblVehicleEF	SBUS	9.7970e-003	9.4210e-003
tblVehicleEF	SBUS	7.4700e-004	4.8000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.51	0.45
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.09	0.08
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.45	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.0890e-003
tblVehicleEF	UBUS	3.18	14.11
tblVehicleEF	UBUS	7.55	0.14
tblVehicleEF	UBUS	1,951.30	1,668.67

tblVehicleEF	UBUS	123.95	1.40
tblVehicleEF	UBUS	5.24	0.71
tblVehicleEF	UBUS	13.19	0.01
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	5.1160e-003
tblVehicleEF	UBUS	1.3530e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.11	4.8930e-003
tblVehicleEF	UBUS	1.2440e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.63	8.8270e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.3770e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.51	1.90
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.69	9.6650e-003
tblVehicleTrips	ST_TR	6.39	4.02
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	1.77
tblVehicleTrips	SU_TR	5.86	3.68
tblVehicleTrips	SU_TR	16.74	0.00

tblVehicleTrips	SU_TR	1.05	0.75
tblVehicleTrips	WD_TR	6.65	4.18
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	7.93
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	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	69.00	0.00
tblWoodstoves	NumberNoncatalytic	69.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2989	2.9686	2.6861	5.3600e-003	0.6251	0.1315	0.7565	0.2411	0.1217	0.3627	0.0000	469.6110	469.6110	0.1420	0.0000	473.1610
2024	0.1928	1.7611	2.1179	3.5300e-003	0.0000	0.0803	0.0803	0.0000	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
2025	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2026	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2027	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2028	42.8799	0.5518	0.8558	1.3700e-003	0.0000	0.0255	0.0255	0.0000	0.0238	0.0238	0.0000	119.4348	119.4348	0.0330	0.0000	120.2593
Maximum	**42.8799**	**2.9686**	**2.6861**	**5.3600e-003**	**0.6251**	**0.1315**	**0.7565**	**0.2411**	**0.1217**	**0.3627**	**0.0000**	**469.6110**	**469.6110**	**0.1420**	**0.0000**	**473.1610**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0651	0.2963	3.1131	5.3600e-003	0.2438	8.6300e-003	0.2524	0.0470	8.6300e-003	0.0556	0.0000	469.6104	469.6104	0.1420	0.0000	473.1604
2024	0.0429	0.2928	2.2873	3.5300e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
2025	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2026	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2027	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2028	42.8352	0.0839	0.9792	1.3700e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	119.4347	119.4347	0.0330	0.0000	120.2592
Maximum	**42.8352**	**0.2963**	**3.1131**	**5.3600e-003**	**0.2438**	**8.6300e-003**	**0.2524**	**0.0470**	**8.6300e-003**	**0.0556**	**0.0000**	**469.6104**	**469.6104**	**0.1420**	**0.0000**	**473.1604**

	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	1.90	84.77	-10.52	0.00	61.00	92.77	74.19	80.50	92.27	87.95	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	4-15-2023	7-14-2023	0.9929	0.1109
2	7-15-2023	10-14-2023	1.3343	0.1354
3	10-15-2023	1-14-2024	1.0077	0.1275
4	1-15-2024	4-14-2024	0.4847	0.0833
5	4-15-2024	7-14-2024	0.4847	0.0833
6	7-15-2024	10-14-2024	0.4901	0.0842
7	10-15-2024	1-14-2025	0.4847	0.0842
8	1-15-2025	4-14-2025	0.4448	0.0824
9	4-15-2025	7-14-2025	0.4497	0.0833
10	7-15-2025	10-14-2025	0.4546	0.0842
11	10-15-2025	1-14-2026	0.4546	0.0842
12	1-15-2026	4-14-2026	0.4448	0.0824
13	4-15-2026	7-14-2026	0.4497	0.0833
14	7-15-2026	10-14-2026	0.4546	0.0842
15	10-15-2026	1-14-2027	0.4546	0.0842
16	1-15-2027	4-14-2027	0.4448	0.0824
17	4-15-2027	7-14-2027	0.4497	0.0833
18	7-15-2027	10-14-2027	0.4546	0.0842
19	10-15-2027	1-14-2028	0.4546	0.0842
20	1-15-2028	4-14-2028	0.3520	0.0593
21	4-15-2028	7-14-2028	20.1475	20.0073
22	7-15-2028	9-30-2028	22.8630	22.8398
		Highest	22.8630	22.8398

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	32.1300	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Energy	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	11,909.2835	11,909.2835	1.2910	0.3098	12,033.8850
Mobile	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0.0000	24,168.9251	24,168.9251	0.9775	0.0000	24,193.3618
Stationary	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Waste						0.0000	0.0000		0.0000	0.0000	970.0126	0.0000	970.0126	57.3261	0.0000	2,403.1652
Water						0.0000	0.0000		0.0000	0.0000	294.0308	606.2294	900.2601	1.0957	0.6567	1,123.3627
Total	**42.4612**	**21.2620**	**110.6339**	**0.2812**	**16.7902**	**0.6007**	**17.3909**	**4.8045**	**0.5883**	**5.3928**	**1,264.0434**	**36,905.2132**	**38,169.2566**	**60.7560**	**0.9666**	**39,976.1914**

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	32.13	0.2957	25.6969	1.36E-03		0.1424	0.1424		0.1424	0.1424	0	42.0481	42.0481	0.0406	0	43.0631
Energy	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0	2,973.51	2,973.51	0.057	0.0545	2,991.18
Mobile	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0	24,168.93	24,168.93	0.9775	0	24,193.36
Stationary	0.3851	1.7222	0.982	1.85E-03		0.0567	0.0567		0.0567	0.0567	0	178.7272	178.7272	0.0251	0	179.3536
Waste						0	0		0	0	970.0126	0	970.0126	57.3261	0	2,403.17
Water						0	0		0	0	294.0308	606.2294	900.2601	1.0957	0.6567	1,123.36

Total	42.4612	21.262	110.6339	0.2812	16.7902	0.6007	17.3909	4.8045	0.5883	5.3928	1,264.04	27,969.44	29,233.49	59.522	0.7113	30,933.49

	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	24.21	23.41	2.03	26.41	22.62

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	4/15/2023	8/15/2023	5	87	
2	Site Preparation	Site Preparation	8/16/2023	9/16/2023	5	23	
3	Grading	Grading	9/17/2023	11/10/2023	5	40	
4	Trenching	Trenching	9/17/2023	11/10/2023	5	40	Overlapping with Grading
5	Building Construction	Building Construction	11/12/2023	2/11/2028	5	1110	
6	Paving	Paving	2/12/2028	5/26/2028	5	75	
7	Architectural Coating	Architectural Coating	5/27/2028	9/8/2028	5	75	

Acres of Grading (Site Preparation Phase): 23

Acres of Grading (Grading Phase): 180

Acres of Paving: 0

Residential Indoor: 6,986,250; Residential Outdoor: 2,328,750; Non-Residential Indoor: 5,140,200; Non-Residential Outdoor: 1,713,400;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	2	8.00	187	0.41

Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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
Demolition	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0984	0.0000	0.0984	0.0149	0.0000	0.0149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1267	1.2023	1.2874	2.3200e-003		0.0566	0.0566		0.0525	0.0525	0.0000	203.3039	203.3039	0.0593	0.0000	204.7874
Total	**0.1267**	**1.2023**	**1.2874**	**2.3200e-003**	**0.0984**	**0.0566**	**0.1550**	**0.0149**	**0.0525**	**0.0674**	**0.0000**	**203.3039**	**203.3039**	**0.0593**	**0.0000**	**204.7874**

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					0.0384	0.0000	0.0384	2.9100e-003	0.0000	2.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0278	0.1206	1.4888	2.3200e-003		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	203.3036	203.3036	0.0593	0.0000	204.7871
Total	**0.0278**	**0.1206**	**1.4888**	**2.3200e-003**	**0.0384**	**3.7100e-003**	**0.0421**	**2.9100e-003**	**3.7100e-003**	**6.6200e-003**	**0.0000**	**203.3036**	**203.3036**	**0.0593**	**0.0000**	**204.7871**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1547	0.0000	0.1547	0.0781	0.0000	0.0781	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2886	0.1360	3.8000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**0.0263**	**0.2886**	**0.1360**	**3.8000e-004**	**0.1547**	**0.0117**	**0.1664**	**0.0781**	**0.0108**	**0.0888**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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					0.0603	0.0000	0.0603	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7100e-003	0.0204	0.1835	3.8000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**4.7100e-003**	**0.0204**	**0.1835**	**3.8000e-004**	**0.0603**	**6.3000e-004**	**0.0610**	**0.0152**	**6.3000e-004**	**0.0159**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3720	0.0000	0.3720	0.1481	0.0000	0.1481	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1048	1.1025	0.7589	1.8500e-003		0.0449	0.0449		0.0413	0.0413	0.0000	162.8769	162.8769	0.0527	0.0000	164.1939
Total	**0.1048**	**1.1025**	**0.7589**	**1.8500e-003**	**0.3720**	**0.0449**	**0.4168**	**0.1481**	**0.0413**	**0.1894**	**0.0000**	**162.8769**	**162.8769**	**0.0527**	**0.0000**	**164.1939**

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					0.1451	0.0000	0.1451	0.0289	0.0000	0.0289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.0986	0.8849	1.8500e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	162.8767	162.8767	0.0527	0.0000	164.1937
Total	**0.0228**	**0.0986**	**0.8849**	**1.8500e-003**	**0.1451**	**3.0300e-003**	**0.1481**	**0.0289**	**3.0300e-003**	**0.0319**	**0.0000**	**162.8767**	**162.8767**	**0.0527**	**0.0000**	**164.1937**

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 - 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	0.0136	0.1234	0.2196	3.3000e-004		6.0600e-003	6.0600e-003		5.5800e-003	5.5800e-003	0.0000	29.0910	29.0910	9.4100e-003	0.0000	29.3262
Total	**0.0136**	**0.1234**	**0.2196**	**3.3000e-004**		**6.0600e-003**	**6.0600e-003**		**5.5800e-003**	**5.5800e-003**	**0.0000**	**29.0910**	**29.0910**	**9.4100e-003**	**0.0000**	**29.3262**

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	4.0600e-003	0.0176	0.2504	3.3000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	29.0909	29.0909	9.4100e-003	0.0000	29.3261
Total	**4.0600e-003**	**0.0176**	**0.2504**	**3.3000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**29.0909**	**29.0909**	**9.4100e-003**	**0.0000**	**29.3261**

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	0.0275	0.2517	0.2843	4.7000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8071
Total	**0.0275**	**0.2517**	**0.2843**	**4.7000e-004**		**0.0123**	**0.0123**		**0.0115**	**0.0115**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8071**

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	5.7400e-003	0.0391	0.3056	4.7000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8070
Total	**5.7400e-003**	**0.0391**	**0.3056**	**4.7000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8070**

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 - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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 - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2027

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2028

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	0.0205	0.1871	0.2413	4.0000e-004		7.9100e-003	7.9100e-003		7.4400e-003	7.4400e-003	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9924
Total	**0.0205**	**0.1871**	**0.2413**	**4.0000e-004**		**7.9100e-003**	**7.9100e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9924**

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	4.9200e-003	0.0335	0.2619	4.0000e-004		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9923
Total	**4.9200e-003**	**0.0335**	**0.2619**	**4.0000e-004**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9923**

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 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3218	0.5467	8.5000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	75.0722	75.0722	0.0243	0.0000	75.6792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0343**	**0.3218**	**0.5467**	**8.5000e-004**		**0.0157**	**0.0157**		**0.0144**	**0.0144**	**0.0000**	**75.0722**	**75.0722**	**0.0243**	**0.0000**	**75.6792**

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	0.0105	0.0456	0.6486	8.5000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.0721	75.0721	0.0243	0.0000	75.6791
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0456**	**0.6486**	**8.5000e-004**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**	**0.0000**	**75.0721**	**75.0721**	**0.0243**	**0.0000**	**75.6791**

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 Architectural Coating - 2028

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	42.8187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4100e-003	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**42.8251**	**0.0430**	**0.0678**	**1.1000e-004**		**1.9300e-003**	**1.9300e-003**		**1.9300e-003**	**1.9300e-003**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	42.8187					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**42.8198**	**4.8300e-003**	**0.0687**	**1.1000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0.0000	24,168.9251	24,168.9251	0.9775	0.0000	24,193.3618
Unmitigated	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0.0000	24,168.9251	24,168.9251	0.9775	0.0000	24,193.3618

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,421.00	13,869.00	12696.00	32,555,565	32,555,565
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	26,962.00	6,018.00	2550.00	48,948,283	48,948,283
Strip Mall	1,187.78	1,126.67	547.52	1,674,913	1,674,913
Total	42,570.78	21,013.67	15,793.52	83,178,760	83,178,760

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
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
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	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
City Park	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Enclosed Parking with Elevator	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
General Office Building	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Strip Mall	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730

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	8,935.7712	8,935.7712	1.2340	0.2553	9,042.7026
NaturalGas Mitigated	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	2,973.5123	2,973.5123	0.0570	0.0545	2,991.1824
NaturalGas Unmitigated	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	2,973.5123	2,973.5123	0.0570	0.0545	2,991.1824

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	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
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
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	5.5658e+007	0.3001	2.7283	2.2918	0.0164		0.2074	0.2074		0.2074	0.2074	0.0000	2,970.1228	2,970.1228	0.0569	0.0545	2,987.7728

Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.3005**	**2.7314**	**2.2944**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**	**0.0000**	**2,973.5123**	**2,973.5123**	**0.0570**	**0.0545**	**2,991.1824**

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	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
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
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	5.5658e+007	0.3001	2.7283	2.2918	0.0164		0.2074	0.2074		0.2074	0.2074	0.0000	2,970.1228	2,970.1228	0.0569	0.0545	2,987.7728
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.3005**	**2.7314**	**2.2944**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**	**0.0000**	**2,973.5123**	**2,973.5123**	**0.0570**	**0.0545**	**2,991.1824**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.42428e+007	1,356.6901	0.1874	0.0388	1,372.9251
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.86582e+007	1,777.2794	0.2454	0.0508	1,798.5475

General Office Building	6.0622e+007	5,774.5121	0.7974	0.1650	5,843.6138
Strip Mall	286492	27.2896	3.7700e-003	7.8000e-004	27.6162
Total		**8,935.7712**	**1.2340**	**0.2553**	**9,042.7026**

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
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
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

No Hearths Installed

	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	32.1300	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Unmitigated	32.1300	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631

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	4.2819					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.0701					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	0.7780	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Total	**32.1300**	**0.2957**	**25.6969**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0481**	**42.0481**	**0.0406**	**0.0000**	**43.0631**

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	4.2819					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.0701					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	0.7780	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Total	**32.1300**	**0.2957**	**25.6969**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0481**	**42.0481**	**0.0406**	**0.0000**	**43.0631**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	900.2601	1.0957	0.6567	1,123.3627
Unmitigated	900.2601	1.0957	0.6567	1,123.3627

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

General Office Building	604.295 / 370.374	648.7462	0.7959	0.4774	810.9019
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**900.2601**	**1.0957**	**0.6567**	**1,123.3627**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	604.295 / 370.374	648.7462	0.7959	0.4774	810.9019
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**900.2601**	**1.0957**	**0.6567**	**1,123.3627**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	970.0126	57.3261	0.0000	2,403.1652
Unmitigated	970.0126	57.3261	0.0000	2,403.1652

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3162	641.8574	37.9327	0.0000	1,590.1746
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**970.0126**	**57.3261**	**0.0000**	**2,403.1652**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047

City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3162	641.8574	37.9327	0.0000	1,590.1746
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**970.0126**	**57.3261**	**0.0000**	**2,403.1652**

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
Emergency Generator	7	0	50	1341	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					

Emergency Generator - Diesel (750 - 9999 HP)	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Total	**0.3851**	**1.7222**	**0.9820**	**1.8500e-003**		**0.0567**	**0.0567**		**0.0567**	**0.0567**	**0.0000**	**178.7272**	**178.7272**	**0.0251**	**0.0000**	**179.3536**

11.0 Vegetation

Flea Market - AQ/GHG (Option 2) 2030

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	3,400.00	1000sqft	0.00	3,400,000.00	0
Enclosed Parking with Elevator	7,960.00	Space	0.00	3,184,000.00	0
City Park	17.00	Acre	0.00	740,520.00	0
Apartments Mid Rise	3,450.00	Dwelling Unit	61.50	3,450,000.00	9867
Strip Mall	26.80	1000sqft	0.00	26,800.00	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 - PG&E 2017 rate for CO2 Intensity Factor

Land Use - Option 2: Residential = 3,450 DU, Commercial = 3.4 million sqft, City Park = 17 acres, Parking = 7,960 spaces. Retail = 26,800 sqft. 61.5-acres

Construction Phase - Default schedule + Specified Demo, Site Prep, Grading/Excavation from Project Applicant, Added a trenching phase

Off-road Equipment - Default equipment and usage

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Added Trenching Phase with default equipment assumptions

Trips and VMT - No Trips, EMFAC2017

Demolition - Demolish 200,000-sqft

Grading - Based on the hauling construction information from project applicant (1.17.2019) and correspondance from 2.19.2020

Architectural Coating -

Vehicle Trips - Project specific trip gen rates for apartments and office. Assuming no trips to the city park. Default strip mall trips

Vehicle Emission Factors - 2030 Vehicle Emissions Santa Clara County

Woodstoves - No hearths or gas fireplaces

Area Coating -

Energy Use - San Jose Reach Code, no natural gas in residential development

Water And Wastewater - WTP 100%

Solid Waste -

Construction Off-road Equipment Mitigation - Advanced BMPs, Tier 4 final mitigation

Area Mitigation -

Energy Mitigation - Reach Code SJ for carbon-free electricity

Stationary Sources - Emergency Generators and Fire Pumps - Seven 1,000 kW generators assumed, one per office structure

Table Name	Column Name	Default Value	New Value
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	517.50	0.00
tblFireplaces	NumberNoFireplace	138.00	0.00

tblFireplaces	NumberWood	586.50	0.00
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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	301.13
tblVehicleEF	MDV	82.28	63.46
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	4.02
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	1.77
tblVehicleTrips	SU_TR	5.86	3.68
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.75

tblVehicleTrips	WD_TR	6.65	4.18
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	7.93
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	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	69.00	0.00
tblWoodstoves	NumberNoncatalytic	69.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	32.1257	0.2955	25.6532	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0404	0.0000	43.0579
Energy	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	11,909.2835	11,909.2835	1.2910	0.3098	12,033.8850
Mobile	9.2335	16.1377	79.4306	0.2574	30.9176	0.1866	31.1042	8.2722	0.1748	8.4470	0.0000	23,665.1356	23,665.1356	0.9377	0.0000	23,688.5769
Stationary	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Waste						0.0000	0.0000		0.0000	0.0000	970.0126	0.0000	970.0126	57.3261	0.0000	2,403.1652
Water						0.0000	0.0000		0.0000	0.0000	294.0308	606.2294	900.2601	1.0957	0.6567	1,123.3627
Total	**42.0448**	**20.8868**	**108.3602**	**0.2770**	**30.9176**	**0.5933**	**31.5109**	**8.2722**	**0.5815**	**8.8537**	**1,264.0434**	**36,401.4237**	**37,665.4671**	**60.7159**	**0.9666**	**39,471.4013**

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	32.1257	0.2955	25.6532	1.36E-03		0.1424	0.1424		0.1424	0.1424	0	42.0481	42.0481	0.0404	0	43.0579
Energy	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0	2,973.51	2,973.51	0.057	0.0545	2,991.18
Mobile	9.2335	16.1377	79.4306	0.2574	30.9176	0.1866	31.1042	8.2722	0.1748	8.447	0	23,665.14	23,665.14	0.9377	0	23,688.58
Stationary	0.3851	1.7222	0.982	1.85E-03		0.0567	0.0567		0.0567	0.0567	0	178.7272	178.7272	0.0251	0	179.3536
Waste						0	0		0	0	970.0126	0	970.0126	57.3261	0	2,403.17
Water						0	0		0	0	294.0308	606.2294	900.2601	1.0957	0.6567	1,123.36
Total	**42.0448**	**20.8868**	**108.3602**	**0.277**	**30.9176**	**0.5933**	**31.5109**	**8.2722**	**0.5815**	**8.8537**	**1,264.04**	**27,465.65**	**28,729.70**	**59.4819**	**0.7113**	**30,428.70**

	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**	**24.55**	**23.72**	**2.03**	**26.41**	**22.91**

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	9.2335	16.1377	79.4306	0.2574	30.9176	0.1866	31.1042	8.2722	0.1748	8.4470	0.0000	23,665.1356	23,665.1356	0.9377	0.0000	23,688.5769
Unmitigated	9.2335	16.1377	79.4306	0.2574	30.9176	0.1866	31.1042	8.2722	0.1748	8.4470	0.0000	23,665.1356	23,665.1356	0.9377	0.0000	23,688.5769

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,421.00	13,869.00	12696.00	32,555,565	32,555,565
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	26,962.00	6,018.00	2550.00	48,948,283	48,948,283
Strip Mall	1,187.78	1,126.67	547.52	1,674,913	1,674,913
Total	42,570.78	21,013.67	15,793.52	83,178,760	83,178,760

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

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
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
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
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	8,935.7712	8,935.7712	1.2340	0.2553	9,042.7026
NaturalGas Mitigated	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	2,973.5123	2,973.5123	0.0570	0.0545	2,991.1824
NaturalGas Unmitigated	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	2,973.5123	2,973.5123	0.0570	0.0545	2,991.1824

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	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
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
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	5.5658e+007	0.3001	2.7283	2.2918	0.0164		0.2074	0.2074		0.2074	0.2074	0.0000	2,970.1228	2,970.1228	0.0569	0.0545	2,987.7728
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.3005**	**2.7314**	**2.2944**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**	**0.0000**	**2,973.5123**	**2,973.5123**	**0.0570**	**0.0545**	**2,991.1824**

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	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
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
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	5.5658e+007	0.3001	2.7283	2.2918	0.0164		0.2074	0.2074		0.2074	0.2074	0.0000	2,970.1228	2,970.1228	0.0569	0.0545	2,987.7728
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096

Total		**0.3005**	**2.7314**	**2.2944**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**	**0.0000**	**2,973.5123**	**2,973.5123**	**0.0570**	**0.0545**	**2,991.1824**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.42428e+007	1,356.6901	0.1874	0.0388	1,372.9251
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.86582e+007	1,777.2794	0.2454	0.0508	1,798.5475
General Office Building	6.0622e+007	5,774.5121	0.7974	0.1650	5,843.6138
Strip Mall	286492	27.2896	3.7700e-003	7.8000e-004	27.6162
Total		**8,935.7712**	**1.2340**	**0.2553**	**9,042.7026**

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
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

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

No Hearths Installed

	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	32.1257	0.2955	25.6532	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0404	0.0000	43.0579
Unmitigated	32.1257	0.2955	25.6532	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0404	0.0000	43.0579

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	4.2819					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.0701					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	0.7737	0.2955	25.6532	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0404	0.0000	43.0579
Total	**32.1257**	**0.2955**	**25.6532**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0481**	**42.0481**	**0.0404**	**0.0000**	**43.0579**

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	4.2819					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.0701					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	0.7737	0.2955	25.6532	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0404	0.0000	43.0579
Total	**32.1257**	**0.2955**	**25.6532**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0481**	**42.0481**	**0.0404**	**0.0000**	**43.0579**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	900.2601	1.0957	0.6567	1,123.3627

Unmitigated	900.2601	1.0957	0.6567	1,123.3627

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	604.295 / 370.374	648.7462	0.7959	0.4774	810.9019
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**900.2601**	**1.0957**	**0.6567**	**1,123.3627**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

General Office Building	604.295 / 370.374	648.7462	0.7959	0.4774	810.9019
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**900.2601**	**1.0957**	**0.6567**	**1,123.3627**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	970.0126	57.3261	0.0000	2,403.1652
Unmitigated	970.0126	57.3261	0.0000	2,403.1652

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3162	641.8574	37.9327	0.0000	1,590.1746
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**970.0126**	**57.3261**	**0.0000**	**2,403.1652**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3162	641.8574	37.9327	0.0000	1,590.1746
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**970.0126**	**57.3261**	**0.0000**	**2,403.1652**

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

Emergency Generator	7	0	50	1341	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Total	**0.3851**	**1.7222**	**0.9820**	**1.8500e-003**		**0.0567**	**0.0567**		**0.0567**	**0.0567**	**0.0000**	**178.7272**	**178.7272**	**0.0251**	**0.0000**	**179.3536**

11.0 Vegetation

Flea Market - AQ/GHG (Option 1) - Santa Clara County, Annual

Flea Market - AQ/GHG (Option 1) - Mitigated Construction & Operational Period Emissions

Santa Clara County, Annual

Includes low VOC paints

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2,200.00	1000sqft	0.00	2,200,000.00	0
Enclosed Parking with Elevator	7,960.00	Space	0.00	3,184,000.00	0
City Park	17.00	Acre	0.00	740,520.00	0
Apartments Mid Rise	3,450.00	Dwelling Unit	61.50	3,450,000.00	9867
Strip Mall	26.80	1000sqft	0.00	26,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
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 - PG&E 2017 rate for CO2 Intensity Factor

Land Use - Option 1: Residential = 3,450 DU, Commercial = 2.2 million sqft, City Park = 17 acres, Parking = 7,960 spaces. Retail = 26,800 sqft. 61.5-acres

Construction Phase - Default schedule + Specified Demo, Site Prep, Grading/Excavation from Project Applicant, Added a trenching phase

Off-road Equipment - Default equipment and usage

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Added Trenching Phase with default equipment assumptions

Trips and VMT - No Trips, using EMFAC2017

Demolition - Demolish 200,000-sqft

Grading - Based on the hauling construction information from project applicant (1.17.2019) and correspondance from 2.19.2020

Architectural Coating - At least 60% of paints have to be super-compliant VOC = effectively 46gm/L interior and 66g/L exterior

Vehicle Trips - Apartment and Office project-specific trip rates. Assuming no park trips and default retail trips

Vehicle Emission Factors - 2029 Vehicle Emissions Santa Clara County

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No hearths or gas fireplaces

Consumer Products - Adjusted ROG for Santa Clara County 2029

Energy Use - San Jose Reach Code, no natural gas in residential developments

Water And Wastewater - WTP 100%

Construction Off-road Equipment Mitigation - Advanced BMPs, Tier 4 mitigation

Area Mitigation - At least 60% of paints have to be super-compliant VOC = effectively 46gm/L interior and 66g/L exterior

Energy Mitigation - Reach Code SJ for carbon-free electricity with SJCE

Stationary Sources - Emergency Generators and Fire Pumps - Seven 1,000 kW generators assumed, one per office structure

Road Dust - entrained road dust adjustment

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	66.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	46.00
tblArchitecturalCoating	EF_Parking	150.00	66.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	66.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	46.00

tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	66
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	150	66
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	66
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	12
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	70.00	87.00
tblConstructionPhase	NumDays	110.00	40.00
tblConstructionPhase	NumDays	40.00	23.00
tblConsumerProducts	ROG_EF	2.14E-05	1.69E-05
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	517.50	0.00
tblFireplaces	NumberNoFireplace	138.00	0.00
tblFireplaces	NumberWood	586.50	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	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
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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	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
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-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	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-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	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblGrading	MaterialExported	0.00	560,000.00
tblGrading	MaterialImported	0.00	70,000.00
tblGrading	MaterialImported	0.00	70,000.00
tblLandUse	LotAcreage	50.51	0.00
tblLandUse	LotAcreage	71.64	0.00
tblLandUse	LotAcreage	17.00	0.00
tblLandUse	LotAcreage	90.79	61.50
tblLandUse	LotAcreage	0.62	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblRoadDust	RoadSiltLoading	0.1	0.0431
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	7.00
tblTripsAndVMT	HaulingTripNumber	910.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,750.00	0.00
tblTripsAndVMT	HaulingTripNumber	78,750.00	0.00
tblTripsAndVMT	VendorTripNumber	1,377.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	4,845.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	969.00	0.00
tblVehicleEF	HHD	0.28	0.02
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.45	6.29
tblVehicleEF	HHD	0.94	0.41
tblVehicleEF	HHD	3.95	6.5410e-003
tblVehicleEF	HHD	4,072.60	949.55
tblVehicleEF	HHD	1,504.98	1,256.80
tblVehicleEF	HHD	12.18	0.05

tblVehicleEF	HHD	12.35	5.23
tblVehicleEF	HHD	1.63	2.54
tblVehicleEF	HHD	19.22	2.32
tblVehicleEF	HHD	4.1680e-003	2.2060e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.7340e-003	0.02
tblVehicleEF	HHD	1.3100e-004	1.0000e-006
tblVehicleEF	HHD	3.9880e-003	2.1110e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8520e-003	8.9020e-003
tblVehicleEF	HHD	5.4850e-003	0.02
tblVehicleEF	HHD	1.2000e-004	1.0000e-006
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	4.5950e-003	6.0000e-005
tblVehicleEF	HHD	0.38	0.42
tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1400e-004	2.9600e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	8.8330e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.8600e-004	1.0000e-006
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	4.5950e-003	6.0000e-005
tblVehicleEF	HHD	0.44	0.49
tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1400e-004	2.9600e-004
tblVehicleEF	HHD	0.08	3.0000e-006

tblVehicleEF	LDA	2.0380e-003	1.0360e-003
tblVehicleEF	LDA	2.3480e-003	0.03
tblVehicleEF	LDA	0.35	0.42
tblVehicleEF	LDA	0.68	1.76
tblVehicleEF	LDA	186.31	204.06
tblVehicleEF	LDA	43.86	43.14
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.2360e-003	9.9200e-004
tblVehicleEF	LDA	1.9290e-003	1.3490e-003
tblVehicleEF	LDA	1.1380e-003	9.1300e-004
tblVehicleEF	LDA	1.7740e-003	1.2400e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	5.1060e-003	3.5590e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.8640e-003	9.1000e-005
tblVehicleEF	LDA	4.4900e-004	0.00
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	7.4270e-003	5.1710e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.14
tblVehicleEF	LDT1	4.0970e-003	1.8800e-003
tblVehicleEF	LDT1	5.1740e-003	0.04
tblVehicleEF	LDT1	0.60	0.57
tblVehicleEF	LDT1	1.24	1.90

tblVehicleEF	LDT1	239.17	246.41
tblVehicleEF	LDT1	56.19	52.70
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT1	1.5670e-003	1.1520e-003
tblVehicleEF	LDT1	2.3160e-003	1.5580e-003
tblVehicleEF	LDT1	1.4410e-003	1.0600e-003
tblVehicleEF	LDT1	2.1290e-003	1.4330e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	7.4430e-003
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.07	0.17
tblVehicleEF	LDT1	2.3970e-003	2.5810e-003
tblVehicleEF	LDT1	5.8300e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.08	0.18
tblVehicleEF	LDT2	3.1920e-003	1.8670e-003
tblVehicleEF	LDT2	3.5040e-003	0.04
tblVehicleEF	LDT2	0.51	0.58
tblVehicleEF	LDT2	0.94	2.34
tblVehicleEF	LDT2	270.74	256.39
tblVehicleEF	LDT2	63.09	55.32
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.06	0.18

tblVehicleEF	LDT2	1.3880e-003	1.0840e-003
tblVehicleEF	LDT2	2.1170e-003	1.4110e-003
tblVehicleEF	LDT2	1.2770e-003	9.9800e-004
tblVehicleEF	LDT2	1.9460e-003	1.2970e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	7.9240e-003	7.1570e-003
tblVehicleEF	LDT2	0.06	0.35
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LDT2	2.7110e-003	9.6020e-003
tblVehicleEF	LDT2	6.4600e-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	0.01
tblVehicleEF	LDT2	0.06	0.35
tblVehicleEF	LDT2	0.05	0.21
tblVehicleEF	LHD1	4.1410e-003	4.2630e-003
tblVehicleEF	LHD1	9.6710e-003	5.5890e-003
tblVehicleEF	LHD1	0.01	9.6960e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.67	0.51
tblVehicleEF	LHD1	1.79	0.92
tblVehicleEF	LHD1	8.94	8.35
tblVehicleEF	LHD1	646.63	709.40
tblVehicleEF	LHD1	27.62	10.32
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.59	0.34
tblVehicleEF	LHD1	0.72	0.24

tblVehicleEF	LHD1	8.0600e-004	9.0500e-004
tblVehicleEF	LHD1	0.01	9.8860e-003
tblVehicleEF	LHD1	0.01	7.3630e-003
tblVehicleEF	LHD1	7.0200e-004	2.1700e-004
tblVehicleEF	LHD1	7.7200e-004	8.6600e-004
tblVehicleEF	LHD1	2.5940e-003	2.4720e-003
tblVehicleEF	LHD1	0.01	6.9990e-003
tblVehicleEF	LHD1	6.4500e-004	1.9900e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD1	8.9000e-005	8.1000e-005
tblVehicleEF	LHD1	6.3210e-003	6.9190e-003
tblVehicleEF	LHD1	3.0900e-004	1.0200e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD2	2.6180e-003	2.5740e-003
tblVehicleEF	LHD2	3.5130e-003	5.1650e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.46	0.50
tblVehicleEF	LHD2	0.90	0.50

tblVehicleEF	LHD2	13.67	13.14
tblVehicleEF	LHD2	678.66	689.54
tblVehicleEF	LHD2	22.03	6.59
tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.26	0.43
tblVehicleEF	LHD2	0.28	0.13
tblVehicleEF	LHD2	1.0710e-003	1.4940e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.6870e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0800e-004
tblVehicleEF	LHD2	1.0240e-003	1.4290e-003
tblVehicleEF	LHD2	2.7060e-003	2.7090e-003
tblVehicleEF	LHD2	9.2450e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.9000e-005
tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2500e-004
tblVehicleEF	LHD2	6.5940e-003	6.6520e-003
tblVehicleEF	LHD2	2.3600e-004	6.5000e-005
tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16

tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	17.62	17.72
tblVehicleEF	MCY	10.32	9.18
tblVehicleEF	MCY	171.24	209.80
tblVehicleEF	MCY	43.13	59.44
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1460e-003	2.1240e-003
tblVehicleEF	MCY	3.3780e-003	2.8870e-003
tblVehicleEF	MCY	2.0020e-003	1.9820e-003
tblVehicleEF	MCY	3.1630e-003	2.7020e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.13	2.14
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.12	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.6200e-004	5.8800e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.67	2.67
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.31	2.05
tblVehicleEF	MDV	5.5000e-003	1.9360e-003
tblVehicleEF	MDV	7.9330e-003	0.05
tblVehicleEF	MDV	0.71	0.57

tblVehicleEF	MDV	1.62	2.40
tblVehicleEF	MDV	367.51	309.06
tblVehicleEF	MDV	84.52	65.31
tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	1.4670e-003	1.1000e-003
tblVehicleEF	MDV	2.1720e-003	1.4190e-003
tblVehicleEF	MDV	1.3510e-003	1.0140e-003
tblVehicleEF	MDV	1.9970e-003	1.3050e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	7.6040e-003
tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.6760e-003	3.0540e-003
tblVehicleEF	MDV	8.7300e-004	6.4600e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	0.01	5.5400e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.64	0.38
tblVehicleEF	MH	3.95	1.69
tblVehicleEF	MH	1,187.29	1,370.22
tblVehicleEF	MH	57.03	15.90
tblVehicleEF	MH	0.89	1.10

tblVehicleEF	MH	0.65	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	9.1300e-004	2.1800e-004
tblVehicleEF	MH	3.2210e-003	3.2950e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.4000e-004	2.0000e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3900e-004	1.5700e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.26	0.08
tblVehicleEF	MHD	0.02	3.7880e-003
tblVehicleEF	MHD	2.8710e-003	1.0920e-003
tblVehicleEF	MHD	0.03	8.4000e-003
tblVehicleEF	MHD	0.37	0.40
tblVehicleEF	MHD	0.26	0.16
tblVehicleEF	MHD	3.91	0.89
tblVehicleEF	MHD	132.56	66.14
tblVehicleEF	MHD	1,170.12	1,006.37
tblVehicleEF	MHD	59.44	8.59

tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.05	1.43
tblVehicleEF	MHD	10.04	1.69
tblVehicleEF	MHD	5.9000e-005	1.8700e-004
tblVehicleEF	MHD	3.0300e-003	7.0280e-003
tblVehicleEF	MHD	8.2100e-004	1.1100e-004
tblVehicleEF	MHD	5.6000e-005	1.7900e-004
tblVehicleEF	MHD	2.8920e-003	6.7170e-003
tblVehicleEF	MHD	7.5500e-004	1.0200e-004
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.24	0.04
tblVehicleEF	MHD	1.2770e-003	6.2800e-004
tblVehicleEF	MHD	0.01	9.6020e-003
tblVehicleEF	MHD	6.6300e-004	8.5000e-005
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	OBUS	0.01	7.0930e-003
tblVehicleEF	OBUS	4.3010e-003	2.3640e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64

tblVehicleEF	OBUS	0.32	0.28
tblVehicleEF	OBUS	4.16	1.61
tblVehicleEF	OBUS	111.44	97.29
tblVehicleEF	OBUS	1,275.89	1,225.69
tblVehicleEF	OBUS	65.07	13.68
tblVehicleEF	OBUS	0.25	0.43
tblVehicleEF	OBUS	0.89	1.44
tblVehicleEF	OBUS	2.75	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4100e-004
tblVehicleEF	OBUS	2.8900e-003	7.7790e-003
tblVehicleEF	OBUS	9.2700e-004	1.5500e-004
tblVehicleEF	OBUS	2.1000e-005	1.3500e-004
tblVehicleEF	OBUS	2.7430e-003	7.4280e-003
tblVehicleEF	OBUS	8.5200e-004	1.4200e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0750e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2400e-004	1.3500e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18

tblVehicleEF	OBUS	0.29	0.09
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	8.9530e-003	4.6480e-003
tblVehicleEF	SBUS	0.06	6.0510e-003
tblVehicleEF	SBUS	8.77	2.81
tblVehicleEF	SBUS	0.56	0.39
tblVehicleEF	SBUS	7.85	0.83
tblVehicleEF	SBUS	1,034.78	339.74
tblVehicleEF	SBUS	1,014.13	984.83
tblVehicleEF	SBUS	61.18	4.88
tblVehicleEF	SBUS	4.86	2.86
tblVehicleEF	SBUS	1.94	3.38
tblVehicleEF	SBUS	10.92	1.12
tblVehicleEF	SBUS	2.7540e-003	2.2930e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.8310e-003	0.02
tblVehicleEF	SBUS	1.0690e-003	6.4000e-005
tblVehicleEF	SBUS	2.6350e-003	2.1940e-003
tblVehicleEF	SBUS	2.5930e-003	2.6780e-003
tblVehicleEF	SBUS	9.3860e-003	0.02
tblVehicleEF	SBUS	9.8300e-004	5.9000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.04	0.31
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.41	0.03
tblVehicleEF	SBUS	0.01	3.2390e-003
tblVehicleEF	SBUS	9.7970e-003	9.4210e-003

tblVehicleEF	SBUS	7.4700e-004	4.8000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.51	0.45
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.09	0.08
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.45	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.0890e-003
tblVehicleEF	UBUS	3.18	14.11
tblVehicleEF	UBUS	7.55	0.14
tblVehicleEF	UBUS	1,951.30	1,668.67
tblVehicleEF	UBUS	123.95	1.40
tblVehicleEF	UBUS	5.24	0.71
tblVehicleEF	UBUS	13.19	0.01
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	5.1160e-003
tblVehicleEF	UBUS	1.3530e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.11	4.8930e-003
tblVehicleEF	UBUS	1.2440e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.63	8.8270e-003

tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.3770e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.51	1.90
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.69	9.6650e-003
tblVehicleTrips	ST_TR	6.39	4.02
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	1.87
tblVehicleTrips	SU_TR	5.86	3.68
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.80
tblVehicleTrips	WD_TR	6.65	4.18
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	8.37
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	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	69.00	0.00
tblWoodstoves	NumberNoncatalytic	69.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2989	2.9686	2.6861	5.3600e-003	0.6251	0.1315	0.7565	0.2411	0.1217	0.3627	0.0000	469.6110	469.6110	0.1420	0.0000	473.1610
2024	0.1928	1.7611	2.1179	3.5300e-003	0.0000	0.0803	0.0803	0.0000	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
2025	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2026	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2027	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2028	16.6269	0.5518	0.8558	1.3700e-003	0.0000	0.0255	0.0255	0.0000	0.0238	0.0238	0.0000	119.4348	119.4348	0.0330	0.0000	120.2593
Maximum	**16.6269**	**2.9686**	**2.6861**	**5.3600e-003**	**0.6251**	**0.1315**	**0.7565**	**0.2411**	**0.1217**	**0.3627**	**0.0000**	**469.6110**	**469.6110**	**0.1420**	**0.0000**	**473.1610**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0651	0.2963	3.1131	5.3600e-003	0.2438	8.6300e-003	0.2524	0.0470	8.6300e-003	0.0556	0.0000	469.6104	469.6104	0.1420	0.0000	473.1604
2024	0.0429	0.2928	2.2873	3.5300e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
2025	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2026	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2027	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2028	16.5822	0.0839	0.9792	1.3700e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	119.4347	119.4347	0.0330	0.0000	120.2592
Maximum	**16.5822**	**0.2963**	**3.1131**	**5.3600e-003**	**0.2438**	**8.6300e-003**	**0.2524**	**0.0470**	**8.6300e-003**	**0.0556**	**0.0000**	**469.6104**	**469.6104**	**0.1420**	**0.0000**	**473.1604**

	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	**4.73**	**84.77**	**-10.52**	**0.00**	**61.00**	**92.77**	**74.19**	**80.50**	**92.27**	**87.95**	**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	**4-15-2023**	**7-14-2023**	0.9929	0.1109
2	**7-15-2023**	**10-14-2023**	1.3343	0.1354
3	**10-15-2023**	**1-14-2024**	1.0077	0.1275
4	**1-15-2024**	**4-14-2024**	0.4847	0.0833
5	**4-15-2024**	**7-14-2024**	0.4847	0.0833
6	**7-15-2024**	**10-14-2024**	0.4901	0.0842
7	**10-15-2024**	**1-14-2025**	0.4847	0.0842
8	**1-15-2025**	**4-14-2025**	0.4448	0.0824
9	**4-15-2025**	**7-14-2025**	0.4497	0.0833
10	**7-15-2025**	**10-14-2025**	0.4546	0.0842
11	**10-15-2025**	**1-14-2026**	0.4546	0.0842
12	**1-15-2026**	**4-14-2026**	0.4448	0.0824
13	**4-15-2026**	**7-14-2026**	0.4497	0.0833

14	**7-15-2026**	**10-14-2026**	0.4546	0.0842
15	**10-15-2026**	**1-14-2027**	0.4546	0.0842
16	**1-15-2027**	**4-14-2027**	0.4448	0.0824
17	**4-15-2027**	**7-14-2027**	0.4497	0.0833
18	**7-15-2027**	**10-14-2027**	0.4546	0.0842
19	**10-15-2027**	**1-14-2028**	0.4546	0.0842
20	**1-15-2028**	**4-14-2028**	0.3520	0.0593
21	**4-15-2028**	**7-14-2028**	7.8961	7.7559
22	**7-15-2028**	**9-30-2028**	8.8613	8.8382
		Highest	8.8613	8.8382

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	22.1546	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Energy	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	8,822.9417	8,822.9417	0.9894	0.2324	8,916.9250
Mobile	7.8829	13.4561	66.5647	0.2128	13.6592	0.1580	13.8172	3.9086	0.1479	4.0565	0.0000	19,666.0386	19,666.0386	0.7973	0.0000	19,685.9699
Stationary	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Waste						0.0000	0.0000		0.0000	0.0000	743.4747	0.0000	743.4747	43.9381	0.0000	1,841.9271
Water						0.0000	0.0000		0.0000	0.0000	218.5718	452.7191	671.2909	0.8148	0.4883	837.1620
Total	**30.6172**	**17.2425**	**94.7181**	**0.2267**	**13.6592**	**0.4914**	**14.1506**	**3.9086**	**0.4813**	**4.3899**	**962.0465**	**29,162.4532**	**30,124.4997**	**46.6052**	**0.7206**	**31,504.3779**

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	21.4473	0.2956	25.6859	1.36E-03		0.1423	0.1423		0.1423	0.1423	0	42.0267	42.0267	0.0406	0	43.0403
Energy	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0	1,925.23	1,925.23	0.0369	0.0353	1,936.67
Mobile	7.8829	13.4561	66.5647	0.2128	13.6592	0.158	13.8172	3.9086	0.1479	4.0565	0	19,666.04	19,666.04	0.7973	0	19,685.97
Stationary	0.3851	1.7222	0.982	1.85E-03		0.0567	0.0567		0.0567	0.0567	0	178.7272	178.7272	0.0251	0	179.3536
Waste						0	0		0	0	743.4747	0	743.4747	43.9381	0	1,841.93
Water						0	0		0	0	218.5718	452.7191	671.2909	0.8148	0.4883	837.162
Total	**29.9099**	**17.2425**	**94.7181**	**0.2267**	**13.6592**	**0.4914**	**14.1506**	**3.9086**	**0.4813**	**4.3899**	**962.0465**	**22,264.75**	**23,226.79**	**45.6527**	**0.5236**	**24,524.13**

	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	**2.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23.65**	**22.90**	**2.04**	**27.35**	**22.16**

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	4/15/2023	8/15/2023	5	87	
2	Site Preparation	Site Preparation	8/16/2023	9/16/2023	5	23	
3	Grading	Grading	9/17/2023	11/10/2023	5	40	
4	Trenching	Trenching	9/17/2023	11/10/2023	5	40	Overlapping with Grading
5	Building Construction	Building Construction	11/12/2023	2/11/2028	5	1110	
6	Paving	Paving	2/12/2028	5/26/2028	5	75	
7	Architectural Coating	Architectural Coating	5/27/2028	9/8/2028	5	75	

Acres of Grading (Site Preparation Phase): 23

Acres of Grading (Grading Phase): 180

Acres of Paving: 0

Residential Indoor: 6,986,250; Residential Outdoor: 2,328,750; Non-Residential Indoor: 3,340,200; Non-Residential Outdoor: 1,113,400;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	2	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Architectural Coating	Air Compressors	1	6.00	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
Demolition	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0984	0.0000	0.0984	0.0149	0.0000	0.0149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1267	1.2023	1.2874	2.3200e-003		0.0566	0.0566		0.0525	0.0525	0.0000	203.3039	203.3039	0.0593	0.0000	204.7874

Total	**0.1267**	**1.2023**	**1.2874**	**2.3200e-003**	**0.0984**	**0.0566**	**0.1550**	**0.0149**	**0.0525**	**0.0674**	**0.0000**	**203.3039**	**203.3039**	**0.0593**	**0.0000**	**204.7874**

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					0.0384	0.0000	0.0384	2.9100e-003	0.0000	2.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0278	0.1206	1.4888	2.3200e-003		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	203.3036	203.3036	0.0593	0.0000	204.7871
Total	**0.0278**	**0.1206**	**1.4888**	**2.3200e-003**	**0.0384**	**3.7100e-003**	**0.0421**	**2.9100e-003**	**3.7100e-003**	**6.6200e-003**	**0.0000**	**203.3036**	**203.3036**	**0.0593**	**0.0000**	**204.7871**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1547	0.0000	0.1547	0.0781	0.0000	0.0781	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2886	0.1360	3.8000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**0.0263**	**0.2886**	**0.1360**	**3.8000e-004**	**0.1547**	**0.0117**	**0.1664**	**0.0781**	**0.0108**	**0.0888**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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					0.0603	0.0000	0.0603	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7100e-003	0.0204	0.1835	3.8000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**4.7100e-003**	**0.0204**	**0.1835**	**3.8000e-004**	**0.0603**	**6.3000e-004**	**0.0610**	**0.0152**	**6.3000e-004**	**0.0159**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3720	0.0000	0.3720	0.1481	0.0000	0.1481	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1048	1.1025	0.7589	1.8500e-003		0.0449	0.0449		0.0413	0.0413	0.0000	162.8769	162.8769	0.0527	0.0000	164.1939
Total	**0.1048**	**1.1025**	**0.7589**	**1.8500e-003**	**0.3720**	**0.0449**	**0.4168**	**0.1481**	**0.0413**	**0.1894**	**0.0000**	**162.8769**	**162.8769**	**0.0527**	**0.0000**	**164.1939**

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					0.1451	0.0000	0.1451	0.0289	0.0000	0.0289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.0986	0.8849	1.8500e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	162.8767	162.8767	0.0527	0.0000	164.1937
Total	**0.0228**	**0.0986**	**0.8849**	**1.8500e-003**	**0.1451**	**3.0300e-003**	**0.1481**	**0.0289**	**3.0300e-003**	**0.0319**	**0.0000**	**162.8767**	**162.8767**	**0.0527**	**0.0000**	**164.1937**

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 - 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	0.0136	0.1234	0.2196	3.3000e-004		6.0600e-003	6.0600e-003		5.5800e-003	5.5800e-003	0.0000	29.0910	29.0910	9.4100e-003	0.0000	29.3262
Total	**0.0136**	**0.1234**	**0.2196**	**3.3000e-004**		**6.0600e-003**	**6.0600e-003**		**5.5800e-003**	**5.5800e-003**	**0.0000**	**29.0910**	**29.0910**	**9.4100e-003**	**0.0000**	**29.3262**

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	4.0600e-003	0.0176	0.2504	3.3000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	29.0909	29.0909	9.4100e-003	0.0000	29.3261
Total	**4.0600e-003**	**0.0176**	**0.2504**	**3.3000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**29.0909**	**29.0909**	**9.4100e-003**	**0.0000**	**29.3261**

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	0.0275	0.2517	0.2843	4.7000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8071
Total	**0.0275**	**0.2517**	**0.2843**	**4.7000e-004**		**0.0123**	**0.0123**		**0.0115**	**0.0115**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8071**

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	5.7400e-003	0.0391	0.3056	4.7000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8070
Total	**5.7400e-003**	**0.0391**	**0.3056**	**4.7000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8070**

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 - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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 - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2027

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2028

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	0.0205	0.1871	0.2413	4.0000e-004		7.9100e-003	7.9100e-003		7.4400e-003	7.4400e-003	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9924
Total	**0.0205**	**0.1871**	**0.2413**	**4.0000e-004**		**7.9100e-003**	**7.9100e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9924**

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	4.9200e-003	0.0335	0.2619	4.0000e-004		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9923
Total	**4.9200e-003**	**0.0335**	**0.2619**	**4.0000e-004**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9923**

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 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3218	0.5467	8.5000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	75.0722	75.0722	0.0243	0.0000	75.6792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0343**	**0.3218**	**0.5467**	**8.5000e-004**		**0.0157**	**0.0157**		**0.0144**	**0.0144**	**0.0000**	**75.0722**	**75.0722**	**0.0243**	**0.0000**	**75.6792**

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	0.0105	0.0456	0.6486	8.5000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.0721	75.0721	0.0243	0.0000	75.6791
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0456**	**0.6486**	**8.5000e-004**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**	**0.0000**	**75.0721**	**75.0721**	**0.0243**	**0.0000**	**75.6791**

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 Architectural Coating - 2028

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	16.5657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4100e-003	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**16.5721**	**0.0430**	**0.0678**	**1.1000e-004**		**1.9300e-003**	**1.9300e-003**		**1.9300e-003**	**1.9300e-003**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	16.5657					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**16.5668**	**4.8300e-003**	**0.0687**	**1.1000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	7.8829	13.4561	66.5647	0.2128	13.6592	0.1580	13.8172	3.9086	0.1479	4.0565	0.0000	19,666.0386	19,666.0386	0.7973	0.0000	19,685.9699
Unmitigated	7.8829	13.4561	66.5647	0.2128	13.6592	0.1580	13.8172	3.9086	0.1479	4.0565	0.0000	19,666.0386	19,666.0386	0.7973	0.0000	19,685.9699

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,421.00	13,869.00	12696.00	32,555,565	32,555,565
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	18,414.00	4,114.00	1760.00	33,437,421	33,437,421
Strip Mall	1,187.78	1,126.67	547.52	1,674,913	1,674,913
Total	34,022.78	19,109.67	15,003.52	67,667,899	67,667,899

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
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
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	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
City Park	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Enclosed Parking with Elevator	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
General Office Building	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Strip Mall	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730

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	6,897.7081	6,897.7081	0.9525	0.1971	6,980.2507
NaturalGas Mitigated	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	1,925.2337	1,925.2337	0.0369	0.0353	1,936.6744
NaturalGas Unmitigated	0.1945	1.7685	1.4855	0.0106		0.1344	0.1344		0.1344	0.1344	0.0000	1,925.2337	1,925.2337	0.0369	0.0353	1,936.6744

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	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
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
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	3.6014e+007	0.1942	1.7654	1.4829	0.0106		0.1342	0.1342		0.1342	0.1342	0.0000	1,921.8442	1,921.8442	0.0368	0.0352	1,933.2648
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.1945**	**1.7685**	**1.4856**	**0.0106**		**0.1344**	**0.1344**		**0.1344**	**0.1344**	**0.0000**	**1,925.2337**	**1,925.2337**	**0.0369**	**0.0353**	**1,936.6744**

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	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
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
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	3.6014e+007	0.1942	1.7654	1.4829	0.0106		0.1342	0.1342		0.1342	0.1342	0.0000	1,921.8442	1,921.8442	0.0368	0.0352	1,933.2648
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096

Total		**0.1945**	**1.7685**	**1.4856**	**0.0106**		**0.1344**	**0.1344**		**0.1344**	**0.1344**	**0.0000**	**1,925.2337**	**1,925.2337**	**0.0369**	**0.0353**	**1,936.6744**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.42428e+007	1,356.6901	0.1874	0.0388	1,372.9251
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.86582e+007	1,777.2794	0.2454	0.0508	1,798.5475
General Office Building	3.9226e+007	3,736.4490	0.5160	0.1068	3,781.1618
Strip Mall	286492	27.2896	3.7700e-003	7.8000e-004	27.6162
Total		**6,897.7081**	**0.9525**	**0.1971**	**6,980.2507**

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
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

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

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	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	21.4473	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Unmitigated	22.1546	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403

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	3.6561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	17.7215					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	0.7770	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Total	**22.1546**	**0.2956**	**25.6859**	**1.3600e-003**		**0.1423**	**0.1423**		**0.1423**	**0.1423**	**0.0000**	**42.0267**	**42.0267**	**0.0406**	**0.0000**	**43.0403**

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	2.9489					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	17.7215					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	0.7770	0.2956	25.6859	1.3600e-003		0.1423	0.1423		0.1423	0.1423	0.0000	42.0267	42.0267	0.0406	0.0000	43.0403
Total	**21.4473**	**0.2956**	**25.6859**	**1.3600e-003**		**0.1423**	**0.1423**		**0.1423**	**0.1423**	**0.0000**	**42.0267**	**42.0267**	**0.0406**	**0.0000**	**43.0403**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mitigated	671.2909	0.8148	0.4883	837.1620
Unmitigated	671.2909	0.8148	0.4883	837.1620

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	391.014 / 239.654	419.7769	0.5150	0.3089	524.7012
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**671.2909**	**0.8148**	**0.4883**	**837.1620**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337

Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	391.014 / 239.654	419.7769	0.5150	0.3089	524.7012
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**671.2909**	**0.8148**	**0.4883**	**837.1620**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	743.4747	43.9381	0.0000	1,841.9271
Unmitigated	743.4747	43.9381	0.0000	1,841.9271

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047

City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2046	415.3195	24.5447	0.0000	1,028.9365
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**743.4747**	**43.9381**	**0.0000**	**1,841.9271**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2046	415.3195	24.5447	0.0000	1,028.9365
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**743.4747**	**43.9381**	**0.0000**	**1,841.9271**

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
Emergency Generator	7	0	50	1341	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Total	**0.3851**	**1.7222**	**0.9820**	**1.8500e-003**		**0.0567**	**0.0567**		**0.0567**	**0.0567**	**0.0000**	**178.7272**	**178.7272**	**0.0251**	**0.0000**	**179.3536**

11.0 Vegetation

Flea Market - AQ/GHG (Option 2) - Santa Clara County, Annual

Flea Market - AQ/GHG (Option 2) - Mitigated Construction & Operational Period Emissions

Santa Clara County, Annual

Includes Low VOC Paints

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3,400.00	1000sqft	0.00	3,400,000.00	0
Enclosed Parking with Elevator	7,960.00	Space	0.00	3,184,000.00	0
City Park	17.00	Acre	0.00	740,520.00	0
Apartments Mid Rise	3,450.00	Dwelling Unit	61.50	3,450,000.00	9867
Strip Mall	26.80	1000sqft	0.00	26,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2029
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 - PG&E 2017 rate for CO2 Intensity Factor

Land Use - Option 2: Residential = 3,450 DU, Commercial = 3.4 million sqft, City Park = 17 acres, Parking = 7,960 spaces. Retail = 26,800 sqft. 61.5-acres

Construction Phase - Default schedule + Specified Demo, Site Prep, Grading/Excavation from Project Applicant, Added a trenching phase

Off-road Equipment - Default equipment and usage

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Default equipment and usage

Off-road Equipment - Based on the hauling construction information from project applicant (1.17.2019)

Off-road Equipment - Added Trenching Phase with default equipment assumptions

Trips and VMT - No Trips, EMFAC2017

Demolition - Demolish 200,000-sqft

Grading - Based on the hauling construction information from project applicant (1.17.2019) and correspondance from 2.19.2020

Architectural Coating - 60% of paints need to super-complaint VOC

Vehicle Trips - Project specific trip gen rates for apartments and office. Assuming no trips to the city park. Default strip mall trips

Vehicle Emission Factors - 2029 Vehicle Emissions Santa Clara County

Woodstoves - No hearths or gas fireplaces

Area Coating -

Energy Use - San Jose Reach Code, no natural gas in residential development

Water And Wastewater - WTP 100%

Solid Waste -

Construction Off-road Equipment Mitigation - Advanced BMPs, Tier 4 final mitigation

Area Mitigation - 60% of paints need to be super-compliant VOC only for exterior

Energy Mitigation - Reach Code SJ for carbon-free electricity

Stationary Sources - Emergency Generators and Fire Pumps - Seven 1,000 kW generators assumed, one per office structure

Road Dust - entrained road dust adjustment

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	66.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	46.00
tblArchitecturalCoating	EF_Parking	150.00	66.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	66.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	46.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	150	66
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True

tblAreaMitigation	UseLowVOCPaintParkingValue	150	66
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	66
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	12
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	70.00	87.00
tblConstructionPhase	NumDays	110.00	40.00
tblConstructionPhase	NumDays	40.00	23.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24NG	5,484.45	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	517.50	0.00
tblFireplaces	NumberNoFireplace	138.00	0.00
tblFireplaces	NumberWood	586.50	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	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	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
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	LHD2	5.0500e-003	5.5190e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-003
tblFleetMix	MCY	5.1390e-003	4.8280e-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	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-004
tblFleetMix	MH	6.5600e-004	7.3000e-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	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	OBUS	2.2140e-003	1.4590e-003
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	SBUS	6.4500e-004	9.0400e-004
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblFleetMix	UBUS	1.4750e-003	1.1890e-003
tblGrading	MaterialExported	0.00	560,000.00
tblGrading	MaterialImported	0.00	70,000.00
tblGrading	MaterialImported	0.00	70,000.00
tblLandUse	LotAcreage	78.05	0.00
tblLandUse	LotAcreage	71.64	0.00
tblLandUse	LotAcreage	17.00	0.00
tblLandUse	LotAcreage	90.79	61.50
tblLandUse	LotAcreage	0.62	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblRoadDust	RoadSiltLoading	0.1	0.0431
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	7.00
tblTripsAndVMT	HaulingTripNumber	910.00	0.00
tblTripsAndVMT	HaulingTripNumber	8,750.00	0.00
tblTripsAndVMT	HaulingTripNumber	78,750.00	0.00
tblTripsAndVMT	VendorTripNumber	1,574.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5,229.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,046.00	0.00
tblVehicleEF	HHD	0.28	0.02
tblVehicleEF	HHD	0.06	0.05
tblVehicleEF	HHD	0.06	0.00
tblVehicleEF	HHD	1.45	6.29
tblVehicleEF	HHD	0.94	0.41
tblVehicleEF	HHD	3.95	6.5410e-003
tblVehicleEF	HHD	4,072.60	949.55
tblVehicleEF	HHD	1,504.98	1,256.80
tblVehicleEF	HHD	12.18	0.05
tblVehicleEF	HHD	12.35	5.23
tblVehicleEF	HHD	1.63	2.54
tblVehicleEF	HHD	19.22	2.32

tblVehicleEF	HHD	4.1680e-003	2.2060e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.7340e-003	0.02
tblVehicleEF	HHD	1.3100e-004	1.0000e-006
tblVehicleEF	HHD	3.9880e-003	2.1110e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8520e-003	8.9020e-003
tblVehicleEF	HHD	5.4850e-003	0.02
tblVehicleEF	HHD	1.2000e-004	1.0000e-006
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	4.5950e-003	6.0000e-005
tblVehicleEF	HHD	0.38	0.42
tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	4.1400e-004	2.9600e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	8.8330e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.8600e-004	1.0000e-006
tblVehicleEF	HHD	9.9000e-005	1.0000e-006
tblVehicleEF	HHD	4.5950e-003	6.0000e-005
tblVehicleEF	HHD	0.44	0.49
tblVehicleEF	HHD	6.3000e-005	1.0000e-006
tblVehicleEF	HHD	0.15	0.07
tblVehicleEF	HHD	4.1400e-004	2.9600e-004
tblVehicleEF	HHD	0.08	3.0000e-006
tblVehicleEF	LDA	2.0380e-003	1.0360e-003
tblVehicleEF	LDA	2.3480e-003	0.03
tblVehicleEF	LDA	0.35	0.42

tblVehicleEF	LDA	0.68	1.76
tblVehicleEF	LDA	186.31	204.06
tblVehicleEF	LDA	43.86	43.14
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.2360e-003	9.9200e-004
tblVehicleEF	LDA	1.9290e-003	1.3490e-003
tblVehicleEF	LDA	1.1380e-003	9.1300e-004
tblVehicleEF	LDA	1.7740e-003	1.2400e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	5.1060e-003	3.5590e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	1.8640e-003	9.1000e-005
tblVehicleEF	LDA	4.4900e-004	0.00
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	7.4270e-003	5.1710e-003
tblVehicleEF	LDA	0.03	0.17
tblVehicleEF	LDA	0.03	0.14
tblVehicleEF	LDT1	4.0970e-003	1.8800e-003
tblVehicleEF	LDT1	5.1740e-003	0.04
tblVehicleEF	LDT1	0.60	0.57
tblVehicleEF	LDT1	1.24	1.90
tblVehicleEF	LDT1	239.17	246.41
tblVehicleEF	LDT1	56.19	52.70
tblVehicleEF	LDT1	0.05	0.04

tblVehicleEF	LDT1	0.06	0.16
tblVehicleEF	LDT1	1.5670e-003	1.1520e-003
tblVehicleEF	LDT1	2.3160e-003	1.5580e-003
tblVehicleEF	LDT1	1.4410e-003	1.0600e-003
tblVehicleEF	LDT1	2.1290e-003	1.4330e-003
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	7.4430e-003
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.07	0.17
tblVehicleEF	LDT1	2.3970e-003	2.5810e-003
tblVehicleEF	LDT1	5.8300e-004	0.00
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.10	0.39
tblVehicleEF	LDT1	0.08	0.18
tblVehicleEF	LDT2	3.1920e-003	1.8670e-003
tblVehicleEF	LDT2	3.5040e-003	0.04
tblVehicleEF	LDT2	0.51	0.58
tblVehicleEF	LDT2	0.94	2.34
tblVehicleEF	LDT2	270.74	256.39
tblVehicleEF	LDT2	63.09	55.32
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.06	0.18
tblVehicleEF	LDT2	1.3880e-003	1.0840e-003
tblVehicleEF	LDT2	2.1170e-003	1.4110e-003
tblVehicleEF	LDT2	1.2770e-003	9.9800e-004

tblVehicleEF	LDT2	1.9460e-003	1.2970e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	7.9240e-003	7.1570e-003
tblVehicleEF	LDT2	0.06	0.35
tblVehicleEF	LDT2	0.05	0.20
tblVehicleEF	LDT2	2.7110e-003	9.6020e-003
tblVehicleEF	LDT2	6.4600e-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	0.01
tblVehicleEF	LDT2	0.06	0.35
tblVehicleEF	LDT2	0.05	0.21
tblVehicleEF	LHD1	4.1410e-003	4.2630e-003
tblVehicleEF	LHD1	9.6710e-003	5.5890e-003
tblVehicleEF	LHD1	0.01	9.6960e-003
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.67	0.51
tblVehicleEF	LHD1	1.79	0.92
tblVehicleEF	LHD1	8.94	8.35
tblVehicleEF	LHD1	646.63	709.40
tblVehicleEF	LHD1	27.62	10.32
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.59	0.34
tblVehicleEF	LHD1	0.72	0.24
tblVehicleEF	LHD1	8.0600e-004	9.0500e-004
tblVehicleEF	LHD1	0.01	9.8860e-003
tblVehicleEF	LHD1	0.01	7.3630e-003

tblVehicleEF	LHD1	7.0200e-004	2.1700e-004
tblVehicleEF	LHD1	7.7200e-004	8.6600e-004
tblVehicleEF	LHD1	2.5940e-003	2.4720e-003
tblVehicleEF	LHD1	0.01	6.9990e-003
tblVehicleEF	LHD1	6.4500e-004	1.9900e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.16	0.05
tblVehicleEF	LHD1	8.9000e-005	8.1000e-005
tblVehicleEF	LHD1	6.3210e-003	6.9190e-003
tblVehicleEF	LHD1	3.0900e-004	1.0200e-004
tblVehicleEF	LHD1	1.9860e-003	1.4890e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0760e-003	8.0800e-004
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.27	0.43
tblVehicleEF	LHD1	0.18	0.05
tblVehicleEF	LHD2	2.6180e-003	2.5740e-003
tblVehicleEF	LHD2	3.5130e-003	5.1650e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.46	0.50
tblVehicleEF	LHD2	0.90	0.50
tblVehicleEF	LHD2	13.67	13.14
tblVehicleEF	LHD2	678.66	689.54
tblVehicleEF	LHD2	22.03	6.59

tblVehicleEF	LHD2	0.07	0.08
tblVehicleEF	LHD2	0.26	0.43
tblVehicleEF	LHD2	0.28	0.13
tblVehicleEF	LHD2	1.0710e-003	1.4940e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	9.6870e-003	0.01
tblVehicleEF	LHD2	3.7400e-004	1.0800e-004
tblVehicleEF	LHD2	1.0240e-003	1.4290e-003
tblVehicleEF	LHD2	2.7060e-003	2.7090e-003
tblVehicleEF	LHD2	9.2450e-003	0.01
tblVehicleEF	LHD2	3.4400e-004	9.9000e-005
tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	LHD2	1.3300e-004	1.2500e-004
tblVehicleEF	LHD2	6.5940e-003	6.6520e-003
tblVehicleEF	LHD2	2.3600e-004	6.5000e-005
tblVehicleEF	LHD2	5.3700e-004	6.8100e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.1700e-004	3.9000e-004
tblVehicleEF	LHD2	0.11	0.11
tblVehicleEF	LHD2	0.04	0.16
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	MCY	0.46	0.32
tblVehicleEF	MCY	0.16	0.25

tblVehicleEF	MCY	17.62	17.72
tblVehicleEF	MCY	10.32	9.18
tblVehicleEF	MCY	171.24	209.80
tblVehicleEF	MCY	43.13	59.44
tblVehicleEF	MCY	1.14	1.14
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1460e-003	2.1240e-003
tblVehicleEF	MCY	3.3780e-003	2.8870e-003
tblVehicleEF	MCY	2.0020e-003	1.9820e-003
tblVehicleEF	MCY	3.1630e-003	2.7020e-003
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.13	2.14
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.12	1.88
tblVehicleEF	MCY	2.0640e-003	2.0760e-003
tblVehicleEF	MCY	6.6200e-004	5.8800e-004
tblVehicleEF	MCY	0.88	1.79
tblVehicleEF	MCY	0.62	0.64
tblVehicleEF	MCY	0.47	0.95
tblVehicleEF	MCY	2.67	2.67
tblVehicleEF	MCY	0.48	1.55
tblVehicleEF	MCY	2.31	2.05
tblVehicleEF	MDV	5.5000e-003	1.9360e-003
tblVehicleEF	MDV	7.9330e-003	0.05
tblVehicleEF	MDV	0.71	0.57
tblVehicleEF	MDV	1.62	2.40
tblVehicleEF	MDV	367.51	309.06
tblVehicleEF	MDV	84.52	65.31

tblVehicleEF	MDV	0.08	0.04
tblVehicleEF	MDV	0.12	0.19
tblVehicleEF	MDV	1.4670e-003	1.1000e-003
tblVehicleEF	MDV	2.1720e-003	1.4190e-003
tblVehicleEF	MDV	1.3510e-003	1.0140e-003
tblVehicleEF	MDV	1.9970e-003	1.3050e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.01	7.6040e-003
tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.6760e-003	3.0540e-003
tblVehicleEF	MDV	8.7300e-004	6.4600e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.13	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.36
tblVehicleEF	MDV	0.12	0.24
tblVehicleEF	MH	0.01	5.5400e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.64	0.38
tblVehicleEF	MH	3.95	1.69
tblVehicleEF	MH	1,187.29	1,370.22
tblVehicleEF	MH	57.03	15.90
tblVehicleEF	MH	0.89	1.10
tblVehicleEF	MH	0.65	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.01	0.02

tblVehicleEF	MH	9.1300e-004	2.1800e-004
tblVehicleEF	MH	3.2210e-003	3.2950e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.4000e-004	2.0000e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3900e-004	1.5700e-004
tblVehicleEF	MH	0.50	0.38
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.19	0.15
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.01	0.64
tblVehicleEF	MH	0.26	0.08
tblVehicleEF	MHD	0.02	3.7880e-003
tblVehicleEF	MHD	2.8710e-003	1.0920e-003
tblVehicleEF	MHD	0.03	8.4000e-003
tblVehicleEF	MHD	0.37	0.40
tblVehicleEF	MHD	0.26	0.16
tblVehicleEF	MHD	3.91	0.89
tblVehicleEF	MHD	132.56	66.14
tblVehicleEF	MHD	1,170.12	1,006.37
tblVehicleEF	MHD	59.44	8.59
tblVehicleEF	MHD	0.34	0.35
tblVehicleEF	MHD	1.05	1.43
tblVehicleEF	MHD	10.04	1.69

tblVehicleEF	MHD	5.9000e-005	1.8700e-004
tblVehicleEF	MHD	3.0300e-003	7.0280e-003
tblVehicleEF	MHD	8.2100e-004	1.1100e-004
tblVehicleEF	MHD	5.6000e-005	1.7900e-004
tblVehicleEF	MHD	2.8920e-003	6.7170e-003
tblVehicleEF	MHD	7.5500e-004	1.0200e-004
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.24	0.04
tblVehicleEF	MHD	1.2770e-003	6.2800e-004
tblVehicleEF	MHD	0.01	9.6020e-003
tblVehicleEF	MHD	6.6300e-004	8.5000e-005
tblVehicleEF	MHD	6.5900e-004	2.9700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.8600e-004	1.7000e-004
tblVehicleEF	MHD	0.05	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	OBUS	0.01	7.0930e-003
tblVehicleEF	OBUS	4.3010e-003	2.3640e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.64
tblVehicleEF	OBUS	0.32	0.28
tblVehicleEF	OBUS	4.16	1.61
tblVehicleEF	OBUS	111.44	97.29

tblVehicleEF	OBUS	1,275.89	1,225.69
tblVehicleEF	OBUS	65.07	13.68
tblVehicleEF	OBUS	0.25	0.43
tblVehicleEF	OBUS	0.89	1.44
tblVehicleEF	OBUS	2.75	1.13
tblVehicleEF	OBUS	2.2000e-005	1.4100e-004
tblVehicleEF	OBUS	2.8900e-003	7.7790e-003
tblVehicleEF	OBUS	9.2700e-004	1.5500e-004
tblVehicleEF	OBUS	2.1000e-005	1.3500e-004
tblVehicleEF	OBUS	2.7430e-003	7.4280e-003
tblVehicleEF	OBUS	8.5200e-004	1.4200e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.26	0.08
tblVehicleEF	OBUS	1.0750e-003	9.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2400e-004	1.3500e-004
tblVehicleEF	OBUS	1.1670e-003	1.0700e-003
tblVehicleEF	OBUS	0.01	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	5.2900e-004	4.8800e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.03	0.18
tblVehicleEF	OBUS	0.29	0.09
tblVehicleEF	SBUS	0.81	0.07
tblVehicleEF	SBUS	8.9530e-003	4.6480e-003

tblVehicleEF	SBUS	0.06	6.0510e-003
tblVehicleEF	SBUS	8.77	2.81
tblVehicleEF	SBUS	0.56	0.39
tblVehicleEF	SBUS	7.85	0.83
tblVehicleEF	SBUS	1,034.78	339.74
tblVehicleEF	SBUS	1,014.13	984.83
tblVehicleEF	SBUS	61.18	4.88
tblVehicleEF	SBUS	4.86	2.86
tblVehicleEF	SBUS	1.94	3.38
tblVehicleEF	SBUS	10.92	1.12
tblVehicleEF	SBUS	2.7540e-003	2.2930e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	9.8310e-003	0.02
tblVehicleEF	SBUS	1.0690e-003	6.4000e-005
tblVehicleEF	SBUS	2.6350e-003	2.1940e-003
tblVehicleEF	SBUS	2.5930e-003	2.6780e-003
tblVehicleEF	SBUS	9.3860e-003	0.02
tblVehicleEF	SBUS	9.8300e-004	5.9000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003
tblVehicleEF	SBUS	1.04	0.31
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.07	0.06
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.41	0.03
tblVehicleEF	SBUS	0.01	3.2390e-003
tblVehicleEF	SBUS	9.7970e-003	9.4210e-003
tblVehicleEF	SBUS	7.4700e-004	4.8000e-005
tblVehicleEF	SBUS	3.6050e-003	7.9600e-004
tblVehicleEF	SBUS	0.03	7.6290e-003

tblVehicleEF	SBUS	1.51	0.45
tblVehicleEF	SBUS	1.7070e-003	3.7800e-004
tblVehicleEF	SBUS	0.09	0.08
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.45	0.04
tblVehicleEF	UBUS	0.23	1.86
tblVehicleEF	UBUS	0.05	2.0890e-003
tblVehicleEF	UBUS	3.18	14.11
tblVehicleEF	UBUS	7.55	0.14
tblVehicleEF	UBUS	1,951.30	1,668.67
tblVehicleEF	UBUS	123.95	1.40
tblVehicleEF	UBUS	5.24	0.71
tblVehicleEF	UBUS	13.19	0.01
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.11	5.1160e-003
tblVehicleEF	UBUS	1.3530e-003	1.5000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	8.3320e-003
tblVehicleEF	UBUS	0.11	4.8930e-003
tblVehicleEF	UBUS	1.2440e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005
tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.63	8.8270e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.3770e-003	1.4000e-005
tblVehicleEF	UBUS	2.4710e-003	4.9000e-005

tblVehicleEF	UBUS	0.04	6.0300e-004
tblVehicleEF	UBUS	1.4320e-003	2.8000e-005
tblVehicleEF	UBUS	0.51	1.90
tblVehicleEF	UBUS	8.7950e-003	3.0440e-003
tblVehicleEF	UBUS	0.69	9.6650e-003
tblVehicleTrips	ST_TR	6.39	4.02
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	1.77
tblVehicleTrips	SU_TR	5.86	3.68
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.75
tblVehicleTrips	WD_TR	6.65	4.18
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	7.93
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	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	69.00	0.00

tblWoodstoves	NumberNoncatalytic	69.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2989	2.9686	2.6861	5.3600e-003	0.6251	0.1315	0.7565	0.2411	0.1217	0.3627	0.0000	469.6110	469.6110	0.1420	0.0000	473.1610
2024	0.1928	1.7611	2.1179	3.5300e-003	0.0000	0.0803	0.0803	0.0000	0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
2025	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2026	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2027	0.1785	1.6273	2.0991	3.5200e-003	0.0000	0.0689	0.0689	0.0000	0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
2028	19.4635	0.5518	0.8558	1.3700e-003	0.0000	0.0255	0.0255	0.0000	0.0238	0.0238	0.0000	119.4348	119.4348	0.0330	0.0000	120.2593
Maximum	**19.4635**	**2.9686**	**2.6861**	**5.3600e-003**	**0.6251**	**0.1315**	**0.7565**	**0.2411**	**0.1217**	**0.3627**	**0.0000**	**469.6110**	**469.6110**	**0.1420**	**0.0000**	**473.1610**

Mitigated Construction

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

2023	0.0651	0.2963	3.1131	5.3600e-003	0.2438	8.6300e-003	0.2524	0.0470	8.6300e-003	0.0556	0.0000	469.6104	469.6104	0.1420	0.0000	473.1604
2024	0.0429	0.2928	2.2873	3.5300e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
2025	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2026	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2027	0.0428	0.2916	2.2786	3.5200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
2028	19.4188	0.0839	0.9792	1.3700e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	2.1600e-003	2.1600e-003	0.0000	119.4347	119.4347	0.0330	0.0000	120.2592
Maximum	**19.4188**	**0.2963**	**3.1131**	**5.3600e-003**	**0.2438**	**8.6300e-003**	**0.2524**	**0.0470**	**8.6300e-003**	**0.0556**	**0.0000**	**469.6104**	**469.6104**	**0.1420**	**0.0000**	**473.1604**

	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	**4.08**	**84.77**	**-10.52**	**0.00**	**61.00**	**92.77**	**74.19**	**80.50**	**92.27**	**87.95**	**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	**4-15-2023**	**7-14-2023**	0.9929	0.1109
2	**7-15-2023**	**10-14-2023**	1.3343	0.1354
3	**10-15-2023**	**1-14-2024**	1.0077	0.1275
4	**1-15-2024**	**4-14-2024**	0.4847	0.0833
5	**4-15-2024**	**7-14-2024**	0.4847	0.0833
6	**7-15-2024**	**10-14-2024**	0.4901	0.0842
7	**10-15-2024**	**1-14-2025**	0.4847	0.0842
8	**1-15-2025**	**4-14-2025**	0.4448	0.0824
9	**4-15-2025**	**7-14-2025**	0.4497	0.0833
10	**7-15-2025**	**10-14-2025**	0.4546	0.0842
11	**10-15-2025**	**1-14-2026**	0.4546	0.0842
12	**1-15-2026**	**4-14-2026**	0.4448	0.0824
13	**4-15-2026**	**7-14-2026**	0.4497	0.0833
14	**7-15-2026**	**10-14-2026**	0.4546	0.0842
15	**10-15-2026**	**1-14-2027**	0.4546	0.0842
16	**1-15-2027**	**4-14-2027**	0.4448	0.0824

17	**4-15-2027**	**7-14-2027**	0.4497	0.0833
18	**7-15-2027**	**10-14-2027**	0.4546	0.0842
19	**10-15-2027**	**1-14-2028**	0.4546	0.0842
20	**1-15-2028**	**4-14-2028**	0.3520	0.0593
21	**4-15-2028**	**7-14-2028**	9.2199	9.0796
22	**7-15-2028**	**9-30-2028**	10.3742	10.3511
		Highest	10.3742	10.3511

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	32.1300	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Energy	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	11,909.2835	11,909.2835	1.2910	0.3098	12,033.8850
Mobile	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0.0000	24,168.9251	24,168.9251	0.9775	0.0000	24,193.3618
Stationary	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Waste						0.0000	0.0000		0.0000	0.0000	970.0126	0.0000	970.0126	57.3261	0.0000	2,403.1652
Water						0.0000	0.0000		0.0000	0.0000	294.0308	606.2294	900.2601	1.0957	0.6567	1,123.3627
Total	**42.4612**	**21.2620**	**110.6339**	**0.2812**	**16.7902**	**0.6007**	**17.3909**	**4.8045**	**0.5883**	**5.3928**	**1,264.0434**	**36,905.2132**	**38,169.2566**	**60.7560**	**0.9666**	**39,976.1914**

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	31.3059	0.2957	25.6969	1.36E-03		0.1424	0.1424		0.1424	0.1424	0	42.0481	42.0481	0.0406	0	43.0631
Energy	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0	2,973.51	2,973.51	0.057	0.0545	2,991.18
Mobile	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0	24,168.93	24,168.93	0.9775	0	24,193.36
Stationary	0.3851	1.7222	0.982	1.85E-03		0.0567	0.0567		0.0567	0.0567	0	178.7272	178.7272	0.0251	0	179.3536
Waste						0	0		0	0	970.0126	0	970.0126	57.3261	0	2,403.17
Water						0	0		0	0	294.0308	606.2294	900.2601	1.0957	0.6567	1,123.36
Total	**41.6371**	**21.262**	**110.6339**	**0.2812**	**16.7902**	**0.6007**	**17.3909**	**4.8045**	**0.5883**	**5.3928**	**1,264.04**	**27,969.44**	**29,233.49**	**59.522**	**0.7113**	**30,933.49**

	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	**1.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**24.21**	**23.41**	**2.03**	**26.41**	**22.62**

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	4/15/2023	8/15/2023	5	87	
2	Site Preparation	Site Preparation	8/16/2023	9/16/2023	5	23	
3	Grading	Grading	9/17/2023	11/10/2023	5	40	
4	Trenching	Trenching	9/17/2023	11/10/2023	5	40	Overlapping with Grading
5	Building Construction	Building Construction	11/12/2023	2/11/2028	5	1110	
6	Paving	Paving	2/12/2028	5/26/2028	5	75	
7	Architectural Coating	Architectural Coating	5/27/2028	9/8/2028	5	75	

Acres of Grading (Site Preparation Phase): 23

Acres of Grading (Grading Phase): 180

Acres of Paving: 0

Residential Indoor: 6,986,250; Residential Outdoor: 2,328,750; Non-Residential Indoor: 5,140,200; Non-Residential Outdoor: 1,713,400;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	2	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	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
Demolition	10	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0984	0.0000	0.0984	0.0149	0.0000	0.0149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1267	1.2023	1.2874	2.3200e-003		0.0566	0.0566		0.0525	0.0525	0.0000	203.3039	203.3039	0.0593	0.0000	204.7874
Total	**0.1267**	**1.2023**	**1.2874**	**2.3200e-003**	**0.0984**	**0.0566**	**0.1550**	**0.0149**	**0.0525**	**0.0674**	**0.0000**	**203.3039**	**203.3039**	**0.0593**	**0.0000**	**204.7874**

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					0.0384	0.0000	0.0384	2.9100e-003	0.0000	2.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0278	0.1206	1.4888	2.3200e-003		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	203.3036	203.3036	0.0593	0.0000	204.7871
Total	**0.0278**	**0.1206**	**1.4888**	**2.3200e-003**	**0.0384**	**3.7100e-003**	**0.0421**	**2.9100e-003**	**3.7100e-003**	**6.6200e-003**	**0.0000**	**203.3036**	**203.3036**	**0.0593**	**0.0000**	**204.7871**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1547	0.0000	0.1547	0.0781	0.0000	0.0781	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.2886	0.1360	3.8000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**0.0263**	**0.2886**	**0.1360**	**3.8000e-004**	**0.1547**	**0.0117**	**0.1664**	**0.0781**	**0.0108**	**0.0888**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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					0.0603	0.0000	0.0603	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7100e-003	0.0204	0.1835	3.8000e-004		6.3000e-004	6.3000e-004		6.3000e-004	6.3000e-004	0.0000	33.7734	33.7734	0.0109	0.0000	34.0465
Total	**4.7100e-003**	**0.0204**	**0.1835**	**3.8000e-004**	**0.0603**	**6.3000e-004**	**0.0610**	**0.0152**	**6.3000e-004**	**0.0159**	**0.0000**	**33.7734**	**33.7734**	**0.0109**	**0.0000**	**34.0465**

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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3720	0.0000	0.3720	0.1481	0.0000	0.1481	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1048	1.1025	0.7589	1.8500e-003		0.0449	0.0449		0.0413	0.0413	0.0000	162.8769	162.8769	0.0527	0.0000	164.1939
Total	**0.1048**	**1.1025**	**0.7589**	**1.8500e-003**	**0.3720**	**0.0449**	**0.4168**	**0.1481**	**0.0413**	**0.1894**	**0.0000**	**162.8769**	**162.8769**	**0.0527**	**0.0000**	**164.1939**

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					0.1451	0.0000	0.1451	0.0289	0.0000	0.0289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.0986	0.8849	1.8500e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	162.8767	162.8767	0.0527	0.0000	164.1937
Total	**0.0228**	**0.0986**	**0.8849**	**1.8500e-003**	**0.1451**	**3.0300e-003**	**0.1481**	**0.0289**	**3.0300e-003**	**0.0319**	**0.0000**	**162.8767**	**162.8767**	**0.0527**	**0.0000**	**164.1937**

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 - 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	0.0136	0.1234	0.2196	3.3000e-004		6.0600e-003	6.0600e-003		5.5800e-003	5.5800e-003	0.0000	29.0910	29.0910	9.4100e-003	0.0000	29.3262
Total	**0.0136**	**0.1234**	**0.2196**	**3.3000e-004**		**6.0600e-003**	**6.0600e-003**		**5.5800e-003**	**5.5800e-003**	**0.0000**	**29.0910**	**29.0910**	**9.4100e-003**	**0.0000**	**29.3262**

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	4.0600e-003	0.0176	0.2504	3.3000e-004		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	29.0909	29.0909	9.4100e-003	0.0000	29.3261
Total	**4.0600e-003**	**0.0176**	**0.2504**	**3.3000e-004**		**5.4000e-004**	**5.4000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**29.0909**	**29.0909**	**9.4100e-003**	**0.0000**	**29.3261**

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	0.0275	0.2517	0.2843	4.7000e-004		0.0123	0.0123		0.0115	0.0115	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8071
Total	**0.0275**	**0.2517**	**0.2843**	**4.7000e-004**		**0.0123**	**0.0123**		**0.0115**	**0.0115**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8071**

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	5.7400e-003	0.0391	0.3056	4.7000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	40.5658	40.5658	9.6500e-003	0.0000	40.8070
Total	**5.7400e-003**	**0.0391**	**0.3056**	**4.7000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**40.5658**	**40.5658**	**9.6500e-003**	**0.0000**	**40.8070**

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 - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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 - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2027

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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 - 2028

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	0.0205	0.1871	0.2413	4.0000e-004		7.9100e-003	7.9100e-003		7.4400e-003	7.4400e-003	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9924
Total	**0.0205**	**0.1871**	**0.2413**	**4.0000e-004**		**7.9100e-003**	**7.9100e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9924**

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	4.9200e-003	0.0335	0.2619	4.0000e-004		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	34.7879	34.7879	8.1800e-003	0.0000	34.9923
Total	**4.9200e-003**	**0.0335**	**0.2619**	**4.0000e-004**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**34.7879**	**34.7879**	**8.1800e-003**	**0.0000**	**34.9923**

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 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3218	0.5467	8.5000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	75.0722	75.0722	0.0243	0.0000	75.6792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0343**	**0.3218**	**0.5467**	**8.5000e-004**		**0.0157**	**0.0157**		**0.0144**	**0.0144**	**0.0000**	**75.0722**	**75.0722**	**0.0243**	**0.0000**	**75.6792**

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	0.0105	0.0456	0.6486	8.5000e-004		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003	0.0000	75.0721	75.0721	0.0243	0.0000	75.6791
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0456**	**0.6486**	**8.5000e-004**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**	**0.0000**	**75.0721**	**75.0721**	**0.0243**	**0.0000**	**75.6791**

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 Architectural Coating - 2028

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	19.4023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4100e-003	0.0430	0.0678	1.1000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**19.4087**	**0.0430**	**0.0678**	**1.1000e-004**		**1.9300e-003**	**1.9300e-003**		**1.9300e-003**	**1.9300e-003**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	19.4023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	4.8300e-003	0.0687	1.1000e-004		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	9.5747	9.5747	5.2000e-004	0.0000	9.5878
Total	**19.4034**	**4.8300e-003**	**0.0687**	**1.1000e-004**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**9.5747**	**9.5747**	**5.2000e-004**	**0.0000**	**9.5878**

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	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0.0000	24,168.9251	24,168.9251	0.9775	0.0000	24,193.3618
Unmitigated	9.6456	16.5126	81.6607	0.2616	16.7902	0.1941	16.9842	4.8045	0.1817	4.9862	0.0000	24,168.9251	24,168.9251	0.9775	0.0000	24,193.3618

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,421.00	13,869.00	12696.00	32,555,565	32,555,565
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	26,962.00	6,018.00	2550.00	48,948,283	48,948,283
Strip Mall	1,187.78	1,126.67	547.52	1,674,913	1,674,913
Total	42,570.78	21,013.67	15,793.52	83,178,760	83,178,760

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
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
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	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
City Park	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Enclosed Parking with Elevator	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
General Office Building	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730
Strip Mall	0.595213	0.053840	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.000730

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	8,935.7712	8,935.7712	1.2340	0.2553	9,042.7026
NaturalGas Mitigated	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	2,973.5123	2,973.5123	0.0570	0.0545	2,991.1824
NaturalGas Unmitigated	0.3005	2.7315	2.2944	0.0164		0.2076	0.2076		0.2076	0.2076	0.0000	2,973.5123	2,973.5123	0.0570	0.0545	2,991.1824

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	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
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
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	5.5658e+007	0.3001	2.7283	2.2918	0.0164		0.2074	0.2074		0.2074	0.2074	0.0000	2,970.1228	2,970.1228	0.0569	0.0545	2,987.7728
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.3005**	**2.7314**	**2.2944**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**	**0.0000**	**2,973.5123**	**2,973.5123**	**0.0570**	**0.0545**	**2,991.1824**

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	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
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
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	5.5658e+007	0.3001	2.7283	2.2918	0.0164		0.2074	0.2074		0.2074	0.2074	0.0000	2,970.1228	2,970.1228	0.0569	0.0545	2,987.7728
Strip Mall	63516	3.4000e-004	3.1100e-003	2.6200e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.3895	3.3895	6.0000e-005	6.0000e-005	3.4096
Total		**0.3005**	**2.7314**	**2.2944**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**	**0.0000**	**2,973.5123**	**2,973.5123**	**0.0570**	**0.0545**	**2,991.1824**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.42428e+007	1,356.6901	0.1874	0.0388	1,372.9251
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.86582e+007	1,777.2794	0.2454	0.0508	1,798.5475
General Office Building	6.0622e+007	5,774.5121	0.7974	0.1650	5,843.6138
Strip Mall	286492	27.2896	3.7700e-003	7.8000e-004	27.6162
Total		**8,935.7712**	**1.2340**	**0.2553**	**9,042.7026**

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
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
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

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	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	31.3059	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Unmitigated	32.1300	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631

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	4.2819					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.0701					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	0.7780	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Total	**32.1300**	**0.2957**	**25.6969**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0481**	**42.0481**	**0.0406**	**0.0000**	**43.0631**

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	3.4578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.0701					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	0.7780	0.2957	25.6969	1.3600e-003		0.1424	0.1424		0.1424	0.1424	0.0000	42.0481	42.0481	0.0406	0.0000	43.0631
Total	**31.3059**	**0.2957**	**25.6969**	**1.3600e-003**		**0.1424**	**0.1424**		**0.1424**	**0.1424**	**0.0000**	**42.0481**	**42.0481**	**0.0406**	**0.0000**	**43.0631**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	900.2601	1.0957	0.6567	1,123.3627
Unmitigated	900.2601	1.0957	0.6567	1,123.3627

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	604.295 / 370.374	648.7462	0.7959	0.4774	810.9019
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**900.2601**	**1.0957**	**0.6567**	**1,123.3627**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	224.781 / 141.71	242.6299	0.2963	0.1776	302.9632
City Park	0 / 20.2552	6.7529	9.3000e-004	1.9000e-004	6.8337
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	604.295 / 370.374	648.7462	0.7959	0.4774	810.9019
Strip Mall	1.98514 / 1.2167	2.1312	2.6100e-003	1.5700e-003	2.6639
Total		**900.2601**	**1.0957**	**0.6567**	**1,123.3627**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	970.0126	57.3261	0.0000	2,403.1652
Unmitigated	970.0126	57.3261	0.0000	2,403.1652

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3162	641.8574	37.9327	0.0000	1,590.1746
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517

Total		**970.0126**	**57.3261**	**0.0000**	**2,403.1652**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1587	322.1467	19.0383	0.0000	798.1047
City Park	1.46	0.2964	0.0175	0.0000	0.7342
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	3162	641.8574	37.9327	0.0000	1,590.1746
Strip Mall	28.14	5.7122	0.3376	0.0000	14.1517
Total		**970.0126**	**57.3261**	**0.0000**	**2,403.1652**

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
Emergency Generator	7	0	50	1341	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.3851	1.7222	0.9820	1.8500e-003		0.0567	0.0567		0.0567	0.0567	0.0000	178.7272	178.7272	0.0251	0.0000	179.3536
Total	**0.3851**	**1.7222**	**0.9820**	**1.8500e-003**		**0.0567**	**0.0567**		**0.0567**	**0.0567**	**0.0000**	**178.7272**	**178.7272**	**0.0251**	**0.0000**	**179.3536**

11.0 Vegetation

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

Flea Market Project - 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											
2023	0.763	6.218	9.056	0.046	3.135	0.645	3.780	0.472	0.281	0.752	4,506
2024	1.005	8.653	12.073	0.064	4.396	0.904	5.300	0.662	0.393	1.055	6,173
2025	0.947	8.536	11.497	0.063	4.384	0.901	5.285	0.660	0.392	1.051	6,003
2026	0.898	8.438	11.049	0.061	4.384	0.900	5.284	0.660	0.391	1.050	5,859
2027	0.855	8.337	10.668	0.060	4.384	0.899	5.283	0.660	0.389	1.049	5,718
2028	0.564	5.698	7.145	0.041	3.027	0.620	3.647	0.455	0.268	0.723	3,856
Toxic Air Contaminants (1 Mile Trip Length)											
2023	0.652	2.083	3.517	0.007	0.308	0.070	0.378	0.046	0.031	0.078	663
2024	0.864	2.893	4.791	0.009	0.433	0.097	0.530	0.065	0.044	0.109	911
2025	0.818	2.857	4.641	0.009	0.431	0.097	0.528	0.065	0.044	0.108	888
2026	0.779	2.830	4.520	0.009	0.431	0.097	0.528	0.065	0.043	0.108	869
2027	0.745	2.806	4.414	0.008	0.431	0.097	0.528	0.065	0.043	0.108	849
2028	0.493	1.923	2.984	0.006	0.298	0.067	0.364	0.045	0.030	0.075	573

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	25	0	2,175	0	5,458	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	23,490	0	109,160
Site Preparation	13	0	299	0	8,750	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3,229	0	175,000
Grading	23	0	920	0	78,750	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	9,936	0	1,575,000
Trenching	10	0	400	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	4,320	0	0
Building Construction	4,845	1,377	5,377,950	1,528,470	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	58,081,860	11,157,831	0
Paving	15	0	1,125	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	12,150	0	0
Architectural Coating	969	0	72,675	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	784,890	0	0

Number of Days Per Year				
2023	4/15/23	12/31/23	261	
2024	1/1/24	12/31/24	365	
2025	1/1/25	12/31/25	365	
2026	1/1/26	12/31/26	365	
2027	1/1/27	12/31/27	365	
2028	1/1/28	9/8/2028	252	
			1973	**1410** ***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	4/15/2023	8/15/2023	5	87
Site Preparation	9/16/2023	9/16/2023	5	23
Grading	9/17/2023	11/10/2023	5	40
Trenching	9/17/2023	11/10/2023	5	40
Building Construction	11/12/2023	2/11/2028	5	1110
Paving	2/12/2028	5/26/2028	5	75
Architectural Coating	5/27/2028	9/8/2028	5	75

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	87832.98	5705607.84	1325779.9	25376.161	555888.84	225398.42	781287.3	83643.61	109165.82	192809.43	2770050484
Vendor	775781.74	33308589.38	10765757.5	145208.836	3336191.47	1472933.95	4809125.4	501990.82	685625.74	1187616.55	15651353093
Worker	4370910.85	3648642.91	50043586.1	147275.416	17617042.68	2728207.42	20345250.1	2650805.19	1130114.46	3780919.65	15655122143
Total (g)	5234525.57	42662840.14	62135124	317860.4123	21509122.99	4426539.793	25935663	3236439.61	1924906.026	5161345.636	34076525720
Total (lbs)	11540.15	94055.46	136984.50	700.76	47419.50	9758.8	57178.35	7135.13	4243.69	11378.82	75125879.48
Total (tons)	5.7701	47.028	68.492	0.350	23.710	4.8794	28.5892	3.5676	2.122	5.689	37562.94
Total (MT)											34076.53

YEAR											
						Tons					
	2023	0.7633	6.2211	9.0606	0.0464	3.1365	0.6455	3.7819	0.4719	0.2807	0.7526	4507.8425
	2024										
	2025										
	2026										
	2027										
	2028										

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

*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

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	87594.48	5711240.32	1335389.8	24966.262	555888.84	225980.58	781869.4	83643.61	109666.09	193309.70	2726164681
Vendor	761369.27	33346028.78	10653326.2	143077.788	3336191.47	1474802.79	4810994.3	501990.82	687565.47	1189556.28	15424795073
Worker	4070130.41	3281500.19	47084531.0	144533.232	17617042.68	2724358.17	20341400.9	2650805.19	1126560.39	3777365.57	15142394115
Total (g)	4919094.15	42338769.29	59073247	312577.2826	21509122.99	4425141.533	25934265	3236439.61	1923791.945	5160231.555	33293353870
Total (lbs)	10844.75	93341.01	130234.22	689.11	47419.50	9755.8	57175.27	7135.13	4241.24	11376.36	73399281.1
Total (tons)	5.4224	46.671	65.117	0.345	23.710	4.8779	28.5876	3.5676	2.121	5.688	36699.64
Total (MT)											33293.35

YEAR											
						Tons					
	2023										
	2024	1.0054	8.6532	12.0734	0.0639	4.3960	0.9044	5.3004	0.6615	0.3932	1.0546	6172.9319
	2025										
	2026										
	2027										
	2028										

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

*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

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	87112.15	5676923.88	1341790.4	24476.418	555888.84	226048.25	781937.1	83643.61	109678.00	193321.61	2673652922
Vendor	748944.69	33224613.21	10565118.8	140608.408	3336191.47	1474666.66	4810858.1	501990.82	687589.54	1189580.36	15161712795
Worker	3809585.43	2980148.66	44501532.8	141797.145	17617042.68	2721040.31	20338083.0	2650805.19	1123499.74	3774304.92	14629397516
Total (g)	4645642.27	41881685.75	56408442	306881.9707	21509122.99	4421755.227	25930878	3236439.61	1920767.282	5157206.892	32464763233
Total (lbs)	10241.89	92333.31	124359.33	676.56	47419.50	9748.3	57167.80	7135.13	4234.57	11369.69	71572551.44
Total (tons)	5.1209	46.167	62.180	0.338	23.710	4.8742	28.5839	3.5676	2.117	5.685	35786.28
Total (MT)											32464.76

YEAR											
						Tons					
	2023										
	2024										
	2025	0.9469	8.5364	11.4973	0.0625	4.3840	0.9012	5.2853	0.6597	0.3915	1.0511	6002.8564
	2026										
	2027										
	2028										

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

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	86502.25	5628664.63	1345715.6	23968.138	555888.84	225870.70	781759.5	83643.61	109458.81	193102.41	2618939572
Vendor	738074.38	33032745.74	10495284.0	138071.188	3336191.47	1473397.67	4809589.1	501990.82	686568.80	1188559.62	14890520208
Worker	3583228.38	2738368.06	42368774.6	139365.867	17617042.68	2717466.84	20334509.5	2650805.19	1120203.49	3771008.67	14179048073
Total (g)	4407805.00	41399778.43	54209774	301405.1934	21509122.99	4416735.204	25925858	3236439.61	1916231.098	5152670.708	31688507853
Total (lbs)	9717.55	91270.89	119512.09	664.48	47419.50	9737.2	57156.73	7135.13	4224.57	11359.69	69861201.27
Total (tons)	4.8588	45.635	59.756	0.332	23.710	4.8686	28.5784	3.5676	2.112	5.680	34930.60
Total (MT)											31688.51

YEAR											
						Tons					
	2023										
	2024										
	2025										
	2026	0.8984	8.4382	11.0491	0.0614	4.3840	0.9002	5.2842	0.6597	0.3906	1.0502	5859.3239
	2027										
	2028										

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles					
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust
NA	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005
2022	1.0004	1.0003	1.0004	1.0018	1.0014
2023	1.0007	1.0006	1.0007	1.0032	1.0027
2024	1.0012	1.0010	1.0011	1.0051	1.0044
2025	1.0018	1.0016	1.0016	1.0074	1.0065
2026	1.0023	1.0022	1.0020	1.0091	1.0083
2027	1.0028	1.0028	1.0024	1.0105	1.0102
2028	1.0034	1.0035	1.0028	1.0117	1.0120
2029	1.0040	1.0042	1.0032	1.0129	1.0138
2030	1.0047	1.0051	1.0037	1.0142	1.0156
2031	1.0054	1.0061	1.0042	1.0155	1.0173
2032	1.0061	1.0072	1.0047	1.0169	1.0189
2033	1.0068	1.0083	1.0052	1.0182	1.0204
2034	1.0075	1.0095	1.0058	1.0196	1.0218
2035	1.0081	1.0108	1.0063	1.0210	1.0232
2036	1.0088	1.0121	1.0069	1.0223	1.0244
2037	1.0094	1.0134	1.0074	1.0236	1.0255
2038	1.0099	1.0148	1.0079	1.0248	1.0265
2039	1.0104	1.0161	1.0085	1.0259	1.0274
2040	1.0109	1.0174	1.0090	1.0270	1.0281
2041	1.0113	1.0186	1.0095	1.0279	1.0288
2042	1.0116	1.0198	1.0099	1.0286	1.0294
2043	1.0119	1.0207	1.0103	1.0293	1.0299
2044	1.0122	1.0216	1.0106	1.0299	1.0303
2045	1.0124	1.0225	1.0109	1.0303	1.0306
2046	1.0125	1.0233	1.0111	1.0308	1.0309
2047	1.0127	1.0240	1.0113	1.0311	1.0311
2048	1.0128	1.0246	1.0115	1.0314	1.0313
2049	1.0128	1.0252	1.0116	1.0316	1.0315
2050	1.0129	1.0257	1.0117	1.0318	1.0316
Enter Year: 2026	**1.0023**	**1.0022**	**1.002**	**1.0091**	**1.0083**

*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

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	85883.24	5570662.06	1346147.5	23420.839	555888.84	225580.97	781469.8	83643.61	109135.91	192779.52	2559362581
Vendor	728843.00	32793383.92	10431103.7	135305.246	3336191.47	1471700.09	4807891.6	500986.61	685093.79	1186080.40	14592376445
Worker	3382187.48	2538005.73	40564254.1	136788.935	17617042.68	2713309.58	20330352.3	2650805.19	1116370.33	3767175.52	13772527128
Total (g)	4196913.73	40902051.71	52341505	295515.02	21509122.99	4410590.641	25919714	3235435.406	1910600.036	5146035.441	30924266154
Total (lbs)	9252.61	90173.59	115393.27	651.50	47419.50	9723.7	57143.19	7132.91	4212.15	11345.07	68176336.73
Total (tons)	4.6263	45.087	57.697	0.326	23.710	4.8618	28.5716	3.5665	2.106	5.673	34088.17
Total (MT)											30924.27

YEAR											
						Tons					
	2023										
	2024										
	2025										
	2026										
	2027	0.8554	8.3367	10.6683	0.0602	4.3840	0.8990	5.2830	0.6595	0.3894	1.0489	5718.0127
	2028										

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

*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

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	85318.28	5520112.67	1346784.6	22872.495	555888.84	225228.86	781117.7	83643.61	108754.38	192397.99	2499725726
Vendor	721581.90	32596351.16	10387508.3	132589.598	3336191.47	1469907.09	4806098.6	501990.82	683483.83	1185474.65	14299508792
Worker	3201401.40	2373515.75	39042474.8	134513.011	17617042.68	2708734.92	20325777.6	2650805.19	1112156.54	3762961.72	13409313596
Total (g)	4008301.58	40489979.59	50776768	289975.1035	21509122.99	4403870.871	25912994	3236439.61	1904394.755	5140834.365	30208548113
Total (lbs)	8836.79	89265.12	111943.61	639.29	47419.50	9708.9	57128.37	7135.13	4198.47	11333.60	66598448.54
Total (tons)	4.4184	44.633	55.972	0.320	23.710	4.8544	28.5642	3.5676	2.099	5.667	33299.22
Total (MT)											30208.55

YEAR											
						Tons					
	2023										
	2024										
	2025										
	2026										
	2027										
	2028	0.5641	5.6978	7.1453	0.0408	3.0268	0.6197	3.6465	0.4554	0.2680	0.7234	3856.4104

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles					
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust
NA	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005
2022	1.0004	1.0003	1.0004	1.0018	1.0014
2023	1.0007	1.0006	1.0007	1.0032	1.0027
2024	1.0012	1.0010	1.0011	1.0051	1.0044
2025	1.0018	1.0016	1.0016	1.0074	1.0065
2026	1.0023	1.0022	1.0020	1.0091	1.0083
2027	1.0028	1.0028	1.0024	1.0105	1.0102
2028	1.0034	1.0035	1.0028	1.0117	1.0120
2029	1.0040	1.0042	1.0032	1.0129	1.0138
2030	1.0047	1.0051	1.0037	1.0142	1.0156
2031	1.0054	1.0061	1.0042	1.0155	1.0173
2032	1.0061	1.0072	1.0047	1.0169	1.0189
2033	1.0068	1.0083	1.0052	1.0182	1.0204
2034	1.0075	1.0095	1.0058	1.0196	1.0218
2035	1.0081	1.0108	1.0063	1.0210	1.0232
2036	1.0088	1.0121	1.0069	1.0223	1.0244
2037	1.0094	1.0134	1.0074	1.0236	1.0255
2038	1.0099	1.0148	1.0079	1.0248	1.0265
2039	1.0104	1.0161	1.0085	1.0259	1.0274
2040	1.0109	1.0174	1.0090	1.0270	1.0281
2041	1.0113	1.0186	1.0095	1.0279	1.0288
2042	1.0116	1.0198	1.0099	1.0286	1.0294
2043	1.0119	1.0207	1.0103	1.0293	1.0299
2044	1.0122	1.0216	1.0106	1.0299	1.0303
2045	1.0124	1.0225	1.0109	1.0303	1.0306
2046	1.0125	1.0233	1.0111	1.0308	1.0309
2047	1.0127	1.0240	1.0113	1.0311	1.0311
2048	1.0128	1.0246	1.0115	1.0314	1.0313
2049	1.0128	1.0252	1.0116	1.0316	1.0315
2050	1.0129	1.0257	1.0117	1.0318	1.0316
Enter Year: 2028	**1.0034**	**1.0035**	**1.0028**	**1.0117**	**1.012**

*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

CalEEMod EMFAC2017 Emission Factors Input — Year 2029

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004263	0.002574	0.003788	0.024335337	0.007093	0	0	0.067171	0
A	CH4_RUNEX	0.001036	0.00188	0.001867	0.001936	0.005589	0.005464	0.001092	0.046015331	0.002364	1.859484	0.319805	0.004648	0.00554
A	CH4_STREX	0.030745	0.037911	0.044399	0.046995	0.009696	0.005165	0.0084	4.37828E-07	0.015423	0.002089	0.24865	0.006051	0.019933
A	CO_IDLEX	0	0	0	0	0.178157	0.132545	0.402833	6.291949096	0.638605	0	0	2.806707	0
A	CO_RUNEX	0.422068	0.574499	0.579098	0.574148	0.510146	0.497219	0.159245	0.406458288	0.282463	14.1104	17.7187	0.390582	0.383765
A	CO_STREX	1.763413	1.899626	2.342156	2.395302	0.917968	0.496357	0.889969	0.006540682	1.611484	0.139137	9.180114	0.827602	1.685695
A	CO2_NBIO_IDLEX	0	0	0	0	8.347907	13.1385	66.14361	949.5511078	97.29473	0	0	339.7435	0
A	CO2_NBIO_RUNEX	204.0596	246.4149	256.3905	309.0592	709.3951	689.5425	1006.366	1256.797437	1225.693	1668.673	209.7954	984.8338	1370.216
A	CO2_NBIO_STREX	43.1381	52.69984	55.32454	65.31384	10.31755	6.585843	8.593855	0.050624129	13.68187	1.400504	59.44023	4.879396	15.89676
A	NOX_IDLEX	0	0	0	0	0.047484	0.076976	0.350581	5.225230822	0.42716	0	0	2.859497	0
A	NOX_RUNEX	0.02016	0.037289	0.037252	0.03905	0.341795	0.428208	1.43272	2.536151928	1.443234	0.70601	1.138391	3.375263	1.095984
A	NOX_STREX	0.129319	0.157963	0.177552	0.190618	0.235497	0.130869	1.692152	2.316911992	1.126187	0.014498	0.270331	1.120632	0.237279
A	PM10_IDLEX	0	0	0	0	0.000905	0.001494	0.000187	0.0022064	0.000141	0	0	0.002293	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.061087119	0.13034	0.069383	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009886	0.010835	0.012	0.035608276	0.012	0.033326	0.004	0.010711	0.013181
A	PM10_RUNEX	0.000992	0.001152	0.001084	0.0011	0.007363	0.013967	0.007028	0.023980699	0.007779	0.005116	0.002124	0.022832	0.017002
A	PM10_STREX	0.001349	0.001558	0.001411	0.001419	0.000217	0.000108	0.000111	5.67264E-07	0.000155	1.52E-05	0.002887	6.39E-05	0.000218
A	PM25_IDLEX	0	0	0	0	0.000866	0.001429	0.000179	0.002110952	0.000135	0	0	0.002194	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026180194	0.05586	0.029736	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002472	0.002709	0.003	0.008902069	0.003	0.008332	0.001	0.002678	0.003295
A	PM25_RUNEX	0.000913	0.00106	0.000998	0.001014	0.006999	0.013339	0.006717	0.022943275	0.007428	0.004893	0.001982	0.021828	0.016229
A	PM25_STREX	0.00124	0.001433	0.001297	0.001305	0.000199	9.94E-05	0.000102	5.21578E-07	0.000142	1.4E-05	0.002702	5.88E-05	0.0002
A	ROG_DIURN	0.026312	0.050288	0.050785	0.058806	0.001489	0.000681	0.000297	1.36606E-06	0.00107	4.87E-05	1.788816	0.000796	0.383898
A	ROG_HTSK	0.064838	0.100636	0.093447	0.102109	0.057003	0.026109	0.01426	5.97058E-05	0.0157	0.000603	0.638017	0.007629	0.031944
A	ROG_IDLEX	0	0	0	0	0.017795	0.013724	0.018379	0.42287075	0.049775	0	0	0.309465	0
A	ROG_RESTL	0.024122	0.044028	0.050179	0.05811	0.000808	0.00039	0.00017	8.06573E-07	0.000488	2.77E-05	0.950624	0.000378	0.151075
A	ROG_RUNEX	0.003559	0.007443	0.007157	0.007604	0.075031	0.099206	0.012226	0.024234667	0.01757	0.026969	2.135272	0.064505	0.041758
A	ROG_RUNLS	0.173981	0.391549	0.350365	0.355362	0.434675	0.155025	0.07454	0.000295526	0.181777	0.003044	1.549578	0.04949	0.642672
A	ROG_STREX	0.127354	0.168251	0.195593	0.215436	0.047634	0.024685	0.041831	2.28653E-06	0.077908	0.008827	1.88457	0.034377	0.076745
A	SO2_IDLEX	0	0	0	0	8.09E-05	0.000125	0.000628	0.00883332	0.000924	0	0	0.003239	0
A	SO2_RUNEX	9.08E-05	0.002581	0.009602	0.003054	0.006919	0.006652	0.009602	0.011489512	0.011793	0.010417	0.002076	0.009421	0.013439
A	SO2_STREX	0	0	8.5E-05	0.000646	0.000102	6.52E-05	8.5E-05	5.00967E-07	0.000135	1.39E-05	0.000588	4.83E-05	0.000157
A	TOG_DIURN	0.026312	0.050288	0.050785	0.058806	0.001489	0.000681	0.000297	1.36606E-06	0.00107	4.87E-05	1.788816	0.000796	0.383898
A	TOG_HTSK	0.064838	0.100636	0.093447	0.102109	0.057003	0.026109	0.01426	5.97058E-05	0.0157	0.000603	0.638017	0.007629	0.031944
A	TOG_IDLEX	0	0	0	0	0.024809	0.018158	0.025128	0.486125876	0.063524	0	0	0.445033	0
A	TOG_RESTL	0.024122	0.044028	0.050179	0.05811	0.000808	0.00039	0.00017	8.06573E-07	0.000488	2.77E-05	0.950624	0.000378	0.151075
A	TOG_RUNEX	0.005171	0.010859	0.010405	0.011026	0.089155	0.114248	0.014817	0.072763798	0.022789	1.898202	2.672508	0.076721	0.052367
A	TOG_RUNLS	0.173981	0.391549	0.350365	0.355362	0.434675	0.155025	0.07454	0.000295526	0.181777	0.003044	1.549578	0.04949	0.642672
A	TOG_STREX	0.139437	0.184214	0.21415	0.235875	0.052153	0.027026	0.0458	2.50346E-06	0.085299	0.009665	2.052265	0.037638	0.084026

CalEEMod EMFAC2017 Fleet Mix Input — Year 2029

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.595213	0.05384	0.171972	0.106418	0.021004	0.005519	0.013626	0.023297	0.001459	0.001189	0.004828	0.000904	0.00073

Adjustment Factors for EMFAC2017 Gasoline Light Duty Vehicles					
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust
NA	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005
2022	1.0004	1.0003	1.0004	1.0018	1.0014
2023	1.0007	1.0006	1.0007	1.0032	1.0027
2024	1.0012	1.0010	1.0011	1.0051	1.0044
2025	1.0018	1.0016	1.0016	1.0074	1.0065
2026	1.0023	1.0022	1.0020	1.0091	1.0083
2027	1.0028	1.0028	1.0024	1.0105	1.0102
2028	1.0034	1.0035	1.0028	1.0117	1.0120
2029	1.0040	1.0042	1.0032	1.0129	1.0138
2030	1.0047	1.0051	1.0037	1.0142	1.0156
2031	1.0054	1.0061	1.0042	1.0155	1.0173
2032	1.0061	1.0072	1.0047	1.0169	1.0189
2033	1.0068	1.0083	1.0052	1.0182	1.0204
2034	1.0075	1.0095	1.0058	1.0196	1.0218
2035	1.0081	1.0108	1.0063	1.0210	1.0232
2036	1.0088	1.0121	1.0069	1.0223	1.0244
2037	1.0094	1.0134	1.0074	1.0236	1.0255
2038	1.0099	1.0148	1.0079	1.0248	1.0265
2039	1.0104	1.0161	1.0085	1.0259	1.0274
2040	1.0109	1.0174	1.0090	1.0270	1.0281
2041	1.0113	1.0186	1.0095	1.0279	1.0288
2042	1.0116	1.0198	1.0099	1.0286	1.0294
2043	1.0119	1.0207	1.0103	1.0293	1.0299
2044	1.0122	1.0216	1.0106	1.0299	1.0303
2045	1.0124	1.0225	1.0109	1.0303	1.0306
2046	1.0125	1.0233	1.0111	1.0308	1.0309
2047	1.0127	1.0240	1.0113	1.0311	1.0311
2048	1.0128	1.0246	1.0115	1.0314	1.0313
2049	1.0128	1.0252	1.0116	1.0316	1.0315
2050	1.0129	1.0257	1.0117	1.0318	1.0316
Enter Year: **2029**	**1.004**	**1.0042**	**1.0032**	**1.0129**	**1.0138**

*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

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	199.8584	241.4555	249.7974	301.1272	698.5465	679.813	993.4479	1226.348086	1210.85	1668.671	209.7572	970.5049	1350.267
A	CO2_NBIO_STREX	42.16672	51.55301	53.79124	63.46105	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

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
NA	1	1	1	1	1
2021	1.0002	1.0001	1.0002	1.0009	1.0005
2022	1.0004	1.0003	1.0004	1.0018	1.0014
2023	1.0007	1.0006	1.0007	1.0032	1.0027
2024	1.0012	1.0010	1.0011	1.0051	1.0044
2025	1.0018	1.0016	1.0016	1.0074	1.0065
2026	1.0023	1.0022	1.0020	1.0091	1.0083
2027	1.0028	1.0028	1.0024	1.0105	1.0102
2028	1.0034	1.0035	1.0028	1.0117	1.0120
2029	1.0040	1.0042	1.0032	1.0129	1.0138
2030	1.0047	1.0051	1.0037	1.0142	1.0156
2031	1.0054	1.0061	1.0042	1.0155	1.0173
2032	1.0061	1.0072	1.0047	1.0169	1.0189
2033	1.0068	1.0083	1.0052	1.0182	1.0204
2034	1.0075	1.0095	1.0058	1.0196	1.0218
2035	1.0081	1.0108	1.0063	1.0210	1.0232
2036	1.0088	1.0121	1.0069	1.0223	1.0244
2037	1.0094	1.0134	1.0074	1.0236	1.0255
2038	1.0099	1.0148	1.0079	1.0248	1.0265
2039	1.0104	1.0161	1.0085	1.0259	1.0274
2040	1.0109	1.0174	1.0090	1.0270	1.0281
2041	1.0113	1.0186	1.0095	1.0279	1.0288
2042	1.0116	1.0198	1.0099	1.0286	1.0294
2043	1.0119	1.0207	1.0103	1.0293	1.0299
2044	1.0122	1.0216	1.0106	1.0299	1.0303
2045	1.0124	1.0225	1.0109	1.0303	1.0306
2046	1.0125	1.0233	1.0111	1.0308	1.0309
2047	1.0127	1.0240	1.0113	1.0311	1.0311
2048	1.0128	1.0246	1.0115	1.0314	1.0313
2049	1.0128	1.0252	1.0116	1.0316	1.0315
2050	1.0129	1.0257	1.0117	1.0318	1.0316
Enter Year: 2030	**1.0047**	**1.0051**	**1.0037**	**1.0142**	**1.0156**

*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

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2023, 2024, 2025, 2026, 2027, 2028
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 Yea	Vehicle Categor	Model Yea	Speed	Fuel	Population	VMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUNE	PM2.5_IDLE	PM2.5_STRE	PM2.5_PMTV	PM2.5_PMBV	PM10_RUNE	PM10_IDLEX	PM10_STREX	PM10_PMTV	PM10_PMBV	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOA	ROG_RUNLOS	ROG_RESTLOS	ROG_DIURN	TOG_RUNEX	TOG_IDLEX	TOG_STREX	TOG_HOTSOA	TOG_RUNLOS	TOG_RESTLOS	TOG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
Santa Clara	2023	HHDT	Aggregate	Aggregate	Gasoline	4.81544789	553.412428	96.3474814	3.17829795	0	0.25416542	0.00115738	0	0.00062258	0.005000001	0.026460008	0.00125876	0	0.00067711	0.02000001	0.06174002	1915.6425	0	46.3867568	0.08431821	0	0.00046199	0.13088856	0	0.00857118	0.40967598	0	0.00241616	0.109046821	0.558690672	0.026464971	0.04780809	0.59779823	0	0.00264539	0.109046821	0.558690672	0.026464971	0.04780809	27.8206991	0	5.57125047	0.01895684	0	0.00045903
Santa Clara	2023	HHDT	Aggregate	Aggregate	Diesel	8401.7898	1034051.18	89180.2933	2.69619799	57.8053861	2.36014652	0.023886545	0.02637258	0	0.008878606	0.026103101	0.02496659	0.02756503	0	0.03551442	0.06090724	1411.72947	11326.4474	0	0.00110625	0.21495254	0	0.22190421	1.7803598	0	0.02381721	4.62786924	0	0	0	0	0	0.02711408	5.26847685	0	0	0	0	0	0.23374149	67.5266685	0	0.01333732	0.10700666	0
Santa Clara	2023	HHDT	Aggregate	Aggregate	Natural Ga	360.32457	14693.2469	1405.26582	1.58831407	20.7610821	0	0.004528952	0.02805465	0	0.009000003	0.026460008	0.00473373	0.02932316	0	0.03600001	0.06174002	3174.27523	4018.42826	0	3.45654907	1.23775068	0	0.64709677	0.81918289	0	0.14804414	0.0424158	0	0	0	0	0	3.64006958	1.29139313	0	0	0	0	0	10.7604948	21.6078861	0	0	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Gasoline	751359.646	26739811.2	3542534.48	0.03405862	0	0.18461532	0.001247025	0	0.00168218	0.002000001	0.015750005	0.00135625	0	0.00182949	0.008	0.03675001	252.091031	0	53.8735618	0.00204803	0	0.05007117	0.0041129	0	0.02565554	0.00769608	0	0.22150374	0.09420523	0.212597286	0.166193143	0.18754485	0.01122791	0	0.24251819	0.09420523	0.212597286	0.166193143	0.18754485	0.58614761	0	2.25977451	0.00249465	0	0.00053312
Santa Clara	2023	LDA	Aggregate	Aggregate	Diesel	7591.98746	280497.688	36090.417	0.05867934	0	0	0.005597874	0	0	0.002000001	0.015750005	0.00585099	0	0	0.008	0.03675001	195.19256	0	0	0.00055212	0	0	0.03068155	0	0	0.01188672	0	0	0	0	0	0	0.01353224	0	0	0	0	0	0	0.18802278	0	0	0.00184527	0	0
Santa Clara	2023	LDA	Aggregate	Aggregate	Electricity	28074.667	1034348.45	136585.922	0	0	0	0	0	0	0.002000001	0.015750005	0	0	0	0.008	0.03675001	0	0	0	0	0	0	0	0	0	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0	0	0
Santa Clara	2023	LDT1	Aggregate	Aggregate	Gasoline	75517.84	2475366.78	350250.979	0.0787451	0	0.23275116	0.001604203	0	0.00208682	0.002000001	0.015750005	0.00174466	0	0.00226952	0.008	0.03675001	292.879423	0	62.8026536	0.00421409	0	0.06390737	0.00649338	0	0.02758954	0.01808672	0	0.30939312	0.159697653	0.584021866	0.309209157	0.38420304	0.0263845	0	0.33874578	0.159697653	0.584021866	0.309209157	0.38420304	0.95574547	0	2.36685814	0.00289828	0	0.00062148
Santa Clara	2023	LDT1	Aggregate	Aggregate	Diesel	34.1777023	620.517592	112.433526	1.09889119	0	0	0.146297371	0	0	0.002000001	0.015750005	0.15291229	0	0	0.008	0.03675001	401.626831	0	0	0.00883702	0	0	0.06313014	0	0	0.19025583	0	0	0	0	0	0	0.21659361	0	0	0	0	0	0	1.08010676	0	0	0.00379682	0	0
Santa Clara	2023	LDT1	Aggregate	Aggregate	Electricity	788.414404	31182.479	3917.00987	0	0	0	0	0	0	0.002000001	0.015750005	0	0	0	0.008	0.03675001	0	0	0	0	0	0	0	0	0	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0	0	0
Santa Clara	2023	LDT2	Aggregate	Aggregate	Gasoline	254167.458	8294772.48	1184411.86	0.06837046	0	0.27599855	0.001263354	0	0.00163904	0.002000001	0.015750005	0.001374	0	0.00178258	0.008	0.03675001	316.884841	0	69.1721559	0.00330461	0	0.0676945	0.00591993	0	0.0316917	0.01328783	0	0.31384163	0.123253521	0.427158383	0.276975422	0.29129773	0.01938715	0	0.34361685	0.123253521	0.427158383	0.276975422	0.29129773	0.8000246	0	2.83723674	0.00313583	0	0.00068451
Santa Clara	2023	LDT2	Aggregate	Aggregate	Diesel	1802.6879	66004.686	8781.20325	0.03709762	0	0	0.004581259	0	0	0.002000001	0.015750005	0.0047884	0	0	0.008	0.03675001	268.332949	0	0	0.00063588	0	0	0.0421782	0	0	0.01369002	0	0	0	0	0	0	0.01558518	0	0	0	0	0	0	0.12412248	0	0	0.00253671	0	0
Santa Clara	2023	LDT2	Aggregate	Aggregate	Electricity	3304.55481	98384.6372	16510.2762	0	0	0	0	0	0	0.002000001	0.015750005	0	0	0	0.008	0.03675001	0	0	0	0	0	0	0	0	0	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0	0	0
Santa Clara	2023	LHDT1	Aggregate	Aggregate	Gasoline	16555.1256	562141.991	246646.705	0.2104566	0.03739825	0.51122369	0.002136558	0	0.00037697	0.002000001	0.032760009	0.0023237	0	0.00040999	0.008	0.07644002	994.527589	120.067767	18.8222476	0.009676	0.11880506	0.02386985	0.01289472	0.00308883	0.04019432	0.04670715	0.42849074	0.12058421	0.12035879	0.829143861	0.024473054	0.04799401	0.06815497	0.62525268	0.13202453	0.12035879	0.829143861	0.024473054	0.04799401	0.86772226	3.75476588	1.72400025	0.00984166	0.00118817	0.00018626

Santa Clara	2028	MDV	Aggregate	Aggregate	Diesel	5242.10535	167607.344	25002.5223	0.01984139	0	0	0.002436093	0	0	0.002000001	0.015750005	0.00254624	0	0	0.008	0.03675001	307.178209	0	0	0.00033183	0	0	0.04828414	0	0	0.00714407	0	0	0	0	0	0	0.00813305	0	0	0	0	0	0	0.16586292	0	0	0.00290394	0	0
Santa Clara	2028	MDV	Aggregate	Aggregate	Electricity	4307.42183	119635.198	21466.1394	0	0	0	0	0	0	0.002000001	0.015750005	0	0	0	0.008	0.03675001	0	0	0	0	0	0	0	0	0	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0.004888026	0	0.004559723	0.01750076	0	0	0	0	0	0
Santa Clara	2028	MH	Aggregate	Aggregate	Gasoline	2771.50514	25933.6295	277.261374	0.20358231	0	0.3419013	0.001346711	0	0.00029796	0.003000001	0.055860016	0.00146467	0	0.00032406	0.012	0.13034004	1581.63202	0	23.4061457	0.00708605	0	0.02913136	0.01648146	0	0.03865403	0.02644361	0	0.11334091	0.052073882	1.116535085	0.0236653	0.06162212	0.03858645	0	0.12409403	0.052073882	1.116535085	0.0236653	0.06162212	0.5632583	0	2.50046521	0.01565153	0	0.00023162
Santa Clara	2028	MH	Aggregate	Aggregate	Diesel	1211.25154	10731.1605	121.125154	3.37740214	0	0	0.05542237	0	0	0.004000001	0.055860016	0.05792832	0	0	0.016	0.13034004	936.895906	0	0	0.00428981	0	0	0.14726699	0	0	0.09235713	0	0	0	0	0	0	0.10514246	0	0	0	0	0	0	0.30680595	0	0	0.00885704	0	0
Santa Clara	2028	MHDT	Aggregate	Aggregate	Gasoline	1814.54049	91890.4751	36305.3262	0.17060288	0.0892117	0.33293834	0.00127152	0	0.0004024	0.003000001	0.055860016	0.00138289	0	0.00043765	0.012	0.13034004	1554.95543	489.410749	34.16799	0.00533909	0.27620262	0.03336513	0.01165917	0.00833409	0.02969693	0.02342419	1.02350311	0.16769758	0.058199003	0.307868936	0.01355573	0.02413868	0.03418052	1.49349334	0.18360775	0.058199003	0.307868936	0.01355573	0.02413868	0.49366261	15.2417924	3.59983185	0.01538754	0.00484312	0.00033812
Santa Clara	2028	MHDT	Aggregate	Aggregate	Diesel	10801.7248	588710.054	107145.5	1.63339195	4.77082482	2.15673936	0.00757772	0.00269273	0	0.003000001	0.055860016	0.00792035	0.00281448	0	0.012	0.13034004	936.539737	810.769127	0	0.00051098	0.0032923	0	0.147211	0.12744162	0	0.01100118	0.07088223	0	0	0	0	0	0.01252401	0.08069402	0	0	0	0	0	0.1170936	2.75333595	0	0.00884796	0.00765974	0
Santa Clara	2028	OBUS	Aggregate	Aggregate	Gasoline	513.675745	22424.7439	10277.6243	0.24159291	0.06519548	0.31061669	0.00115239	0	0.00024632	0.003000001	0.055860016	0.00125333	0	0.00026789	0.012	0.13034004	1592.91288	352.477655	24.2778337	0.00706209	0.2020336	0.02738141	0.01445833	0.00582831	0.02610263	0.03188206	0.74829205	0.13888503	0.027529353	0.316397368	0.017026491	0.03757011	0.04652223	1.091906	0.15206163	0.027529353	0.316397368	0.017026491	0.03757011	0.67125727	5.786776	2.87553498	0.01576316	0.00348805	0.00024025
Santa Clara	2028	OBUS	Aggregate	Aggregate	Diesel	823.68513	51492.4955	7638.62039	1.96365127	9.10567102	2.21564024	0.010030724	0.00287808	0	0.003000001	0.055860016	0.01048427	0.00300821	0	0.012	0.13034004	1089.73001	1888.72684	0	0.00058871	0.02811692	0	0.17129038	0.29688156	0	0.01267467	0.60534952	0	0	0	0	0	0.01442915	0.68914435	0	0	0	0	0	0.14509255	10.1129113	0	0.01029523	0.01784375	0
Santa Clara	2028	SBUS	Aggregate	Aggregate	Gasoline	332.839773	14217.2709	1331.35909	0.30187359	0.9265304	0.60193323	0.001186896	0	0.00053397	0.002000001	0.319200087	0.00129086	0	0.00058074	0.008	0.7448002	817.657764	2452.11494	45.2549784	0.00693113	2.43998253	0.05550457	0.01935076	0.08965341	0.05631236	0.0334516	10.6415181	0.31547774	0.067097628	0.435268277	0.013207453	0.02795026	0.04881249	15.5280783	0.34540842	0.067097628	0.435268277	0.013207453	0.02795026	0.72909071	82.2408776	7.66687355	0.00809139	0.02426567	0.00044783
Santa Clara	2028	SBUS	Aggregate	Aggregate	Diesel	994.790709	31148.586	11479.7469	5.18358363	38.2829684	1.11315527	0.033323415	0.03132612	0	0.003000001	0.319200091	0.03483015	0.03274254	0	0.012	0.74480021	1081.34227	3580.20127	0	0.00391697	0.01227456	0	0.16997195	0.56275778	0	0.08433126	0.26426783	0	0	0	0	0	0.09600472	0.30084881	0	0	0	0	0	0.25508654	7.13120705	0	0.01021599	0.03382397	0
Santa Clara	2028	UBUS	Aggregate	Aggregate	Gasoline	8.44235655	1062.73959	33.7694262	0.28710915	0	0.87735588	0.002208844	0	0.00088779	0.003000002	0.055860034	0.00240232	0	0.00096555	0.01200001	0.13034008	1956.29609	0	89.0110274	0.00692858	0	0.12619283	0.02490667	0	0.07617663	0.02272789	0	0.53190644	0.028671419	0.155076307	0.005383808	0.00994519	0.03316448	0	0.5823706	0.028671419	0.155076307	0.005383808	0.00994519	0.36591051	0	8.85262231	0.01935914	0	0.00088084
Santa Clara	2028	UBUS	Aggregate	Aggregate	Diesel	405.906436	43473.3994	1623.62574	0.799842	0	0	0.005629495	0	0	0.008352549	0.02963255	0.00588404	0	0	0.0334102	0.06914262	1510.05139	0	0	0.07690683	0	0	0.23735905	0	0	0.00109885	0	0	0	0	0	0	0.07848906	0	0	0	0	0	0	0.13046666	0	0	0.01427542	0	0
Santa Clara	2028	UBUS	Aggregate	Aggregate	Natural Ga	122.796143	15495.0436	491.184572	0.49506655	0	0	0.003217614	0	0	0.008638246	0.028232635	0.0033631	0	0	0.03455299	0.06587615	2036.31597	0	0	6.50999699	0	0	0.41511633	0	0	0.09301501	0	0	0	0	0	0	6.64392942	0	0	0	0	0	0	50.6295865	0	0	0	0	0

Source: EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: Santa Clara
Calendar Year: 2029
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	Populatior	VMT	Trips	NOx RUNI	NOx IDLE	NOx STRE	PM2.5 RU	PM2.5 IDI
Santa Clar	2029	HHDT	Aggregate	Aggregate	Gasoline	6.295281	811.3613	125.956	2.866261	0	0.073746	0.001085	0
Santa Clar	2029	HHDT	Aggregate	Aggregate	Diesel	9282.995	1159267	99988.01	2.558324	56.40111	2.355822	0.023231	0.022399
Santa Clar	2029	HHDT	Aggregate	Aggregate	Natural Ga	399.2885	16282.35	1557.225	0.941114	19.24469	0	0.003549	0.016772
Santa Clar	2029	LDA	Aggregate	Aggregate	Gasoline	853728	28159673	4018358	0.021203	0	0.137046	0.000937	0
Santa Clar	2029	LDA	Aggregate	Aggregate	Diesel	9729.04	331477.5	46313.88	0.019347	0	0	0.002111	0
Santa Clar	2029	LDA	Aggregate	Aggregate	Electricity	43844.94	1563713	210806.3	0	0	0	0	0
Santa Clar	2029	LDT1	Aggregate	Aggregate	Gasoline	87130.77	2642631	404274.6	0.038175	0	0.161149	0.001073	0
Santa Clar	2029	LDT1	Aggregate	Aggregate	Diesel	13.01714	355.2838	55.6127	0.247418	0	0	0.024301	0
Santa Clar	2029	LDT1	Aggregate	Aggregate	Electricity	1984.03	75619.62	9747.75	0	0	0	0	0
Santa Clar	2029	LDT2	Aggregate	Aggregate	Gasoline	277522.5	8403969	1289195	0.038059	0	0.183603	0.000981	0
Santa Clar	2029	LDT2	Aggregate	Aggregate	Diesel	2486.675	79769.16	11867.9	0.029378	0	0	0.003941	0
Santa Clar	2029	LDT2	Aggregate	Aggregate	Electricity	7627.257	199889.2	37396.46	0	0	0	0	0
Santa Clar	2029	LHDT1	Aggregate	Aggregate	Gasoline	17260.56	560396.9	257156.6	0.110767	0.031434	0.401639	0.002092	0
Santa Clar	2029	LHDT1	Aggregate	Aggregate	Diesel	14422.99	500201.3	181423.1	0.600626	1.406286	0	0.012498	0.026342
Santa Clar	2029	LHDT2	Aggregate	Aggregate	Gasoline	2493.419	81131.11	37148.23	0.101391	0.030829	0.393363	0.001974	0
Santa Clar	2029	LHDT2	Aggregate	Aggregate	Diesel	5923.58	197534.7	74511.18	0.562437	1.438029	0	0.018007	0.026946
Santa Clar	2029	MCY	Aggregate	Aggregate	Gasoline	38134.37	251826.5	76268.74	1.138391	0	0.270331	0.001982	0
Santa Clar	2029	MDV	Aggregate	Aggregate	Gasoline	170575.1	5070014	790016.1	0.040616	0	0.20189	0.000987	0
Santa Clar	2029	MDV	Aggregate	Aggregate	Diesel	5451.204	171538.2	25933.06	0.017906	0	0	0.002199	0
Santa Clar	2029	MDV	Aggregate	Aggregate	Electricity	4864.831	131940.5	24130.65	0	0	0	0	0
Santa Clar	2029	MH	Aggregate	Aggregate	Gasoline	2770.378	25978.74	277.1486	0.180246	0	0.343544	0.001315	0
Santa Clar	2029	MH	Aggregate	Aggregate	Diesel	1241.213	10878.58	124.1213	3.282828	0	0	0.051844	0
Santa Clar	2029	MHDT	Aggregate	Aggregate	Gasoline	1879.005	94247.11	37595.13	0.151893	0.089276	0.330204	0.001274	0
Santa Clar	2029	MHDT	Aggregate	Aggregate	Diesel	11028.92	593797.4	109252.3	1.636012	4.652692	2.160816	0.007581	0.002378
Santa Clar	2029	OBUS	Aggregate	Aggregate	Gasoline	517.3655	22356.14	10351.45	0.220769	0.065209	0.308976	0.001173	0
Santa Clar	2029	OBUS	Aggregate	Aggregate	Diesel	835.3179	51291.55	7760.008	1.976063	9.221351	2.216304	0.010155	0.002919
Santa Clar	2029	SBUS	Aggregate	Aggregate	Gasoline	347.627	14710.39	1390.508	0.291844	0.92653	0.614641	0.001202	0
Santa Clar	2029	SBUS	Aggregate	Aggregate	Diesel	988.4049	30953.75	11406.05	4.840619	36.69514	1.182317	0.031631	0.028408
Santa Clar	2029	UBUS	Aggregate	Aggregate	Gasoline	8.446183	1063.221	33.78473	0.312822	0	0.922458	0.002209	0
Santa Clar	2029	UBUS	Aggregate	Aggregate	Diesel	376.7236	42017.59	1506.895	0.804174	0	0	0.005656	0
Santa Clar	2029	UBUS	Aggregate	Aggregate	Natural Ga	152.2186	16977.59	608.8744	0.487691	0	0	0.003174	0

Vehicle Cat	Fuel	PM2.5 ST	PM2.5 PM	PM2.5 PM	PM10 RU	PM10 IDL	PM10 STR	PM10 PM	PM10 PM	CO2 RUNI	CO2 IDLE	CO2 STRE
HHDT	Gasoline	0.000421	0.005	0.02646	0.00118	0	0.000458	0.02	0.06174	1701.906	0	40.86361
HHDT	Diesel	0	0.008903	0.026176	0.024281	0.023411	0	0.035614	0.061077	1232.827	10240.39	0
HHDT	Natural Ga	0	0.009	0.02646	0.00371	0.01753	0	0.036	0.06174	2941.241	3707.75	0
LDA	Gasoline	0.00132	0.002	0.01575	0.001019	0	0.001435	0.008	0.03675	215.8034	0	45.89836
LDA	Diesel	0	0.002	0.01575	0.002206	0	0	0.008	0.03675	169.0265	0	0
LDA	Electricity	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0
LDT1	Gasoline	0.001467	0.002	0.01575	0.001167	0	0.001596	0.008	0.03675	253.455	0	53.97777
LDT1	Diesel	0	0.002	0.01575	0.0254	0	0	0.008	0.03675	329.5062	0	0
LDT1	Electricity	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0
LDT2	Gasoline	0.001347	0.002	0.01575	0.001067	0	0.001465	0.008	0.03675	262.7309	0	57.43867
LDT2	Diesel	0	0.002	0.01575	0.004119	0	0	0.008	0.03675	230.8855	0	0
LDT2	Electricity	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0
LHDT1	Gasoline	0.00034	0.002	0.03276	0.002275	0	0.000369	0.008	0.07644	909.5591	111.8884	17.59654
LHDT1	Diesel	0	0.003	0.03276	0.013063	0.027533	0	0.012	0.07644	485.1429	119.945	0
LHDT2	Gasoline	0.000299	0.002	0.03822	0.002146	0	0.000325	0.008	0.08918	1034.793	127.9233	19.7956
LHDT2	Diesel	0	0.003	0.03822	0.018821	0.028164	0	0.012	0.08918	547.7418	193.8137	0
MCY	Gasoline	0.002702	0.001	0.00504	0.002124	0	0.002887	0.004	0.01176	209.7954	0	59.44023
MDV	Gasoline	0.001388	0.002	0.01575	0.001073	0	0.001509	0.008	0.03675	317.3811	0	69.45281
MDV	Diesel	0	0.002	0.01575	0.002299	0	0	0.008	0.03675	300.8116	0	0
MDV	Electricity	0	0.002	0.01575	0	0	0	0.008	0.03675	0	0	0
MH	Gasoline	0.00029	0.003	0.05586	0.00143	0	0.000315	0.012	0.13034	1556.721	0	23.01615
MH	Diesel	0	0.004	0.05586	0.054188	0	0	0.016	0.13034	924.8316	0	0
MHDT	Gasoline	0.0004	0.003	0.05586	0.001385	0	0.000435	0.012	0.13034	1532.476	482.9929	33.5678
MHDT	Diesel	0	0.003	0.05586	0.007923	0.002485	0	0.012	0.13034	922.8619	798.3984	0
OBUS	Gasoline	0.000249	0.003	0.05586	0.001275	0	0.000271	0.012	0.13034	1566.66	348.208	23.93855
OBUS	Diesel	0	0.003	0.05586	0.010614	0.003051	0	0.012	0.13034	1077.078	1893.888	0
SBUS	Gasoline	0.000541	0.002	0.3192	0.001307	0	0.000588	0.008	0.7448	810.6195	2432.681	44.90409
SBUS	Diesel	0	0.003	0.3192	0.033061	0.029692	0	0.012	0.7448	1067.627	3542.964	0
UBUS	Gasoline	0.000888	0.003	0.05586	0.002402	0	0.000966	0.012	0.13034	1956.228	0	89.10706
UBUS	Diesel	0	0.008428	0.029265	0.005912	0	0	0.03371	0.068284	1523.264	0	0
UBUS	Natural Ga	0	0.008428	0.029265	0.003317	0	0	0.03371	0.068284	2010.534	0	0

Vehicle Cat	Fuel	CH4 RUNI	CH4 IDLE	CH4 STRE	N2O RUN	N2O IDLE	N2O STRE	ROG RUN	ROG IDLE	ROG STRE	ROG HOT	ROG RUN	ROG REST	ROG DIUR
HHDT	Gasoline	0.068174	0	0.000353	0.126214	0	0.002533	0.30198	0	0.001846	0.048194	0.238547	0.013026	0.022062
HHDT	Diesel	0.00107	0.215061	0	0.193783	1.609647	0	0.023044	4.630195	0	0	0	0	0
HHDT	Natural Ga	3.244896	1.19662	0	0.599591	0.755849	0	0.095201	0.029286	0	0	0	0	0
LDA	Gasoline	0.001103	0	0.032712	0.003148	0	0.020919	0.003711	0	0.135071	0.068442	0.184339	0.120066	0.130322
LDA	Diesel	0.000296	0	0	0.026569	0	0	0.006375	0	0	0	0	0	0
LDA	Electricity	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501
LDT1	Gasoline	0.001933	0	0.03883	0.004096	0	0.022276	0.007627	0	0.171781	0.102528	0.399366	0.208256	0.237588
LDT1	Diesel	0.002092	0	0	0.051794	0	0	0.045034	0	0	0	0	0	0
LDT1	Electricity	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501
LDT2	Gasoline	0.001924	0	0.046096	0.00402	0	0.024262	0.00725	0	0.202419	0.09647	0.362232	0.240872	0.243426
LDT2	Diesel	0.000596	0	0	0.036292	0	0	0.012836	0	0	0	0	0	0
LDT2	Electricity	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501
LHDT1	Gasoline	0.005006	0.104072	0.016537	0.007482	0.002842	0.03426	0.022049	0.36045	0.08124	0.097218	0.741338	0.020534	0.037823
LHDT1	Diesel	0.006242	0.005098	0	0.076258	0.018854	0	0.134389	0.10976	0	0	0	0	0
LHDT2	Gasoline	0.00359	0.103148	0.015526	0.007554	0.002787	0.033619	0.014014	0.353823	0.074196	0.078477	0.46597	0.017464	0.030494
LHDT2	Diesel	0.006233	0.005098	0	0.086097	0.030465	0	0.134195	0.10976	0	0	0	0	0
MCY	Gasoline	0.319805	0	0.24865	0.065619	0	0.015368	2.135272	0	1.88457	0.638017	1.549578	0.950624	1.788816
MDV	Gasoline	0.002042	0	0.049973	0.004222	0	0.025022	0.007806	0	0.228358	0.107976	0.376301	0.284865	0.287907
MDV	Diesel	0.000313	0	0	0.047283	0	0	0.00673	0	0	0	0	0	0
MDV	Electricity	0	0	0	0	0	0	0	0	0	0.004888	0	0.00456	0.017501
MH	Gasoline	0.0061	0	0.02886	0.015521	0	0.039134	0.021354	0	0.111115	0.04625	0.930493	0.021882	0.055605
MH	Diesel	0.004203	0	0	0.145371	0	0	0.090484	0	0	0	0	0	0
MHDT	Gasoline	0.004773	0.276946	0.03281	0.010938	0.00838	0.029786	0.020449	1.024454	0.163394	0.055701	0.291156	0.013253	0.023183
MHDT	Diesel	0.000507	0.003259	0	0.145061	0.125497	0	0.010921	0.070175	0	0	0	0	0
OBUS	Gasoline	0.006428	0.20215	0.026985	0.013625	0.005844	0.026098	0.028614	0.7485	0.136312	0.02747	0.318047	0.01707	0.037453
OBUS	Diesel	0.000593	0.028595	0	0.169302	0.297693	0	0.012756	0.61564	0	0	0	0	0
SBUS	Gasoline	0.006606	2.437784	0.055682	0.019039	0.089537	0.057088	0.031809	10.64152	0.316363	0.070208	0.455442	0.013906	0.029314
SBUS	Diesel	0.003718	0.012256	0	0.167816	0.556905	0	0.080043	0.263866	0	0	0	0	0
UBUS	Gasoline	0.00691	0	0.132883	0.02647	0	0.07811	0.022728	0	0.561641	0.038356	0.193645	0.007038	0.012382
UBUS	Diesel	0.077448	0	0	0.239436	0	0	0.001107	0	0	0	0	0	0
UBUS	Natural Ga	6.385838	0	0	0.40986	0	0	0.091241	0	0	0	0	0	0

Vehicle Cat	Fuel	TOG RUN	TOG IDLE	TOG STRE	TOG HOT	TOG RUN	TOG REST	TOG DIUR	CO RUNE	CO IDLEX	CO STREX	SOx RUNE	SOx IDLEX	SOx STREX
HHDT	Gasoline	0.440648	0	0.002021	0.048194	0.238547	0.013026	0.022062	27.8108	0	5.279614	0.016842	0	0.000404
HHDT	Diesel	0.026233	5.271125	0	0	0	0	0	0.238614	67.97182	0	0.011647	0.096746	0
HHDT	Natural Ga	3.367299	1.235126	0	0	0	0	0	10.991	21.85863	0	0	0	0
LDA	Gasoline	0.005415	0	0.147885	0.068442	0.184339	0.120066	0.130322	0.442567	0	1.850708	0.002136	0	0.000454
LDA	Diesel	0.007258	0	0	0	0	0	0	0.150752	0	0	0.001598	0	0
LDA	Electricity	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
LDT1	Gasoline	0.011129	0	0.188079	0.102528	0.399366	0.208256	0.237588	0.582922	0	1.919205	0.002508	0	0.000534
LDT1	Diesel	0.051268	0	0	0	0	0	0	0.363294	0	0	0.003115	0	0
LDT1	Electricity	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
LDT2	Gasoline	0.010579	0	0.221624	0.09647	0.362232	0.240872	0.243426	0.588999	0	2.398557	0.0026	0	0.000568
LDT2	Diesel	0.014613	0	0	0	0	0	0	0.129039	0	0	0.002183	0	0
LDT2	Electricity	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
LHDT1	Gasoline	0.032173	0.525968	0.088947	0.097218	0.741338	0.020534	0.037823	0.445395	3.766677	1.565591	0.009001	0.001107	0.000174
LHDT1	Diesel	0.152993	0.124954	0	0	0	0	0	0.58269	0.909745	0	0.004586	0.001134	0
LHDT2	Gasoline	0.020449	0.516297	0.081236	0.078477	0.46597	0.017464	0.030494	0.276218	3.774297	1.491939	0.01024	0.001266	0.000196
LHDT2	Diesel	0.152773	0.124954	0	0	0	0	0	0.587989	0.909745	0	0.005178	0.001832	0
MCY	Gasoline	2.672508	0	2.052265	0.638017	1.549578	0.950624	1.788816	17.7187	0	9.180114	0.002076	0	0.000588
MDV	Gasoline	0.01139	0	0.250023	0.107976	0.376301	0.284865	0.287907	0.594716	0	2.512422	0.003141	0	0.000687
MDV	Diesel	0.007662	0	0	0	0	0	0	0.163037	0	0	0.002844	0	0
MDV	Electricity	0	0	0	0.004888	0	0.00456	0.017501	0	0	0	0	0	0
MH	Gasoline	0.03116	0	0.121657	0.04625	0.930493	0.021882	0.055605	0.419838	0	2.440636	0.015405	0	0.000228
MH	Diesel	0.10301	0	0	0	0	0	0	0.297622	0	0	0.008743	0	0
MHDT	Gasoline	0.02984	1.494881	0.178896	0.055701	0.291156	0.013253	0.023183	0.422068	15.25286	3.476238	0.015165	0.00478	0.000332
MHDT	Diesel	0.012433	0.079889	0	0	0	0	0	0.11753	2.764983	0	0.008719	0.007543	0
OBUS	Gasoline	0.041754	1.09221	0.149244	0.02747	0.318047	0.01707	0.037453	0.59587	5.788027	2.81954	0.015503	0.003446	0.000237
OBUS	Diesel	0.014522	0.70086	0	0	0	0	0	0.14586	10.26142	0	0.010176	0.017893	0
SBUS	Gasoline	0.046415	15.52808	0.346377	0.070208	0.455442	0.013906	0.029314	0.691127	82.24088	7.616254	0.008022	0.024073	0.000444
SBUS	Diesel	0.091123	0.300391	0	0	0	0	0	0.247751	7.41301	0	0.010086	0.033472	0
UBUS	Gasoline	0.033164	0	0.614926	0.038356	0.193645	0.007038	0.012382	0.386243	0	8.852622	0.019358	0	0.000882
UBUS	Diesel	0.079041	0	0	0	0	0	0	0.131472	0	0	0.0144	0	0
UBUS	Natural Ga	6.517216	0	0	0	0	0	0	49.56612	0	0	0	0	0

EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One

November 20, 2019

Summary

Staff at the California Air Resources Board's (CARB) have estimated the vehicle tailpipe and evaporative emissions impacts from the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program" adopted by the U.S. Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA). The SAFE Vehicle Rule Part One impacts some of the underlying assumptions in the EMFAC2014 and EMFAC2017 models. This document provides the off-model adjustment factors that can be used to adjust emissions output from EMFAC model (only EMFAC2014 and EMFAC2017) to account for the impacts of this rule.

What is the SAFE Vehicle Rule Part One?

On September 27, 2019, the United States Environmental Protection Agency (U.S. EPA) and the National Highway Traffic Safety Administration (NHTSA) published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.) The Part One Rule revokes California's authority to set its own greenhouse gas emissions standards and set zero-emission vehicle mandates in California. California expects Part Two of these regulations to be adopted later in the Fall of 2019. We will not know the full impacts of these rules until Part Two is released.

How Does the SAFE Vehicle Rule Impact Criteria Emissions?

As CARB has previously stated[1], both the GHG emission standards and the ZEV sales standards reduce criteria pollutants. As a result of the loss of the ZEV sales requirements, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years. This would increase criteria pollutant emissions in multiple ways. A ZEV inherently has zero evaporative emissions of hydrocarbons in the form of gasoline vapors, which escape from the tank and fuel lines during operation and while parked. A gasoline-fueled vehicle with evaporative emissions is assumed to take the place of each ZEV that will not be sold. This leads to an overall increase in hydrocarbon emissions. Additionally, tailpipe emissions of NOx, hydrocarbons, carbon monoxide, and particulate matter also increase as a result of each additional gasoline-fueled vehicle. This increase occurs for several reasons despite the presence of a criteria pollutant "fleet average" standard[2] that CARB has in place for hydrocarbons

[1] https://ww2.arb.ca.gov/carbs-comments-safe-proposal

[2] The Low Emission Vehicle III program requires manufacturers to average emissions from all vehicles in their fleet to meet the standard. In theory, the elimination of some ZEVs (which are counted in such an

and NOx. First, the fleet average does not apply to particulate matter and carbon monoxide, meaning each incremental gasoline-fueled vehicle generates additional tailpipe emissions of both pollutants. Second, because the fleet average is based on a single test cycle and does not fully capture all operating conditions, additional tailpipe emissions of all criteria pollutants occur for every incremental gasoline-fueled vehicle. Third and most significantly, both tailpipe and evaporative criteria pollutant emissions substantially increase over time due to deterioration of the emission controls on gasoline-fueled vehicles. ZEVs have no such deterioration. Thus, even with the fleet-average standard offsetting a portion of the tailpipe emissions by starting some gasoline-fueled vehicles at lower emission levels early in their life, this slight difference is overwhelmed by the increase in emissions from deterioration over the life of the vehicle.

More stringent ZEV and GHG standards are critical to reach attainment of air quality standards and meet climate needs. If standards cannot become more stringent, these mandates will be very difficult to meet. ZEV technologies, in particular, are needed in both light-duty and heavy-duty fleets to help commercialize this technology. As a result, the long-term threat to air quality is substantial as cleaner technologies, especially ZEVs, do not penetrate the fleet at the scale necessary and emissions are not reduced as needed.

What is EMFAC?

EMission FACtors (EMFAC) is California's federally-approved on-road mobile source emission inventory model that reflects California-specific driving and environmental conditions, fleet mix, and most importantly the impact of California's unique mobile source regulations such as the Low-Emission Vehicle (LEV) program including the LEV II and LEV III standards, California inspection and maintenance programs, and its in-use diesel fleet rules. The EMFAC model supports CARB's regulatory and air quality planning efforts and fulfills the federal Clean Air Act and the Federal Highway Administration's transportation planning requirements. The U.S. EPA has approved both EMFAC2014 and EMFAC2017 for use in state implementation plan (SIP) and transportation conformity analyses. For more information on EMFAC, please visit: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools.

How Did CARB Analyze the SAFE Vehicle Rule Part One's impact on vehicle emissions?

CARB estimated the change in vehicle emissions of the California light-duty vehicle fleet using its EMission FACtor (EMFAC) model. Both EMFAC2014 and EMFAC2017 default models, with an "annual average" setting, were run to estimate statewide vehicle emissions by calendar year, vehicle category, fuel type, and model year

average as zero emissions) would cause some of the remaining or increased number of gasoline-fueled vehicles to need to be certified to lower (cleaner) levels in order to still meet the same fleet average.

projected to occur under the existing Federal and CARB GHG standards and CARB ZEV requirements that were in place at the time of the analysis. These default results were then adjusted in a post-processing step to reflect the proposed SAFE Vehicle Rule[3]. As a result of freezing new ZEV sales at model year 2020 levels, the projected fleet for 2021 and beyond was modified to reflect a lower number of future ZEVs and a corresponding greater number of future gasoline internal combustion engine vehicles (and thus, a higher portion of vehicle miles traveled (VMT) by gasoline vehicles). The increased number of gasoline vehicles were put into appropriate criteria pollutant certification categories under CARB's Low Emission Vehicle (LEV) III criteria pollutant standards to maintain compliance with the required fleet average.

How is EMFAC impacted by the SAFE Vehicle Rule Part One?

Generally, after the SAFE Vehicle Rule Part One becomes effective on November 26, 2019, EMFAC2014 and EMFAC2017 will not accurately estimate future transportation emissions until they are updated with new assumptions reflecting the SAFE Vehicle Rule Part One in off-model adjustment factors provided by CARB.

What are Off-Model Adjustment Factors and how should they be applied?

CARB has prepared off-model adjustment factors for both the EMFAC2014 and EMFAC2017 models to account for the impact of the SAFE Vehicle Rule Part One. These adjustments provided in the form of multipliers can be applied to emissions outputs from EMFAC model to account for the impact of this rule. The adjustment factors are provided in Table 1 for EMFAC2014 and Table 2 for EMFAC2017 (Note these factors do not include upstream emissions associated with fuel demand, as EMFAC only estimates tailpipe and evaporative emissions).

[3] More details can be found in CARB's letter submitted to US EPA and NHTSA on November 6, 2019 available at: https://www.regulations.gov/document?D=NHTSA-2018-0067-12447

Table 1. Off-Model Adjustment Factors for Gasoline Light Duty Vehicle[4] Emissions in **EMFAC2014**

Adjustment Factors for **EMFAC2014** Gasoline Light Duty Vehicles					
Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust
2021	1.0001	1.0001	1.0001	1.0012	1.0004
2022	1.0002	1.0004	1.0001	1.0034	1.0013
2023	1.0005	1.0008	1.0003	1.0066	1.0026
2024	1.0010	1.0014	1.0005	1.0105	1.0041
2025	1.0016	1.0021	1.0009	1.0149	1.0058
2026	1.0022	1.0030	1.0012	1.0183	1.0076
2027	1.0029	1.0039	1.0016	1.0208	1.0095
2028	1.0036	1.0050	1.0020	1.0224	1.0116
2029	1.0044	1.0063	1.0025	1.0241	1.0139
2030	1.0052	1.0078	1.0030	1.0260	1.0162
2031	1.0061	1.0095	1.0036	1.0279	1.0186
2032	1.0071	1.0114	1.0042	1.0299	1.0210
2033	1.0081	1.0134	1.0050	1.0320	1.0235
2034	1.0091	1.0156	1.0059	1.0341	1.0260
2035	1.0103	1.0179	1.0070	1.0362	1.0285
2036	1.0114	1.0202	1.0082	1.0382	1.0309
2037	1.0125	1.0224	1.0096	1.0400	1.0332
2038	1.0137	1.0247	1.0111	1.0418	1.0353
2039	1.0148	1.0269	1.0126	1.0435	1.0372
2040	1.0158	1.0290	1.0141	1.0449	1.0389
2041	1.0167	1.0309	1.0154	1.0461	1.0404
2042	1.0176	1.0326	1.0168	1.0471	1.0418
2043	1.0183	1.0340	1.0180	1.0480	1.0429
2044	1.0190	1.0352	1.0190	1.0487	1.0439
2045	1.0195	1.0364	1.0199	1.0494	1.0448
2046	1.0200	1.0373	1.0206	1.0499	1.0454
2047	1.0204	1.0384	1.0213	1.0504	1.0461
2048	1.0208	1.0393	1.0218	1.0508	1.0467
2049	1.0209	1.0400	1.0221	1.0510	1.0470
2050	1.0210	1.0406	1.0224	1.0512	1.0472

[4] LDA, LDT1, LDT2 and MDV vehicle categories in EMFAC

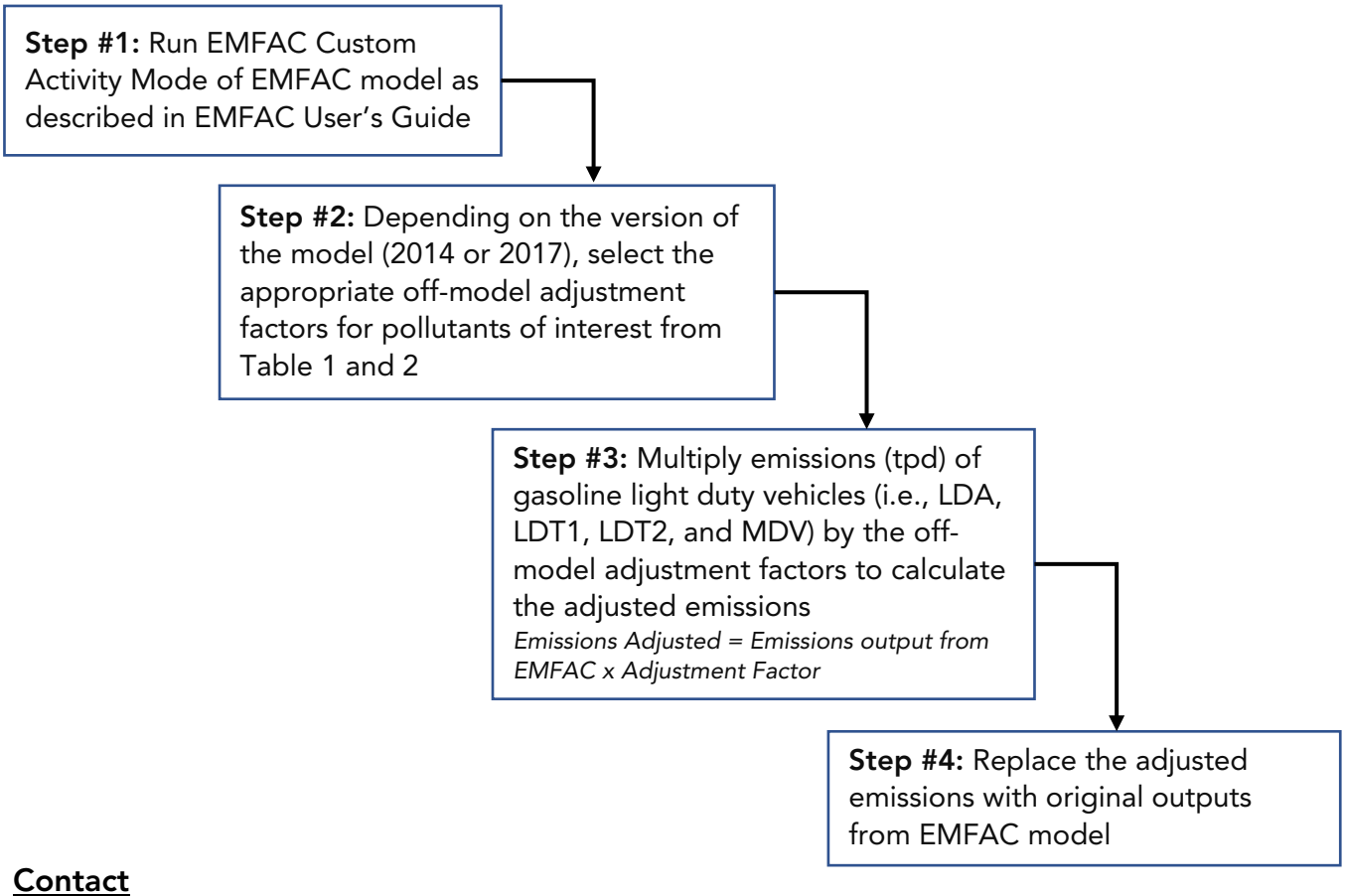
Table 2. Off-Model Adjustment Factors for Gasoline Light Duty Vehicle Emissions in **EMFAC2017**

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

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.

For example, the Custom Activity Mode of EMFAC2014 and 2017 is designed to perform emissions assessments for determining conformity with the state implementation plan. These types of assessments are most often done by various transportation planning agencies and air districts throughout California which require the user to create custom activity data files containing vehicle miles travelled (VMT) and/or speed profile data. This customized activity data will then be used for scaling the default vehicle emissions produced by EMFAC model. The off-model adjustment factors provided in this document can be applied to gasoline light duty vehicle emissions outputs of the EMFAC Custom Activity Mode, as illustrated in Figure 1.

Figure 1. Process to apply EMFAC Off-Model Adjustment Factors



Contact

For questions regarding the EMFAC off-model adjustment factors, please contact us at: EMFAC@arb.ca.gov

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

FLEA MARKET CONSTRUCTION HRA EMISSIONS

DPM					
Unmitigated DPM	DPM EMFAC2017	Unmitigated Emissions	Mitigated DPM	DPM EMFAC2017	Mitigated Emissions
0.132	0.070	0.201	0.009	0.070	0.078
0.080	0.097	0.178	0.005	0.097	0.103
0.069	0.097	0.166	0.005	0.097	0.102
0.069	0.097	0.166	0.005	0.097	0.102
0.069	0.097	0.166	0.005	0.097	0.102
0.026	0.067	0.092	0.002	0.067	0.069
Fugitive PM2.5					
Unmitigated Fug PM2.5	Fug PM2.5 EMFAC2017	Unmitigated Emissions	Mitigated Fug PM2.5	EMFAC2017	Mitigated Emissions
0.241	0.046	0.288	0.047	0.046	0.093
0.000	0.065	0.065	0.000	0.065	0.065
0.000	0.065	0.065	0.000	0.065	0.065
0.000	0.065	0.065	0.000	0.065	0.065
0.000	0.065	0.065	0.000	0.065	0.065
0.000	0.045	0.045	0.000	0.045	0.045

Note: For the construction HRA, the emissions were the same between Options 1 and Option 2 since the same construction scenario was assumed for both options. There is only one set of construction emissions and risk calculations.

Flea Market (Option 1 & 2), 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)
2023	Construction	0.2010	Point	198	402.0	0.11014	1.39E-02	7.01E-05
2024	Construction	0.1777	Point	198	355.4	0.09737	1.23E-02	6.20E-05
2025	Construction	0.1659	Point	198	331.8	0.09090	1.15E-02	5.78E-05
2026	Construction	0.1657	Point	198	331.5	0.09081	1.14E-02	5.78E-05
2027	Construction	0.1655	Point	198	331.0	0.09068	1.14E-02	5.77E-05
2028	Construction	0.0920	Point	198	184.0	0.05041	6.35E-03	3.21E-05
Total		***0.9678***		***1188***	***1936***	***0.5303***		

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)	DPM Emission Rate $g/s/m^2$
2023	Construction	FUG	0.2875	575.0	0.15753	1.98E-02	249,723	7.95E-08
2024	Construction	FUG	0.0651	130.2	0.03567	4.49E-03	249,723	1.80E-08
2025	Construction	FUG	0.0649	129.8	0.03556	4.48E-03	249,723	1.79E-08
2026	Construction	FUG	0.0649	129.8	0.03556	4.48E-03	249,723	1.79E-08
2027	Construction	FUG	0.0649	129.8	0.03556	4.48E-03	249,723	1.79E-08
2028	Construction	FUG	0.0448	89.6	0.02455	3.09E-03	249,723	1.24E-08
Total			***0.5921***	***1184***	***0.3244***	***0.0409***		

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)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2023	Construction	0.0782	Point	198	156.3	0.04283	5.40E-03	2.73E-05
2024	Construction	0.1028	Point	198	205.5	0.05631	7.09E-03	3.58E-05
2025	Construction	0.1023	Point	198	204.7	0.05607	7.07E-03	3.57E-05
2026	Construction	0.1021	Point	198	204.3	0.05597	7.05E-03	3.56E-05
2027	Construction	0.1019	Point	198	203.9	0.05585	7.04E-03	3.55E-05
2028	Construction	0.0687	Point	198	137.4	0.03765	4.74E-03	2.40E-05
Total		***0.5560***		***1188***	***1112***	***0.3047***		

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)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2023	Construction	FUG	0.0934	186.8	0.05118	6.45E-03	249,723	2.58E-08
2024	Construction	FUG	0.0651	130.2	0.03567	4.49E-03	249,723	1.80E-08
2025	Construction	FUG	0.0649	129.8	0.03556	4.48E-03	249,723	1.79E-08
2026	Construction	FUG	0.0649	129.8	0.03556	4.48E-03	249,723	1.79E-08
2027	Construction	FUG	0.0649	129.8	0.03556	4.48E-03	249,723	1.79E-08
2028	Construction	FUG	0.0448	89.6	0.02455	3.09E-03	249,723	1.24E-08
Total			***0.3980***	***796.0***	***0.2181***	***0.0275***		

Construction Hours

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

Construction Risk Calculations – Residential

Flea Market, San Jose, CA
Construction Health Impacts Summary

Maximum Impacts at Construction MEI Location - Unmitigated

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Child	Adult	(-)	($\mu g/m^3$)
2023	0.0230	0.0380	4.10	0.07	0.005	0.06
2024	0.0203	0.0033	3.34	0.06	0.004	0.02
2025	0.0190	0.0033	0.49	0.05	0.004	0.02
2026	0.0190	0.0033	0.49	0.05	0.004	0.02
2027	0.0189	0.0033	0.49	0.05	0.004	0.02
2028	0.0105	0.0023	0.27	0.03	0.002	0.01
Total	-	-	**9.2**	**0.3**	-	-
Maximum	0.0230	0.0380	**-**	**-**	**0.005**	**0.06**

Maximum Impacts at Construction MEI Location - With Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Child	Adult	(-)	($\mu g/m^3$)
2023	0.0089	0.0138	1.60	0.01	0.002	0.02
2024	0.0118	0.0096	1.93	0.01	0.002	0.02
2025	0.0117	0.0096	0.30	0.01	0.002	0.02
2026	0.0117	0.0096	0.30	0.01	0.002	0.02
2027	0.0117	0.0096	0.30	0.01	0.002	0.02
2028	0.0079	0.0066	0.20	0.01	0.002	0.01
Total	-	-	**4.6**	**0.1**	-	-
Maximum	0.0118	0.0138	**-**	**-**	**0.002**	**0.02**

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated Emissions
Impacts at Off-Site Receptors - 5 feet

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 =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information			Infant/Child Cancer	Adult - Exposure Information			Adult Cancer	Maximum		
			DPM Conc (ug/m3)		Age	Risk	Modeled DPM Conc (ug/m3)		Age	Risk	Hazard	Fugitive	Total
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**(per million)**	**Year**	**Annual**	**Sensitivity Factor**	**(per million)**	**Index**	**PM2.5***	**PM2.5***
0	0.25	-0.25 - 0*	2023	0.0230	10	0.33	2023	0.0230	-	-	**0.005**	**0.097**	**0.130**
1	1	0 - 1	2023	0.0230	10	3.78	2023	0.0230	1	0.07	0.005	0.097	0.130
2	1	1 - 2	2024	0.0203	10	3.34	2024	0.0203	1	0.06	0.004	0.022	0.052
3	1	2 - 3	2025	0.0190	3	0.49	2025	0.0190	1	0.05	0.004	0.022	0.050
4	1	3 - 4	2026	0.0190	3	0.49	2026	0.0190	1	0.05	0.004	0.022	0.050
5	1	4 - 5	2027	0.0189	3	0.49	2027	0.0189	1	0.05	0.004	0.022	0.050
6	1	5 - 6	2028	0.0105	3	0.27	2028	0.0105	1	0.03	0.002	0.015	0.030
7	1	6 - 7	2029	0.0000	3	0.00	2029	0.0000	1	0.00			
8	1	7 - 8	2030	0.0000	3	0.00	2030	0.0000	1	0.00			
9	1	8 - 9	2031	0.0000	3	0.00	2031	0.0000	1	0.00			
10	1	9 - 10	2032	0.0000	3	0.00	2032	0.0000	1	0.00			
11	1	10 - 11	2033	0.0000	3	0.00	2033	0.0000	1	0.00			
12	1	11 - 12	2034	0.0000	3	0.00	2034	0.0000	1	0.00			
13	1	12 - 13	2035	0.0000	3	0.00	2035	0.0000	1	0.00			
14	1	13 - 14	2036	0.0000	3	0.00	2036	0.0000	1	0.00			
15	1	14 - 15	2037	0.0000	3	0.00	2037	0.0000	1	0.00			
16	1	15 - 16	2038	0.0000	3	0.00	2038	0.0000	1	0.00			
17	1	16-17	2039	0.0000	1	0.00	2039	0.0000	1	0.00			
18	1	17-18	2040	0.0000	1	0.00	2040	0.0000	1	0.00			
19	1	18-19	2041	0.0000	1	0.00	2041	0.0000	1	0.00			
20	1	19-20	2042	0.0000	1	0.00	2042	0.0000	1	0.00			
21	1	20-21	2043	0.0000	1	0.00	2043	0.0000	1	0.00			
22	1	21-22	2044	0.0000	1	0.00	2044	0.0000	1	0.00			
23	1	22-23	2045	0.0000	1	0.00	2045	0.0000	1	0.00			
24	1	23-24	2046	0.0000	1	0.00	2046	0.0000	1	0.00			
25	1	24-25	2047	0.0000	1	0.00	2047	0.0000	1	0.00			
26	1	25-26	2048	0.0000	1	0.00	2048	0.0000	1	0.00			
27	1	26-27	2049	0.0000	1	0.00	2049	0.0000	1	0.00			
28	1	27-28	2050	0.0000	1	0.00	2050	0.0000	1	0.00			
29	1	28-29	2051	0.0000	1	0.00	2051	0.0000	1	0.00			
30	1	29-30	2052	0.0000	1	0.00	2052	0.0000	1	0.00			
Total Increased Cancer Risk						**9.2**				**0.32**			

*Concentration based on the Bridge Housing Project location

* Third trimester of pregnancy

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Mitigated Emissions
Impacts at Off-Site Receptors - 5 feet

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 =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum			
				DPM Conc (ug/m3)	Age			DPM Conc (ug/m3)	Age					
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5***	**Total PM2.5***	
0	0.25	-0.25 - 0*	2023	0.0089	10	0.13	2023	0.0089	-	-	**0.002**	**0.032**	**0.087**	
1	1	0 - 1	2023	0.0089	10	1.47	2023	0.0089	1	0.03	0.002	0.0315	0.044	*Concentration based
2	1	1 - 2	2024	0.0118	10	1.93	2024	0.0118	1	0.03	0.002	0.0220	0.039	on the Bridge Housing
3	1	2 - 3	2025	0.0117	3	0.30	2025	0.0117	1	0.03	0.002	0.0219	0.087	Project location
4	1	3 - 4	2026	0.0117	3	0.30	2026	0.0117	1	0.03	0.002	0.0219	0.039	
5	1	4 - 5	2027	0.0117	3	0.30	2027	0.0117	1	0.03	0.002	0.0219	0.039	
6	1	5 - 6	2028	0.0079	3	0.20	2028	0.0079	1	0.02	0.002	0.0151	0.026	
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						**4.6**				**0.18**				

* Third trimester of pregnancy

Operation Risk Calculations – Residential

Project Generators

Flea Market, San Jose, CA

Standby Emergency Generator Impacts
Off-site Sensitive Receptors

DPM Emission Rates		
	DPM Emissions per Generator	
	Max Daily	Annual
Source Type	(lb/day)	(lb/year)
7x 1,000 kW Generator	0.0444	16.20
CalEEMod DPM Emissions	8.10E-03	

Modeling Information		
Model	AERMOD	
Source	Diesel Generator Engine	
Source Type	Point	
Meteorological Data	2013-2017 BAAQMD San Jose Airport Meteorological Data	
Point Source Stack Parameters		
Generator Engine Size (hp)	1341	
Stack Height (ft)*	12.00	near ground level release assumed
Stack Diameter (ft)*	0.60	
Exhaust Gas Flowrate (CFM)**	2527.73	
Stack Exit Velocity (ft/sec)*	149.00	
Exhaust Temperature (˚F)*	872.00	
Emissions Rate (lb/hr)	0.001849	

*BAAQMD Default Generator Parameters

**AERMOD Default

Flea Market, San Jose, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors - 5 Feet Receptor Height

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

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

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

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

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)
			DPM Conc (ug/m3)		Age Sensitivity	
			Year	Annual	Factor	
0	0.25	-0.25 - 0*	2023	0.0000	10	0.00
1	1	0 - 1	2023	0.0000	10	0.00
2	1	1 - 2	2024	0.0000	10	0.00
3	1	2 - 3	2025	0.0000	3	0.00
4	1	3 - 4	2026	0.0000	3	0.00
5	1	4 - 5	2027	0.0000	3	0.00
6	1	5 - 6	2028	0.0000	3	0.00
7	1	6 - 7	2029	0.0055	3	0.14
8	1	7 - 8	2030	0.0055	3	0.14
9	1	8 - 9	2031	0.0055	3	0.14
10	1	9 - 10	2032	0.0055	3	0.14
11	1	10 - 11	2033	0.0055	3	0.14
12	1	11 - 12	2034	0.0055	3	0.14
13	1	12 - 13	2035	0.0055	3	0.14
14	1	13 - 14	2036	0.0055	3	0.14
15	1	14 - 15	2037	0.0055	3	0.14
16	1	15 - 16	2038	0.0055	3	0.14
17	1	16-17	2039	0.0055	1	0.02
18	1	17-18	2040	0.0055	1	0.02
19	1	18-19	2041	0.0055	1	0.02
20	1	19-20	2042	0.0055	1	0.02
21	1	20-21	2043	0.0055	1	0.02
22	1	21-22	2044	0.0055	1	0.02
23	1	22-23	2045	0.0055	1	0.02
24	1	23-24	2046	0.0055	1	0.02
25	1	24-25	2047	0.0055	1	0.02
26	1	25-26	2048	0.0055	1	0.02
27	1	26-27	2049	0.0055	1	0.02
28	1	27-28	2050	0.0055	1	0.02
29	1	28-29	2051	0.0055	1	0.02
30	1	29-30	2052	0.0055	1	0.02
Total Increased Cancer Risk						**1.64**

* Third trimester of pregnancy

Maximum	
Hazard Index	**Total PM2.5**
0.0011	0.0055

Operation Risk Calculations – Residential

Project Traffic (Option 1)

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 1 Project Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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 =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
3	1	2 - 3	2025	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
4	1	3 - 4	2026	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
5	1	4 - 5	2027	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
6	1	5 - 6	2028	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00
7	1	6 - 7	2029	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
8	1	7 - 8	2030	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
9	1	8 - 9	2031	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
10	1	9 - 10	2032	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
11	1	10 - 11	2033	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
12	1	11 - 12	2034	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
13	1	12 - 13	2035	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
14	1	13 - 14	2036	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
15	1	14 - 15	2037	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
16	1	15 - 16	2038	3	0.0001	0.0040	0.0056	0.003	0.001	0.0000	0.00
17	1	16-17	2039	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
18	1	17-18	2040	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
19	1	18-19	2041	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
20	1	19-20	2042	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
21	1	20-21	2043	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
22	1	21-22	2044	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
23	1	22-23	2045	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
24	1	23-24	2046	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
25	1	24-25	2047	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
26	1	25-26	2048	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
27	1	26-27	2049	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
28	1	27-28	2050	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
29	1	28-29	2051	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
30	1	29-30	2052	1	0.0001	0.0040	0.0056	0.000	0.000	0.0000	0.000
Total Increased Cancer Risk								0.03	0.007	0.001	**0.04**

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.00	0.01	0.01

* Third trimester of pregnancy

Project Traffic (Option 2)

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 2 Project Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	Maximum		
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG		Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000	0.00	0.01	0.01
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000			
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000			
3	1	2 - 3	2025	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000			
4	1	3 - 4	2026	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000			
5	1	4 - 5	2027	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000			
6	1	5 - 6	2028	3	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.000			
7	1	6 - 7	2029	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
8	1	7 - 8	2030	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
9	1	8 - 9	2031	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
10	1	9 - 10	2032	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
11	1	10 - 11	2033	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
12	1	11 - 12	2034	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
13	1	12 - 13	2035	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
14	1	13 - 14	2036	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
15	1	14 - 15	2037	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
16	1	15 - 16	2038	3	0.0001	0.0042	0.0059	0.003	0.001	0.0001	0.004			
17	1	16-17	2039	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
18	1	17-18	2040	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
19	1	18-19	2041	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
20	1	19-20	2042	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
21	1	20-21	2043	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
22	1	21-22	2044	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
23	1	22-23	2045	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
24	1	23-24	2046	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
25	1	24-25	2047	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
26	1	25-26	2048	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
27	1	26-27	2049	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
28	1	27-28	2050	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
29	1	28-29	2051	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
30	1	29-30	2052	1	0.0001	0.0042	0.0059	0.000	0.000	0.0000	0.000			
Total Increased Cancer Risk								0.03	0.007	0.001	**0.04**			

* Third trimester of pregnancy

Total Project Risks for Option 1 and Option 2 – Residential

Note: Unmitigated and Mitigated risks for Option 1 and 2 are provided due to the slight differences in traffic volume emissions

Option 1 -Unmitigated Project Risks

	2023	2024	2025	2026	2027	2028	2029-2052	2029-2052	2029-2052	2029-2052
3rd Trimester (10)	0.25	0	0	0	0	0	0	0	0	0
Infant (10)	1	1	0	0	0	0	0	0	0	0
Child (3)	0	0	1	1	1	1	10	10	10	10
Adult (1)	0	0	0	0	0	0	14	14	14	14

Receptor				2023	2024	2025	2026	2027	2028	2029-2052	2029-2052	2029-2052	2029-2052	2020	2021	2022	2023	2027	2028	Unmitigated Project Total Risk						
No.	UTM-X	UTM-Y	Flagpole	Construction						GEN	Roads	Roads	Roads	Construction						2023-2028	2026-2049	2026-2049	2026-2049	2026-2049	2026-2049	
(m)	(m)	(m)	Height (m)	DPM	DPM	DPM	DPM	DPM	DPM	DPM	DPM	Exhaust TOG	Evap TOG	Risk	Risk	Risk	Risk	Risk	Risk	Total Con Risk	GEN Risk	DPM Roads	Exhaust TOG Roads	EVAP TOG Roads	Total Road Risk	Total Risk
1	599738.37	4136332.11	1.5	0.02299	0.02032	0.01897	0.01895	0.01893	0.01052	0.00548	0.0001	0.00399	0.00561	4.09	3.34	0.49	0.49	0.49	0.27	9.17	1.64	0.030	0.007	0.001	0.037	10.84

Option 1 - Mitigated Project Risks

	2023	2024	2025	2026	2027	2028	2029-2052	2029-2052	2029-2052	2029-2052
3rd Trimester (10)	0.25	0	0	0	0	0	0	0	0	0
Infant (10)	1	1	0	0	0	0	0	0	0	0
Child (3)	0	0	1	1	1	1	10	10	10	10
Adult (1)	0	0	0	0	0	0	14	14	14	14

Receptor				2023	2024	2025	2026	2027	2028	2029	2029	2029	2029	2020	2021	2022	2023	2027	2028	Mitigated Project Total Risk						
No.	UTM-X	UTM-Y	Flagpole	Construction						GEN	Roads	Roads	Roads	Construction						2023-2028	2026-2049	2026-2049	2026-2049	2026-2049	2026-2049	
(m)	(m)	(m)	Height (m)	DPM	DPM	DPM	DPM	DPM	DPM	DPM	DPM	Exhaust TOG	Evap TOG	Risk	Risk	Risk	Risk	Risk	Risk	Total Con Risk	GEN Risk	DPM Roads	Exhaust TOG Roads	EVAP TOG Roads	Total Road Risk	Total Risk
1	599738.37	4136332.11	1.5	0.00894	0.01175	0.0117	0.01168	0.01166	0.00786	0.00548	0.0001	0.00399	0.00561	1.59	1.93	0.30	0.30	0.30	0.20	4.63	1.64	0.03	0.01	0.00	0.04	6.30

Option 2 -Unmitigated Project Risks

	2023	2024	2025	2026	2027	2028	2029-2052	2029-2052	2029-2052	2029-2052
3rd Trimester (10)	0.25	0	0	0	0	0	0	0	0	0
Infant (10)	1	1	0	0	0	0	0	0	0	0
Child (3)	0	0	1	1	1	1	10	10	10	10
Adult (1)	0	0	0	0	0	0	14	14	14	14

Receptor				2023	2024	2025	2026	2027	2028	2029-2052	2029-2052	2029-2052	2029-2052	2020	2021	2022	2023	2027	2028	Unmitigated City's Project Total Risk						
No.	UTM-X	UTM-Y	Flagpole	Construction						GEN	Roads	Roads	Roads	Construction						2023-2028	2029-2052	2029-2052	2029-2052	2029-2052	2029-2052	
(m)	(m)	(m)	Height (m)	DPM	DPM	DPM	DPM	DPM	DPM	DPM	DPM	Exhaust TOG	Evap TOG	Risk	Risk	Risk	Risk	Risk	Risk	Total Con Risk	GEN Risk	DPM Roads	Exhaust TOG Roads	EVAP TOG Roads	Total Road Risk	Total Risk
1	599738.37	4136332.11	1.5	0.02299	0.02032	0.01897	0.01895	0.01893	0.01052	0.00548	0.00011	0.00417	0.00587	4.09	3.34	0.49	0.49	0.49	0.27	9.17	1.64	0.033	0.007	0.001	0.041	10.85

Option 2 - Mitigated Project Risks

	2023	2024	2025	2026	2027	2028	2029-2052	2029-2052	2029-2052	2029-2052
3rd Trimester (10)	0.25	0	0	0	0	0	0	0	0	0
Infant (10)	1	1	0	0	0	0	0	0	0	0
Child (3)	0	0	1	1	1	1	10	10	10	10
Adult (1)	0	0	0	0	0	0	14	14	14	14

Receptor				2023	2024	2025	2026	2027	2028	2029	2029	2029	2029	2020	2021	2022	2023	2027	2028	Mitigated City's Project Total Risk						
No.	UTM-X	UTM-Y	Flagpole	Construction						GEN	Roads	Roads	Roads	Construction						2023-2028	2029-2052	2029-2052	2029-2052	2029-2052	2029-2052	
(m)	(m)	(m)	Height (m)	DPM	DPM	DPM	DPM	DPM	DPM	DPM	DPM	Exhaust TOG	Evap TOG	Risk	Risk	Risk	Risk	Risk	Risk	Total Con Risk	GEN Risk	DPM Roads	Exhaust TOG Roads	EVAP TOG Roads	Total Road Risk	Total Risk
1	599738.37	4136332.11	1.5	0.00894	0.01175	0.0117	0.01168	0.01166	0.00786	0.00548	0.00011	0.00417	0.00587	1.59	1.93	0.30	0.30	0.30	0.20	4.63	1.64	0.03	0.01	0.00	0.041	6.31

ROADWAY DISPERSON MODELING INPUTS & CALCULATIONS

CT-EMFAC2017 Emission Factors

```
           File Name:   Santa Clara (SF) - 2030 - Annual.EF
CT-EMFAC2017 Version:   1.0.2.27401
            Run Date:   6/26/2020 12:20:47 AM
                Area:   Santa Clara (SF)
       Analysis Year:   2030
              Season:   Annual

======================================================================

Vehicle Category        VMT Fraction            Diesel VMT Fraction     Gas VMT Fraction
                        Across Category         Within Category         Within Category
         Truck 1             0.027                   0.525                   0.475
         Truck 2             0.037                   0.932                   0.051
       Non-Truck             0.936                   0.015                   0.941

======================================================================

               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     10 mph     15 mph     20 mph     25 mph     30 mph     35 mph     40 mph
                PM2.5   0.004355   0.002997   0.002176   0.001680   0.001390   0.001236   0.001179
                  TOG   0.097278   0.064448   0.044938   0.033974   0.027168   0.022780   0.020015
            Diesel PM   0.000773   0.000620   0.000512   0.000453   0.000436   0.000454   0.000504
                 DEOG   0.013497   0.006981   0.003374   0.002309   0.001819   0.001489   0.001268

======================================================================

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

       Pollutant Name   Emission Factor
                  TOG          1.054167

======================================================================

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

       Pollutant Name   Emission Factor
                PM2.5          0.002196

======================================================================

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

       Pollutant Name   Emission Factor
                PM2.5          0.017363

======================================================================

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

       Pollutant Name   Emission Factor
                PM2.5          0.016912

============================END=======================================
```

Traffic Volumes for Roadway Modeling

San Jose Flea Market - Road Segments for Modeling & ADTs

2030 Project Trips

Mabury Road Modeling - 35 mph

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	513	2,337	2,850
WB Mabury	690	2,542	3,232
Total	1,203	4,879	6,082

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	535	2,536	3,071
WB Mabury	499	2,296	2,795
Total	1,034	4,832	5,866

Berryessa Road - 40 mph

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	1,874	2,452	4,326
WB Berryessa	1,901	2,801	4,702
Total	3,775	5,253	9,028

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	1,950	2,725	4,675
WB Berryessa	2,133	2,765	4,898
Total	4,083	5,490	9,573

2030 Total with Project Trips

Mabury Road Modeling

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	14,664	18,408	33,072
WB Mabury	18,636	23,082	41,718
Total	33,300	41,490	74,790

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	13,752	17,376	31,128
WB Mabury	18,012	21,636	39,648
Total	31,764	39,012	70,776

Berryessa Road

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	17,994	19,560	37,554
WB Berryessa	21,540	23,646	45,186
Total	39,534	43,206	82,740

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	15,810	17,442	33,252
WB Berryessa	19,368	21,552	40,920
Total	35,178	38,994	74,172

PROPOSED PROJECT ROAD EMISSIONS

Mabury Road

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_DPM	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	43.7	3.4	35	513
EBMWS_DPM	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	43.7	3.4	35	2,337
									Total	2,850

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	20	6.61E-07	9	6.45%	33	1.07E-06	17	5.61%	29	9.33E-07
2	2.63%	14	4.38E-07	10	7.45%	38	1.24E-06	18	3.20%	16	5.32E-07
3	2.86%	15	4.75E-07	11	6.39%	33	1.06E-06	19	2.19%	11	3.64E-07
4	3.25%	17	5.40E-07	12	7.01%	36	1.17E-06	20	0.85%	4	1.41E-07
5	2.18%	11	3.63E-07	13	6.28%	32	1.04E-06	21	3.09%	16	5.13E-07
6	3.30%	17	5.50E-07	14	6.17%	32	1.03E-06	22	4.26%	22	7.09E-07
7	6.05%	31	1.01E-06	15	5.10%	26	8.49E-07	23	2.58%	13	4.28E-07
8	4.43%	23	7.37E-07	16	3.87%	20	6.44E-07	24	0.84%	4	1.40E-07
								Total		513	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	93	2.51E-06	9	6.45%	151	4.07E-06	17	5.61%	131	3.54E-06
2	2.63%	62	1.66E-06	10	7.45%	174	4.70E-06	18	3.20%	75	2.02E-06
3	2.86%	67	1.80E-06	11	6.39%	149	4.03E-06	19	2.19%	51	1.38E-06
4	3.25%	76	2.05E-06	12	7.01%	164	4.42E-06	20	0.85%	20	5.34E-07
5	2.18%	51	1.38E-06	13	6.28%	147	3.96E-06	21	3.09%	72	1.95E-06
6	3.30%	77	2.08E-06	14	6.17%	144	3.89E-06	22	4.26%	100	2.69E-06
7	6.05%	141	3.82E-06	15	5.10%	119	3.22E-06	23	2.58%	60	1.62E-06
8	4.43%	104	2.79E-06	16	3.87%	90	2.44E-06	24	0.84%	20	5.30E-07
								Total		2,337	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_PM25	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	513
EBMWS_PM25	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,337
									Total	2,850

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	5.19E-07	9	7.11%	36	3.22E-06	17	7.39%	38	3.35E-06
2	0.42%	2	1.90E-07	10	4.39%	23	1.99E-06	18	8.18%	42	3.71E-06
3	0.40%	2	1.83E-07	11	4.66%	24	2.11E-06	19	5.70%	29	2.58E-06
4	0.26%	1	1.16E-07	12	5.89%	30	2.67E-06	20	4.28%	22	1.94E-06
5	0.49%	3	2.24E-07	13	6.15%	32	2.79E-06	21	3.25%	17	1.47E-06
6	0.90%	5	4.09E-07	14	6.04%	31	2.73E-06	22	3.30%	17	1.49E-06
7	3.79%	19	1.72E-06	15	7.01%	36	3.18E-06	23	2.46%	13	1.11E-06
8	7.76%	40	3.52E-06	16	7.14%	37	3.23E-06	24	1.86%	10	8.45E-07
								Total		513	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	1.97E-06	9	7.11%	166	1.22E-05	17	7.39%	173	1.27E-05
2	0.42%	10	7.21E-07	10	4.39%	103	7.54E-06	18	8.18%	191	1.41E-05
3	0.40%	9	6.93E-07	11	4.66%	109	8.01E-06	19	5.70%	133	9.79E-06
4	0.26%	6	4.41E-07	12	5.89%	138	1.01E-05	20	4.28%	100	7.35E-06
5	0.49%	12	8.48E-07	13	6.15%	144	1.06E-05	21	3.25%	76	5.59E-06
6	0.90%	21	1.55E-06	14	6.04%	141	1.04E-05	22	3.30%	77	5.67E-06
7	3.79%	89	6.50E-06	15	7.01%	164	1.20E-05	23	2.46%	58	4.23E-06
8	7.76%	181	1.33E-05	16	7.14%	167	1.23E-05	24	1.86%	44	3.20E-06
								Total		2,337	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEXH	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	513
EBMWS_TEXH	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,337
									Total	2,850

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	8.95E-06	9	7.11%	36	5.55E-05	17	7.39%	38	5.77E-05
2	0.42%	2	3.27E-06	10	4.39%	23	3.42E-05	18	8.18%	42	6.38E-05
3	0.40%	2	3.15E-06	11	4.66%	24	3.64E-05	19	5.70%	29	4.45E-05
4	0.26%	1	2.00E-06	12	5.89%	30	4.59E-05	20	4.28%	22	3.34E-05
5	0.49%	3	3.85E-06	13	6.15%	32	4.80E-05	21	3.25%	17	2.54E-05
6	0.90%	5	7.04E-06	14	6.04%	31	4.71E-05	22	3.30%	17	2.57E-05
7	3.79%	19	2.95E-05	15	7.01%	36	5.47E-05	23	2.46%	13	1.92E-05
8	7.76%	40	6.06E-05	16	7.14%	37	5.57E-05	24	1.86%	10	1.45E-05
								Total		513	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	3.39E-05	9	7.11%	166	2.10E-04	17	7.39%	173	2.19E-04
2	0.42%	10	1.24E-05	10	4.39%	103	1.30E-04	18	8.18%	191	2.42E-04
3	0.40%	9	1.19E-05	11	4.66%	109	1.38E-04	19	5.70%	133	1.69E-04
4	0.26%	6	7.60E-06	12	5.89%	138	1.74E-04	20	4.28%	100	1.27E-04
5	0.49%	12	1.46E-05	13	6.15%	144	1.82E-04	21	3.25%	76	9.62E-05
6	0.90%	21	2.67E-05	14	6.04%	141	1.79E-04	22	3.30%	77	9.76E-05
7	3.79%	89	1.12E-04	15	7.01%	164	2.07E-04	23	2.46%	58	7.28E-05
8	7.76%	181	2.30E-04	16	7.14%	167	2.11E-04	24	1.86%	44	5.52E-05
								Total		2,337	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEVAP	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	513
EBMWS_TEVAP	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,337
									Total	2,850

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	1.27E-05	9	7.11%	36	7.85E-05	17	7.39%	38	8.16E-05
2	0.42%	2	4.63E-06	10	4.39%	23	4.84E-05	18	8.18%	42	9.03E-05
3	0.40%	2	4.45E-06	11	4.66%	24	5.14E-05	19	5.70%	29	6.29E-05
4	0.26%	1	2.83E-06	12	5.89%	30	6.50E-05	20	4.28%	22	4.72E-05
5	0.49%	3	5.45E-06	13	6.15%	32	6.79E-05	21	3.25%	17	3.59E-05
6	0.90%	5	9.96E-06	14	6.04%	31	6.66E-05	22	3.30%	17	3.64E-05
7	3.79%	19	4.18E-05	15	7.01%	36	7.74E-05	23	2.46%	13	2.72E-05
8	7.76%	40	8.57E-05	16	7.14%	37	7.88E-05	24	1.86%	10	2.06E-05
								Total		513	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	4.80E-05	9	7.11%	166	2.98E-04	17	7.39%	173	3.09E-04
2	0.42%	10	1.76E-05	10	4.39%	103	1.84E-04	18	8.18%	191	3.42E-04
3	0.40%	9	1.69E-05	11	4.66%	109	1.95E-04	19	5.70%	133	2.39E-04
4	0.26%	6	1.07E-05	12	5.89%	138	2.46E-04	20	4.28%	100	1.79E-04
5	0.49%	12	2.07E-05	13	6.15%	144	2.57E-04	21	3.25%	76	1.36E-04
6	0.90%	21	3.78E-05	14	6.04%	141	2.53E-04	22	3.30%	77	1.38E-04
7	3.79%	89	1.59E-04	15	7.01%	164	2.93E-04	23	2.46%	58	1.03E-04
8	7.76%	181	3.25E-04	16	7.14%	167	2.99E-04	24	1.86%	44	7.80E-05
								Total		2,337	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_FUG	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	513
EBMWS_FUG	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,337
									Total	2,850

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	1.53E-05	9	7.11%	36	9.51E-05	17	7.39%	38	9.88E-05
2	0.42%	2	5.61E-06	10	4.39%	23	5.86E-05	18	8.18%	42	1.09E-04
3	0.40%	2	5.39E-06	11	4.66%	24	6.23E-05	19	5.70%	29	7.62E-05
4	0.26%	1	3.43E-06	12	5.89%	30	7.87E-05	20	4.28%	22	5.72E-05
5	0.49%	3	6.60E-06	13	6.15%	32	8.22E-05	21	3.25%	17	4.35E-05
6	0.90%	5	1.21E-05	14	6.04%	31	8.07E-05	22	3.30%	17	4.41E-05
7	3.79%	19	5.06E-05	15	7.01%	36	9.37E-05	23	2.46%	13	3.29E-05
8	7.76%	40	1.04E-04	16	7.14%	37	9.55E-05	24	1.86%	10	2.49E-05
								Total		513	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	27	5.81E-05	9	7.11%	166	3.61E-04	17	7.39%	173	3.75E-04
2	0.42%	10	2.13E-05	10	4.39%	103	2.22E-04	18	8.18%	191	4.15E-04
3	0.40%	9	2.04E-05	11	4.66%	109	2.36E-04	19	5.70%	133	2.89E-04
4	0.26%	6	1.30E-05	12	5.89%	138	2.98E-04	20	4.28%	100	2.17E-04
5	0.49%	12	2.50E-05	13	6.15%	144	3.12E-04	21	3.25%	76	1.65E-04
6	0.90%	21	4.57E-05	14	6.04%	141	3.06E-04	22	3.30%	77	1.67E-04
7	3.79%	89	1.92E-04	15	7.01%	164	3.55E-04	23	2.46%	58	1.25E-04
8	7.76%	181	3.93E-04	16	7.14%	167	3.62E-04	24	1.86%	44	9.45E-05
								Total		2,337	

San Jose Flea Market - Proposed Project Traffic - Roadway Emissions
Westbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_DPM	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	43.7	3.4	35	690
WBMWS_DPM	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	43.7	3.4	35	2,542
									Total	3,232

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	27	8.86E-07	9	6.45%	44	1.44E-06	17	5.61%	39	1.25E-06
2	2.63%	18	5.87E-07	10	7.45%	51	1.66E-06	18	3.20%	22	7.13E-07
3	2.86%	20	6.37E-07	11	6.39%	44	1.42E-06	19	2.19%	15	4.88E-07
4	3.25%	22	7.24E-07	12	7.01%	48	1.56E-06	20	0.85%	6	1.89E-07
5	2.18%	15	4.87E-07	13	6.28%	43	1.40E-06	21	3.09%	21	6.88E-07
6	3.30%	23	7.36E-07	14	6.17%	43	1.37E-06	22	4.26%	29	9.50E-07
7	6.05%	42	1.35E-06	15	5.10%	35	1.14E-06	23	2.58%	18	5.74E-07
8	4.43%	31	9.88E-07	16	3.87%	27	8.63E-07	24	0.84%	6	1.87E-07
								Total		690	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	101	2.75E-06	9	6.45%	164	4.47E-06	17	5.61%	143	3.88E-06
2	2.63%	67	1.82E-06	10	7.45%	189	5.16E-06	18	3.20%	81	2.22E-06
3	2.86%	73	1.98E-06	11	6.39%	162	4.43E-06	19	2.19%	56	1.52E-06
4	3.25%	83	2.25E-06	12	7.01%	178	4.85E-06	20	0.85%	22	5.87E-07
5	2.18%	56	1.51E-06	13	6.28%	160	4.35E-06	21	3.09%	78	2.14E-06
6	3.30%	84	2.29E-06	14	6.17%	157	4.27E-06	22	4.26%	108	2.95E-06
7	6.05%	154	4.19E-06	15	5.10%	130	3.53E-06	23	2.58%	65	1.78E-06
8	4.43%	113	3.07E-06	16	3.87%	98	2.68E-06	24	0.84%	21	5.82E-07
								Total		2,542	

San Jose Flea Market - Proposed Project Traffic - Roadway Emissions
Westbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

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
WBMES_PM25	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	690
WBMWS_PM25	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,542
									Total	3,232

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	6.96E-07	9	7.11%	49	4.32E-06	17	7.39%	51	4.49E-06
2	0.42%	3	2.55E-07	10	4.39%	30	2.66E-06	18	8.18%	56	4.97E-06
3	0.40%	3	2.45E-07	11	4.66%	32	2.83E-06	19	5.70%	39	3.46E-06
4	0.26%	2	1.56E-07	12	5.89%	41	3.57E-06	20	4.28%	30	2.60E-06
5	0.49%	3	3.00E-07	13	6.15%	42	3.73E-06	21	3.25%	22	1.97E-06
6	0.90%	6	5.48E-07	14	6.04%	42	3.66E-06	22	3.30%	23	2.00E-06
7	3.79%	26	2.30E-06	15	7.01%	48	4.26E-06	23	2.46%	17	1.49E-06
8	7.76%	54	4.71E-06	16	7.14%	49	4.34E-06	24	1.86%	13	1.13E-06
								Total		690	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	2.16E-06	9	7.11%	181	1.34E-05	17	7.39%	188	1.39E-05
2	0.42%	11	7.91E-07	10	4.39%	112	8.28E-06	18	8.18%	208	1.54E-05
3	0.40%	10	7.61E-07	11	4.66%	118	8.79E-06	19	5.70%	145	1.07E-05
4	0.26%	7	4.84E-07	12	5.89%	150	1.11E-05	20	4.28%	109	8.07E-06
5	0.49%	13	9.31E-07	13	6.15%	156	1.16E-05	21	3.25%	83	6.13E-06
6	0.90%	23	1.70E-06	14	6.04%	153	1.14E-05	22	3.30%	84	6.22E-06
7	3.79%	96	7.14E-06	15	7.01%	178	1.32E-05	23	2.46%	63	4.64E-06
8	7.76%	197	1.46E-05	16	7.14%	182	1.35E-05	24	1.86%	47	3.52E-06
								Total		2,542	

San Jose Flea Market - Proposed Project Traffic - Roadway Emissions
Westbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEXH	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	690
WBMWS_TEXH	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,542
									Total	3,232

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.20E-05	9	7.11%	49	7.44E-05	17	7.39%	51	7.73E-05
2	0.42%	3	4.39E-06	10	4.39%	30	4.59E-05	18	8.18%	56	8.56E-05
3	0.40%	3	4.22E-06	11	4.66%	32	4.87E-05	19	5.70%	39	5.96E-05
4	0.26%	2	2.69E-06	12	5.89%	41	6.16E-05	20	4.28%	30	4.47E-05
5	0.49%	3	5.16E-06	13	6.15%	42	6.43E-05	21	3.25%	22	3.40E-05
6	0.90%	6	9.44E-06	14	6.04%	42	6.31E-05	22	3.30%	23	3.45E-05
7	3.79%	26	3.96E-05	15	7.01%	48	7.33E-05	23	2.46%	17	2.57E-05
8	7.76%	54	8.12E-05	16	7.14%	49	7.47E-05	24	1.86%	13	1.95E-05
								Total		690	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	3.73E-05	9	7.11%	181	2.31E-04	17	7.39%	188	2.40E-04
2	0.42%	11	1.36E-05	10	4.39%	112	1.43E-04	18	8.18%	208	2.66E-04
3	0.40%	10	1.31E-05	11	4.66%	118	1.51E-04	19	5.70%	145	1.85E-04
4	0.26%	7	8.34E-06	12	5.89%	150	1.91E-04	20	4.28%	109	1.39E-04
5	0.49%	13	1.60E-05	13	6.15%	156	2.00E-04	21	3.25%	83	1.06E-04
6	0.90%	23	2.93E-05	14	6.04%	153	1.96E-04	22	3.30%	84	1.07E-04
7	3.79%	96	1.23E-04	15	7.01%	178	2.28E-04	23	2.46%	63	8.00E-05
8	7.76%	197	2.52E-04	16	7.14%	182	2.32E-04	24	1.86%	47	6.06E-05
								Total		2,542	

San Jose Flea Market - Proposed Project Traffic - Roadway Emissions
Westbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEVAP	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	690
WBMWS_TEVAP	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,542
									Total	3,232

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.70E-05	9	7.11%	49	1.05E-04	17	7.39%	51	1.09E-04
2	0.42%	3	6.21E-06	10	4.39%	30	6.49E-05	18	8.18%	56	1.21E-04
3	0.40%	3	5.97E-06	11	4.66%	32	6.89E-05	19	5.70%	39	8.43E-05
4	0.26%	2	3.80E-06	12	5.89%	41	8.71E-05	20	4.28%	30	6.33E-05
5	0.49%	3	7.30E-06	13	6.15%	42	9.10E-05	21	3.25%	22	4.81E-05
6	0.90%	6	1.33E-05	14	6.04%	42	8.93E-05	22	3.30%	23	4.88E-05
7	3.79%	26	5.60E-05	15	7.01%	48	1.04E-04	23	2.46%	17	3.64E-05
8	7.76%	54	1.15E-04	16	7.14%	49	1.06E-04	24	1.86%	13	2.76E-05
								Total		690	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	5.27E-05	9	7.11%	181	3.27E-04	17	7.39%	188	3.40E-04
2	0.42%	11	1.93E-05	10	4.39%	112	2.02E-04	18	8.18%	208	3.76E-04
3	0.40%	10	1.85E-05	11	4.66%	118	2.14E-04	19	5.70%	145	2.62E-04
4	0.26%	7	1.18E-05	12	5.89%	150	2.71E-04	20	4.28%	109	1.97E-04
5	0.49%	13	2.27E-05	13	6.15%	156	2.83E-04	21	3.25%	83	1.49E-04
6	0.90%	23	4.15E-05	14	6.04%	153	2.77E-04	22	3.30%	84	1.52E-04
7	3.79%	96	1.74E-04	15	7.01%	178	3.22E-04	23	2.46%	63	1.13E-04
8	7.76%	197	3.57E-04	16	7.14%	182	3.28E-04	24	1.86%	47	8.57E-05
								Total		2,542	

San Jose Flea Market - Proposed Project Traffic - Roadway Emissions
Westbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_FUG	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	690
WBMWS_FUG	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,542
									Total	3,232

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.05E-05	9	7.11%	49	1.27E-04	17	7.39%	51	1.32E-04
2	0.42%	3	7.52E-06	10	4.39%	30	7.86E-05	18	8.18%	56	1.47E-04
3	0.40%	3	7.22E-06	11	4.66%	32	8.35E-05	19	5.70%	39	1.02E-04
4	0.26%	2	4.60E-06	12	5.89%	41	1.05E-04	20	4.28%	30	7.66E-05
5	0.49%	3	8.84E-06	13	6.15%	42	1.10E-04	21	3.25%	22	5.82E-05
6	0.90%	6	1.62E-05	14	6.04%	42	1.08E-04	22	3.30%	23	5.91E-05
7	3.79%	26	6.78E-05	15	7.01%	48	1.26E-04	23	2.46%	17	4.41E-05
8	7.76%	54	1.39E-04	16	7.14%	49	1.28E-04	24	1.86%	13	3.34E-05
								Total		690	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	6.38E-05	9	7.11%	181	3.96E-04	17	7.39%	188	4.11E-04
2	0.42%	11	2.34E-05	10	4.39%	112	2.44E-04	18	8.18%	208	4.55E-04
3	0.40%	10	2.24E-05	11	4.66%	118	2.59E-04	19	5.70%	145	3.17E-04
4	0.26%	7	1.43E-05	12	5.89%	150	3.28E-04	20	4.28%	109	2.38E-04
5	0.49%	13	2.75E-05	13	6.15%	156	3.42E-04	21	3.25%	83	1.81E-04
6	0.90%	23	5.02E-05	14	6.04%	153	3.36E-04	22	3.30%	84	1.84E-04
7	3.79%	96	2.11E-04	15	7.01%	178	3.90E-04	23	2.46%	63	1.37E-04
8	7.76%	197	4.32E-04	16	7.14%	182	3.97E-04	24	1.86%	47	1.04E-04
								Total		2,542	

Berryessa Road

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_DPM	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	43.7	3.4	40	1,874
EBBWS_DPM	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	43.7	3.4	40	2,452
									Total	4,326

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	74	3.89E-06	9	6.45%	121	6.31E-06	17	5.61%	105	5.49E-06
2	2.63%	49	2.58E-06	10	7.45%	140	7.30E-06	18	3.20%	60	3.13E-06
3	2.86%	54	2.80E-06	11	6.39%	120	6.26E-06	19	2.19%	41	2.14E-06
4	3.25%	61	3.18E-06	12	7.01%	131	6.86E-06	20	0.85%	16	8.29E-07
5	2.18%	41	2.14E-06	13	6.28%	118	6.15E-06	21	3.09%	58	3.02E-06
6	3.30%	62	3.23E-06	14	6.17%	116	6.04E-06	22	4.26%	80	4.17E-06
7	6.05%	113	5.93E-06	15	5.10%	96	5.00E-06	23	2.58%	48	2.52E-06
8	4.43%	83	4.34E-06	16	3.87%	73	3.79E-06	24	0.84%	16	8.22E-07
								Total		1,874	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	97	5.15E-06	9	6.45%	158	8.36E-06	17	5.61%	137	7.27E-06
2	2.63%	65	3.41E-06	10	7.45%	183	9.66E-06	18	3.20%	78	4.15E-06
3	2.86%	70	3.70E-06	11	6.39%	157	8.29E-06	19	2.19%	54	2.84E-06
4	3.25%	80	4.21E-06	12	7.01%	172	9.08E-06	20	0.85%	21	1.10E-06
5	2.18%	54	2.83E-06	13	6.28%	154	8.14E-06	21	3.09%	76	4.00E-06
6	3.30%	81	4.28E-06	14	6.17%	151	7.99E-06	22	4.26%	105	5.53E-06
7	6.05%	148	7.85E-06	15	5.10%	125	6.62E-06	23	2.58%	63	3.34E-06
8	4.43%	109	5.74E-06	16	3.87%	95	5.02E-06	24	0.84%	21	1.09E-06
								Total		2,452	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

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
EBBES_PM25	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,874
EBBWS_PM25	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,452
									Total	4,326

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	21	2.63E-06	9	7.11%	133	1.63E-05	17	7.39%	139	1.69E-05
2	0.42%	8	9.61E-07	10	4.39%	82	1.01E-05	18	8.18%	153	1.87E-05
3	0.40%	8	9.24E-07	11	4.66%	87	1.07E-05	19	5.70%	107	1.31E-05
4	0.26%	5	5.88E-07	12	5.89%	110	1.35E-05	20	4.28%	80	9.80E-06
5	0.49%	9	1.13E-06	13	6.15%	115	1.41E-05	21	3.25%	61	7.45E-06
6	0.90%	17	2.07E-06	14	6.04%	113	1.38E-05	22	3.30%	62	7.56E-06
7	3.79%	71	8.68E-06	15	7.01%	131	1.61E-05	23	2.46%	46	5.64E-06
8	7.76%	145	1.78E-05	16	7.14%	134	1.64E-05	24	1.86%	35	4.27E-06
								Total		1,874	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	3.48E-06	9	7.11%	174	2.16E-05	17	7.39%	181	2.24E-05
2	0.42%	10	1.27E-06	10	4.39%	108	1.33E-05	18	8.18%	201	2.48E-05
3	0.40%	10	1.22E-06	11	4.66%	114	1.41E-05	19	5.70%	140	1.73E-05
4	0.26%	6	7.79E-07	12	5.89%	144	1.79E-05	20	4.28%	105	1.30E-05
5	0.49%	12	1.50E-06	13	6.15%	151	1.87E-05	21	3.25%	80	9.86E-06
6	0.90%	22	2.74E-06	14	6.04%	148	1.83E-05	22	3.30%	81	1.00E-05
7	3.79%	93	1.15E-05	15	7.01%	172	2.13E-05	23	2.46%	60	7.47E-06
8	7.76%	190	2.35E-05	16	7.14%	175	2.17E-05	24	1.86%	46	5.66E-06
								Total		2,452	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEXH	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,874
EBBWS_TEXH	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,452
									Total	4,326

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	21	4.18E-05	9	7.11%	133	2.59E-04	17	7.39%	139	2.69E-04
2	0.42%	8	1.53E-05	10	4.39%	82	1.60E-04	18	8.18%	153	2.98E-04
3	0.40%	8	1.47E-05	11	4.66%	87	1.70E-04	19	5.70%	107	2.08E-04
4	0.26%	5	9.35E-06	12	5.89%	110	2.14E-04	20	4.28%	80	1.56E-04
5	0.49%	9	1.80E-05	13	6.15%	115	2.24E-04	21	3.25%	61	1.18E-04
6	0.90%	17	3.29E-05	14	6.04%	113	2.20E-04	22	3.30%	62	1.20E-04
7	3.79%	71	1.38E-04	15	7.01%	131	2.55E-04	23	2.46%	46	8.97E-05
8	7.76%	145	2.83E-04	16	7.14%	134	2.60E-04	24	1.86%	35	6.79E-05
								Total		1,874	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	5.53E-05	9	7.11%	174	3.43E-04	17	7.39%	181	3.57E-04
2	0.42%	10	2.02E-05	10	4.39%	108	2.12E-04	18	8.18%	201	3.95E-04
3	0.40%	10	1.95E-05	11	4.66%	114	2.25E-04	19	5.70%	140	2.75E-04
4	0.26%	6	1.24E-05	12	5.89%	144	2.84E-04	20	4.28%	105	2.06E-04
5	0.49%	12	2.38E-05	13	6.15%	151	2.97E-04	21	3.25%	80	1.57E-04
6	0.90%	22	4.35E-05	14	6.04%	148	2.91E-04	22	3.30%	81	1.59E-04
7	3.79%	93	1.83E-04	15	7.01%	172	3.38E-04	23	2.46%	60	1.19E-04
8	7.76%	190	3.74E-04	16	7.14%	175	3.44E-04	24	1.86%	46	8.99E-05
								Total		2,452	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEVAP	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,874
EBBWS_TEVAP	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,452
									Total	4,326

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	21	5.87E-05	9	7.11%	133	3.64E-04	17	7.39%	139	3.78E-04
2	0.42%	8	2.15E-05	10	4.39%	82	2.25E-04	18	8.18%	153	4.19E-04
3	0.40%	8	2.07E-05	11	4.66%	87	2.39E-04	19	5.70%	107	2.92E-04
4	0.26%	5	1.32E-05	12	5.89%	110	3.01E-04	20	4.28%	80	2.19E-04
5	0.49%	9	2.53E-05	13	6.15%	115	3.15E-04	21	3.25%	61	1.67E-04
6	0.90%	17	4.62E-05	14	6.04%	113	3.09E-04	22	3.30%	62	1.69E-04
7	3.79%	71	1.94E-04	15	7.01%	131	3.59E-04	23	2.46%	46	1.26E-04
8	7.76%	145	3.97E-04	16	7.14%	134	3.66E-04	24	1.86%	35	9.55E-05
								Total		1,874	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	7.77E-05	9	7.11%	174	4.82E-04	17	7.39%	181	5.01E-04
2	0.42%	10	2.85E-05	10	4.39%	108	2.98E-04	18	8.18%	201	5.55E-04
3	0.40%	10	2.73E-05	11	4.66%	114	3.16E-04	19	5.70%	140	3.86E-04
4	0.26%	6	1.74E-05	12	5.89%	144	3.99E-04	20	4.28%	105	2.90E-04
5	0.49%	12	3.35E-05	13	6.15%	151	4.17E-04	21	3.25%	80	2.20E-04
6	0.90%	22	6.12E-05	14	6.04%	148	4.09E-04	22	3.30%	81	2.24E-04
7	3.79%	93	2.57E-04	15	7.01%	172	4.75E-04	23	2.46%	60	1.67E-04
8	7.76%	190	5.26E-04	16	7.14%	175	4.84E-04	24	1.86%	46	1.26E-04
								Total		2,452	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Eastbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_FUG	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,874
EBBWS_FUG	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,452
									Total	4,326

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	21	8.13E-05	9	7.11%	133	5.04E-04	17	7.39%	139	5.24E-04
2	0.42%	8	2.97E-05	10	4.39%	82	3.11E-04	18	8.18%	153	5.80E-04
3	0.40%	8	2.86E-05	11	4.66%	87	3.30E-04	19	5.70%	107	4.04E-04
4	0.26%	5	1.82E-05	12	5.89%	110	4.17E-04	20	4.28%	80	3.03E-04
5	0.49%	9	3.50E-05	13	6.15%	115	4.36E-04	21	3.25%	61	2.30E-04
6	0.90%	17	6.40E-05	14	6.04%	113	4.28E-04	22	3.30%	62	2.34E-04
7	3.79%	71	2.68E-04	15	7.01%	131	4.97E-04	23	2.46%	46	1.74E-04
8	7.76%	145	5.50E-04	16	7.14%	134	5.06E-04	24	1.86%	35	1.32E-04
								Total		1,874	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	28	1.08E-04	9	7.11%	174	6.67E-04	17	7.39%	181	6.94E-04
2	0.42%	10	3.94E-05	10	4.39%	108	4.12E-04	18	8.18%	201	7.68E-04
3	0.40%	10	3.78E-05	11	4.66%	114	4.37E-04	19	5.70%	140	5.35E-04
4	0.26%	6	2.41E-05	12	5.89%	144	5.52E-04	20	4.28%	105	4.01E-04
5	0.49%	12	4.63E-05	13	6.15%	151	5.77E-04	21	3.25%	80	3.05E-04
6	0.90%	22	8.47E-05	14	6.04%	148	5.66E-04	22	3.30%	81	3.10E-04
7	3.79%	93	3.55E-04	15	7.01%	172	6.58E-04	23	2.46%	60	2.31E-04
8	7.76%	190	7.28E-04	16	7.14%	175	6.70E-04	24	1.86%	46	1.75E-04
								Total		2,452	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Westbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_DPM	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	43.7	3.4	40	1,901
WBBWS_DPM	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	43.7	3.4	40	2,801
									Total	4,702

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	76	3.93E-06	9	6.45%	123	6.37E-06	17	5.61%	107	5.54E-06
2	2.63%	50	2.60E-06	10	7.45%	142	7.36E-06	18	3.20%	61	3.16E-06
3	2.86%	54	2.82E-06	11	6.39%	121	6.31E-06	19	2.19%	42	2.16E-06
4	3.25%	62	3.21E-06	12	7.01%	133	6.92E-06	20	0.85%	16	8.37E-07
5	2.18%	42	2.16E-06	13	6.28%	119	6.20E-06	21	3.09%	59	3.05E-06
6	3.30%	63	3.26E-06	14	6.17%	117	6.09E-06	22	4.26%	81	4.21E-06
7	6.05%	115	5.98E-06	15	5.10%	97	5.04E-06	23	2.58%	49	2.54E-06
8	4.43%	84	4.38E-06	16	3.87%	74	3.82E-06	24	0.84%	16	8.30E-07
								Total		1,901	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	111	5.89E-06	9	6.45%	181	9.55E-06	17	5.61%	157	8.31E-06
2	2.63%	74	3.90E-06	10	7.45%	209	1.10E-05	18	3.20%	90	4.74E-06
3	2.86%	80	4.23E-06	11	6.39%	179	9.47E-06	19	2.19%	61	3.25E-06
4	3.25%	91	4.81E-06	12	7.01%	196	1.04E-05	20	0.85%	24	1.26E-06
5	2.18%	61	3.24E-06	13	6.28%	176	9.30E-06	21	3.09%	86	4.57E-06
6	3.30%	93	4.90E-06	14	6.17%	173	9.14E-06	22	4.26%	119	6.32E-06
7	6.05%	170	8.97E-06	15	5.10%	143	7.56E-06	23	2.58%	72	3.82E-06
8	4.43%	124	6.57E-06	16	3.87%	108	5.74E-06	24	0.84%	24	1.24E-06
								Total		2,801	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Westbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_PM25	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	1,901
WBBWS_PM25	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,801
									Total	4,702

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	2.65E-06	9	7.11%	135	1.64E-05	17	7.39%	141	1.71E-05
2	0.42%	8	9.70E-07	10	4.39%	83	1.01E-05	18	8.18%	156	1.89E-05
3	0.40%	8	9.32E-07	11	4.66%	89	1.08E-05	19	5.70%	108	1.32E-05
4	0.26%	5	5.94E-07	12	5.89%	112	1.36E-05	20	4.28%	81	9.89E-06
5	0.49%	9	1.14E-06	13	6.15%	117	1.42E-05	21	3.25%	62	7.52E-06
6	0.90%	17	2.09E-06	14	6.04%	115	1.40E-05	22	3.30%	63	7.63E-06
7	3.79%	72	8.75E-06	15	7.01%	133	1.62E-05	23	2.46%	47	5.69E-06
8	7.76%	148	1.79E-05	16	7.14%	136	1.65E-05	24	1.86%	35	4.31E-06
								Total		1,901	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	3.98E-06	9	7.11%	199	2.47E-05	17	7.39%	207	2.56E-05
2	0.42%	12	1.45E-06	10	4.39%	123	1.52E-05	18	8.18%	229	2.84E-05
3	0.40%	11	1.40E-06	11	4.66%	131	1.62E-05	19	5.70%	160	1.98E-05
4	0.26%	7	8.90E-07	12	5.89%	165	2.04E-05	20	4.28%	120	1.48E-05
5	0.49%	14	1.71E-06	13	6.15%	172	2.13E-05	21	3.25%	91	1.13E-05
6	0.90%	25	3.13E-06	14	6.04%	169	2.09E-05	22	3.30%	92	1.14E-05
7	3.79%	106	1.31E-05	15	7.01%	196	2.43E-05	23	2.46%	69	8.53E-06
8	7.76%	217	2.69E-05	16	7.14%	200	2.48E-05	24	1.86%	52	6.47E-06
								Total		2,801	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

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
WBBES_TEXH	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	1,901
WBBWS_TEXH	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,801
									Total	4,702

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	4.21E-05	9	7.11%	135	2.61E-04	17	7.39%	141	2.72E-04
2	0.42%	8	1.54E-05	10	4.39%	83	1.61E-04	18	8.18%	156	3.01E-04
3	0.40%	8	1.48E-05	11	4.66%	89	1.71E-04	19	5.70%	108	2.09E-04
4	0.26%	5	9.44E-06	12	5.89%	112	2.16E-04	20	4.28%	81	1.57E-04
5	0.49%	9	1.81E-05	13	6.15%	117	2.26E-04	21	3.25%	62	1.20E-04
6	0.90%	17	3.32E-05	14	6.04%	115	2.22E-04	22	3.30%	63	1.21E-04
7	3.79%	72	1.39E-04	15	7.01%	133	2.58E-04	23	2.46%	47	9.05E-05
8	7.76%	148	2.85E-04	16	7.14%	136	2.63E-04	24	1.86%	35	6.85E-05
								Total		1,901	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	6.32E-05	9	7.11%	199	3.92E-04	17	7.39%	207	4.08E-04
2	0.42%	12	2.31E-05	10	4.39%	123	2.42E-04	18	8.18%	229	4.51E-04
3	0.40%	11	2.22E-05	11	4.66%	131	2.57E-04	19	5.70%	160	3.14E-04
4	0.26%	7	1.42E-05	12	5.89%	165	3.25E-04	20	4.28%	120	2.36E-04
5	0.49%	14	2.72E-05	13	6.15%	172	3.39E-04	21	3.25%	91	1.79E-04
6	0.90%	25	4.98E-05	14	6.04%	169	3.33E-04	22	3.30%	92	1.82E-04
7	3.79%	106	2.09E-04	15	7.01%	196	3.87E-04	23	2.46%	69	1.36E-04
8	7.76%	217	4.28E-04	16	7.14%	200	3.94E-04	24	1.86%	52	1.03E-04
								Total		2,801	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_TEVAP	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	1,901
WBBWS_TEVAP	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,801
									Total	4,702

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	5.92E-05	9	7.11%	135	3.68E-04	17	7.39%	141	3.82E-04
2	0.42%	8	2.17E-05	10	4.39%	83	2.27E-04	18	8.18%	156	4.23E-04
3	0.40%	8	2.08E-05	11	4.66%	89	2.41E-04	19	5.70%	108	2.94E-04
4	0.26%	5	1.33E-05	12	5.89%	112	3.04E-04	20	4.28%	81	2.21E-04
5	0.49%	9	2.55E-05	13	6.15%	117	3.18E-04	21	3.25%	62	1.68E-04
6	0.90%	17	4.66E-05	14	6.04%	115	3.12E-04	22	3.30%	63	1.70E-04
7	3.79%	72	1.96E-04	15	7.01%	133	3.62E-04	23	2.46%	47	1.27E-04
8	7.76%	148	4.01E-04	16	7.14%	136	3.69E-04	24	1.86%	35	9.63E-05
								Total		1,901	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	8.89E-05	9	7.11%	199	5.51E-04	17	7.39%	207	5.73E-04
2	0.42%	12	3.25E-05	10	4.39%	123	3.40E-04	18	8.18%	229	6.34E-04
3	0.40%	11	3.13E-05	11	4.66%	131	3.61E-04	19	5.70%	160	4.42E-04
4	0.26%	7	1.99E-05	12	5.89%	165	4.56E-04	20	4.28%	120	3.31E-04
5	0.49%	14	3.83E-05	13	6.15%	172	4.77E-04	21	3.25%	91	2.52E-04
6	0.90%	25	6.99E-05	14	6.04%	169	4.68E-04	22	3.30%	92	2.56E-04
7	3.79%	106	2.94E-04	15	7.01%	196	5.43E-04	23	2.46%	69	1.91E-04
8	7.76%	217	6.02E-04	16	7.14%	200	5.54E-04	24	1.86%	52	1.45E-04
								Total		2,801	

San Jose Flea Market - Proposed Project Traffic -Roadway Emissions
Westbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_FUG	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	1,901
WBBWS_FUG	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,801
									Total	4,702

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	8.20E-05	9	7.11%	135	5.09E-04	17	7.39%	141	5.29E-04
2	0.42%	8	3.00E-05	10	4.39%	83	3.14E-04	18	8.18%	156	5.85E-04
3	0.40%	8	2.88E-05	11	4.66%	89	3.33E-04	19	5.70%	108	4.08E-04
4	0.26%	5	1.84E-05	12	5.89%	112	4.21E-04	20	4.28%	81	3.06E-04
5	0.49%	9	3.53E-05	13	6.15%	117	4.40E-04	21	3.25%	62	2.33E-04
6	0.90%	17	6.45E-05	14	6.04%	115	4.32E-04	22	3.30%	63	2.36E-04
7	3.79%	72	2.71E-04	15	7.01%	133	5.01E-04	23	2.46%	47	1.76E-04
8	7.76%	148	5.55E-04	16	7.14%	136	5.11E-04	24	1.86%	35	1.33E-04
								Total		1,901	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	1.23E-04	9	7.11%	199	7.63E-04	17	7.39%	207	7.93E-04
2	0.42%	12	4.50E-05	10	4.39%	123	4.71E-04	18	8.18%	229	8.78E-04
3	0.40%	11	4.33E-05	11	4.66%	131	5.00E-04	19	5.70%	160	6.11E-04
4	0.26%	7	2.75E-05	12	5.89%	165	6.31E-04	20	4.28%	120	4.59E-04
5	0.49%	14	5.30E-05	13	6.15%	172	6.60E-04	21	3.25%	91	3.49E-04
6	0.90%	25	9.68E-05	14	6.04%	169	6.47E-04	22	3.30%	92	3.54E-04
7	3.79%	106	4.06E-04	15	7.01%	196	7.52E-04	23	2.46%	69	2.64E-04
8	7.76%	217	8.33E-04	16	7.14%	200	7.66E-04	24	1.86%	52	2.00E-04
								Total		2,801	

CITY'S PROJECT ROAD EMISSIONS

Mabury Road

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_DPM	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	43.7	3.4	35	535
EBMWS_DPM	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	43.7	3.4	35	2,536
									Total	3,071

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	21	6.90E-07	9	6.45%	34	1.12E-06	17	5.61%	30	9.73E-07
2	2.63%	14	4.57E-07	10	7.45%	40	1.29E-06	18	3.20%	17	5.55E-07
3	2.86%	15	4.95E-07	11	6.39%	34	1.11E-06	19	2.19%	12	3.80E-07
4	3.25%	17	5.63E-07	12	7.01%	37	1.22E-06	20	0.85%	5	1.47E-07
5	2.18%	12	3.79E-07	13	6.28%	34	1.09E-06	21	3.09%	17	5.35E-07
6	3.30%	18	5.73E-07	14	6.17%	33	1.07E-06	22	4.26%	23	7.39E-07
7	6.05%	32	1.05E-06	15	5.10%	27	8.85E-07	23	2.58%	14	4.47E-07
8	4.43%	24	7.69E-07	16	3.87%	21	6.71E-07	24	0.84%	4	1.46E-07
								Total		535	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	101	2.72E-06	9	6.45%	163	4.41E-06	17	5.61%	142	3.84E-06
2	2.63%	67	1.80E-06	10	7.45%	189	5.10E-06	18	3.20%	81	2.19E-06
3	2.86%	72	1.95E-06	11	6.39%	162	4.37E-06	19	2.19%	56	1.50E-06
4	3.25%	82	2.22E-06	12	7.01%	178	4.80E-06	20	0.85%	21	5.80E-07
5	2.18%	55	1.49E-06	13	6.28%	159	4.30E-06	21	3.09%	78	2.11E-06
6	3.30%	84	2.26E-06	14	6.17%	156	4.22E-06	22	4.26%	108	2.92E-06
7	6.05%	154	4.14E-06	15	5.10%	129	3.49E-06	23	2.58%	65	1.76E-06
8	4.43%	112	3.03E-06	16	3.87%	98	2.65E-06	24	0.84%	21	5.75E-07
								Total		2,536	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_PM25	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	535
EBMWS_PM25	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,536
									Total	3,071

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	5.42E-07	9	7.11%	38	3.36E-06	17	7.39%	40	3.49E-06
2	0.42%	2	1.98E-07	10	4.39%	23	2.07E-06	18	8.18%	44	3.86E-06
3	0.40%	2	1.91E-07	11	4.66%	25	2.20E-06	19	5.70%	30	2.69E-06
4	0.26%	1	1.21E-07	12	5.89%	31	2.78E-06	20	4.28%	23	2.02E-06
5	0.49%	3	2.33E-07	13	6.15%	33	2.91E-06	21	3.25%	17	1.54E-06
6	0.90%	5	4.26E-07	14	6.04%	32	2.85E-06	22	3.30%	18	1.56E-06
7	3.79%	20	1.79E-06	15	7.01%	38	3.31E-06	23	2.46%	13	1.16E-06
8	7.76%	42	3.67E-06	16	7.14%	38	3.37E-06	24	1.86%	10	8.81E-07
								Total		535	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	2.14E-06	9	7.11%	180	1.33E-05	17	7.39%	187	1.38E-05
2	0.42%	11	7.82E-07	10	4.39%	111	8.18E-06	18	8.18%	208	1.53E-05
3	0.40%	10	7.52E-07	11	4.66%	118	8.69E-06	19	5.70%	145	1.06E-05
4	0.26%	7	4.79E-07	12	5.89%	149	1.10E-05	20	4.28%	108	7.97E-06
5	0.49%	13	9.20E-07	13	6.15%	156	1.15E-05	21	3.25%	82	6.06E-06
6	0.90%	23	1.68E-06	14	6.04%	153	1.13E-05	22	3.30%	84	6.15E-06
7	3.79%	96	7.06E-06	15	7.01%	178	1.31E-05	23	2.46%	62	4.59E-06
8	7.76%	197	1.45E-05	16	7.14%	181	1.33E-05	24	1.86%	47	3.48E-06
								Total		2,536	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEXH	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	535
EBMWS_TEXH	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,536
									Total	3,071

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	9.33E-06	9	7.11%	38	5.79E-05	17	7.39%	40	6.01E-05
2	0.42%	2	3.41E-06	10	4.39%	23	3.57E-05	18	8.18%	44	6.66E-05
3	0.40%	2	3.28E-06	11	4.66%	25	3.79E-05	19	5.70%	30	4.64E-05
4	0.26%	1	2.09E-06	12	5.89%	31	4.79E-05	20	4.28%	23	3.48E-05
5	0.49%	3	4.02E-06	13	6.15%	33	5.00E-05	21	3.25%	17	2.65E-05
6	0.90%	5	7.34E-06	14	6.04%	32	4.91E-05	22	3.30%	18	2.68E-05
7	3.79%	20	3.08E-05	15	7.01%	38	5.71E-05	23	2.46%	13	2.00E-05
8	7.76%	42	6.32E-05	16	7.14%	38	5.81E-05	24	1.86%	10	1.52E-05
								Total		535	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	3.68E-05	9	7.11%	180	2.28E-04	17	7.39%	187	2.37E-04
2	0.42%	11	1.35E-05	10	4.39%	111	1.41E-04	18	8.18%	208	2.63E-04
3	0.40%	10	1.29E-05	11	4.66%	118	1.50E-04	19	5.70%	145	1.83E-04
4	0.26%	7	8.25E-06	12	5.89%	149	1.89E-04	20	4.28%	108	1.37E-04
5	0.49%	13	1.59E-05	13	6.15%	156	1.97E-04	21	3.25%	82	1.04E-04
6	0.90%	23	2.90E-05	14	6.04%	153	1.94E-04	22	3.30%	84	1.06E-04
7	3.79%	96	1.22E-04	15	7.01%	178	2.25E-04	23	2.46%	62	7.90E-05
8	7.76%	197	2.49E-04	16	7.14%	181	2.29E-04	24	1.86%	47	5.99E-05
								Total		2,536	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEVAP	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	535
EBMWS_TEVAP	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,536
									Total	3,071

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	1.32E-05	9	7.11%	38	8.19E-05	17	7.39%	40	8.51E-05
2	0.42%	2	4.83E-06	10	4.39%	23	5.05E-05	18	8.18%	44	9.42E-05
3	0.40%	2	4.64E-06	11	4.66%	25	5.36E-05	19	5.70%	30	6.56E-05
4	0.26%	1	2.96E-06	12	5.89%	31	6.78E-05	20	4.28%	23	4.92E-05
5	0.49%	3	5.68E-06	13	6.15%	33	7.08E-05	21	3.25%	17	3.74E-05
6	0.90%	5	1.04E-05	14	6.04%	32	6.95E-05	22	3.30%	18	3.80E-05
7	3.79%	20	4.36E-05	15	7.01%	38	8.07E-05	23	2.46%	13	2.83E-05
8	7.76%	42	8.93E-05	16	7.14%	38	8.22E-05	24	1.86%	10	2.15E-05
								Total		535	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	5.21E-05	9	7.11%	180	3.23E-04	17	7.39%	187	3.36E-04
2	0.42%	11	1.91E-05	10	4.39%	111	1.99E-04	18	8.18%	208	3.72E-04
3	0.40%	10	1.83E-05	11	4.66%	118	2.12E-04	19	5.70%	145	2.59E-04
4	0.26%	7	1.17E-05	12	5.89%	149	2.67E-04	20	4.28%	108	1.94E-04
5	0.49%	13	2.24E-05	13	6.15%	156	2.79E-04	21	3.25%	82	1.48E-04
6	0.90%	23	4.10E-05	14	6.04%	153	2.74E-04	22	3.30%	84	1.50E-04
7	3.79%	96	1.72E-04	15	7.01%	178	3.18E-04	23	2.46%	62	1.12E-04
8	7.76%	197	3.53E-04	16	7.14%	181	3.24E-04	24	1.86%	47	8.47E-05
								Total		2,536	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_FUG	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	535
EBMWS_FUG	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	2,536
									Total	3,071

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	1.60E-05	9	7.11%	38	9.91E-05	17	7.39%	40	1.03E-04
2	0.42%	2	5.85E-06	10	4.39%	23	6.12E-05	18	8.18%	44	1.14E-04
3	0.40%	2	5.62E-06	11	4.66%	25	6.50E-05	19	5.70%	30	7.94E-05
4	0.26%	1	3.58E-06	12	5.89%	31	8.21E-05	20	4.28%	23	5.96E-05
5	0.49%	3	6.88E-06	13	6.15%	33	8.57E-05	21	3.25%	17	4.53E-05
6	0.90%	5	1.26E-05	14	6.04%	32	8.41E-05	22	3.30%	18	4.60E-05
7	3.79%	20	5.28E-05	15	7.01%	38	9.77E-05	23	2.46%	13	3.43E-05
8	7.76%	42	1.08E-04	16	7.14%	38	9.95E-05	24	1.86%	10	2.60E-05
								Total		535	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	29	6.31E-05	9	7.11%	180	3.91E-04	17	7.39%	187	4.07E-04
2	0.42%	11	2.31E-05	10	4.39%	111	2.41E-04	18	8.18%	208	4.50E-04
3	0.40%	10	2.22E-05	11	4.66%	118	2.56E-04	19	5.70%	145	3.13E-04
4	0.26%	7	1.41E-05	12	5.89%	149	3.24E-04	20	4.28%	108	2.35E-04
5	0.49%	13	2.72E-05	13	6.15%	156	3.38E-04	21	3.25%	82	1.79E-04
6	0.90%	23	4.96E-05	14	6.04%	153	3.32E-04	22	3.30%	84	1.81E-04
7	3.79%	96	2.08E-04	15	7.01%	178	3.86E-04	23	2.46%	62	1.35E-04
8	7.76%	197	4.27E-04	16	7.14%	181	3.93E-04	24	1.86%	47	1.03E-04
								Total		2,536	

San Jose Flea Market - City's Project Traffic - Roadway Emissions
Westbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_DPM	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	43.7	3.4	35	499
WBMWS_DPM	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	43.7	3.4	35	2,296
									Total	2,795

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	20	6.41E-07	9	6.45%	32	1.04E-06	17	5.61%	28	9.04E-07
2	2.63%	13	4.24E-07	10	7.45%	37	1.20E-06	18	3.20%	16	5.16E-07
3	2.86%	14	4.60E-07	11	6.39%	32	1.03E-06	19	2.19%	11	3.53E-07
4	3.25%	16	5.24E-07	12	7.01%	35	1.13E-06	20	0.85%	4	1.37E-07
5	2.18%	11	3.52E-07	13	6.28%	31	1.01E-06	21	3.09%	15	4.98E-07
6	3.30%	16	5.33E-07	14	6.17%	31	9.94E-07	22	4.26%	21	6.87E-07
7	6.05%	30	9.76E-07	15	5.10%	25	8.23E-07	23	2.58%	13	4.15E-07
8	4.43%	22	7.14E-07	16	3.87%	19	6.24E-07	24	0.84%	4	1.35E-07
								Total		499	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	91	2.49E-06	9	6.45%	148	4.03E-06	17	5.61%	129	3.51E-06
2	2.63%	60	1.65E-06	10	7.45%	171	4.66E-06	18	3.20%	73	2.00E-06
3	2.86%	66	1.79E-06	11	6.39%	147	4.00E-06	19	2.19%	50	1.37E-06
4	3.25%	75	2.03E-06	12	7.01%	161	4.38E-06	20	0.85%	19	5.30E-07
5	2.18%	50	1.37E-06	13	6.28%	144	3.93E-06	21	3.09%	71	1.93E-06
6	3.30%	76	2.07E-06	14	6.17%	142	3.86E-06	22	4.26%	98	2.67E-06
7	6.05%	139	3.79E-06	15	5.10%	117	3.19E-06	23	2.58%	59	1.61E-06
8	4.43%	102	2.77E-06	16	3.87%	89	2.42E-06	24	0.84%	19	5.25E-07
								Total		2,296	

San Jose Flea Market - City's Project Traffic - Roadway Emissions
Westbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

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
WBMES_PM25	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	499
WBMWS_PM25	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,296
									Total	2,795

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	5.03E-07	9	7.11%	35	3.12E-06	17	7.39%	37	3.24E-06
2	0.42%	2	1.84E-07	10	4.39%	22	1.93E-06	18	8.18%	41	3.59E-06
3	0.40%	2	1.77E-07	11	4.66%	23	2.05E-06	19	5.70%	28	2.50E-06
4	0.26%	1	1.13E-07	12	5.89%	29	2.58E-06	20	4.28%	21	1.88E-06
5	0.49%	2	2.17E-07	13	6.15%	31	2.70E-06	21	3.25%	16	1.43E-06
6	0.90%	5	3.96E-07	14	6.04%	30	2.65E-06	22	3.30%	16	1.45E-06
7	3.79%	19	1.66E-06	15	7.01%	35	3.08E-06	23	2.46%	12	1.08E-06
8	7.76%	39	3.41E-06	16	7.14%	36	3.14E-06	24	1.86%	9	8.19E-07
								Total		499	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	26	1.95E-06	9	7.11%	163	1.21E-05	17	7.39%	170	1.26E-05
2	0.42%	10	7.15E-07	10	4.39%	101	7.47E-06	18	8.18%	188	1.39E-05
3	0.40%	9	6.87E-07	11	4.66%	107	7.94E-06	19	5.70%	131	9.71E-06
4	0.26%	6	4.37E-07	12	5.89%	135	1.00E-05	20	4.28%	98	7.29E-06
5	0.49%	11	8.41E-07	13	6.15%	141	1.05E-05	21	3.25%	75	5.54E-06
6	0.90%	21	1.54E-06	14	6.04%	139	1.03E-05	22	3.30%	76	5.62E-06
7	3.79%	87	6.45E-06	15	7.01%	161	1.19E-05	23	2.46%	57	4.19E-06
8	7.76%	178	1.32E-05	16	7.14%	164	1.22E-05	24	1.86%	43	3.18E-06
								Total		2,296	

San Jose Flea Market - City's Project Traffic - Roadway Emissions
Westbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEXH	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	499
WBMWS_TEXH	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,296
									Total	2,795

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	8.67E-06	9	7.11%	35	5.38E-05	17	7.39%	37	5.59E-05
2	0.42%	2	3.17E-06	10	4.39%	22	3.32E-05	18	8.18%	41	6.19E-05
3	0.40%	2	3.05E-06	11	4.66%	23	3.52E-05	19	5.70%	28	4.31E-05
4	0.26%	1	1.94E-06	12	5.89%	29	4.45E-05	20	4.28%	21	3.23E-05
5	0.49%	2	3.73E-06	13	6.15%	31	4.65E-05	21	3.25%	16	2.46E-05
6	0.90%	5	6.82E-06	14	6.04%	30	4.57E-05	22	3.30%	16	2.49E-05
7	3.79%	19	2.86E-05	15	7.01%	35	5.30E-05	23	2.46%	12	1.86E-05
8	7.76%	39	5.87E-05	16	7.14%	36	5.40E-05	24	1.86%	9	1.41E-05
								Total		499	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	26	3.36E-05	9	7.11%	163	2.09E-04	17	7.39%	170	2.17E-04
2	0.42%	10	1.23E-05	10	4.39%	101	1.29E-04	18	8.18%	188	2.40E-04
3	0.40%	9	1.18E-05	11	4.66%	107	1.37E-04	19	5.70%	131	1.67E-04
4	0.26%	6	7.54E-06	12	5.89%	135	1.73E-04	20	4.28%	98	1.26E-04
5	0.49%	11	1.45E-05	13	6.15%	141	1.80E-04	21	3.25%	75	9.54E-05
6	0.90%	21	2.65E-05	14	6.04%	139	1.77E-04	22	3.30%	76	9.68E-05
7	3.79%	87	1.11E-04	15	7.01%	161	2.06E-04	23	2.46%	57	7.22E-05
8	7.76%	178	2.28E-04	16	7.14%	164	2.10E-04	24	1.86%	43	5.47E-05
								Total		2,296	

San Jose Flea Market - City's Project Traffic - Roadway Emissions
Westbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEVAP	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	499
WBMWS_TEVAP	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,296
									Total	2,795

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	1.23E-05	9	7.11%	35	7.61E-05	17	7.39%	37	7.91E-05
2	0.42%	2	4.49E-06	10	4.39%	22	4.69E-05	18	8.18%	41	8.75E-05
3	0.40%	2	4.31E-06	11	4.66%	23	4.99E-05	19	5.70%	28	6.10E-05
4	0.26%	1	2.75E-06	12	5.89%	29	6.30E-05	20	4.28%	21	4.58E-05
5	0.49%	2	5.28E-06	13	6.15%	31	6.58E-05	21	3.25%	16	3.48E-05
6	0.90%	5	9.65E-06	14	6.04%	30	6.46E-05	22	3.30%	16	3.53E-05
7	3.79%	19	4.05E-05	15	7.01%	35	7.50E-05	23	2.46%	12	2.63E-05
8	7.76%	39	8.30E-05	16	7.14%	36	7.64E-05	24	1.86%	9	1.99E-05
								Total		499	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	26	4.76E-05	9	7.11%	163	2.95E-04	17	7.39%	170	3.07E-04
2	0.42%	10	1.74E-05	10	4.39%	101	1.82E-04	18	8.18%	188	3.40E-04
3	0.40%	9	1.67E-05	11	4.66%	107	1.93E-04	19	5.70%	131	2.37E-04
4	0.26%	6	1.07E-05	12	5.89%	135	2.44E-04	20	4.28%	98	1.78E-04
5	0.49%	11	2.05E-05	13	6.15%	141	2.55E-04	21	3.25%	75	1.35E-04
6	0.90%	21	3.75E-05	14	6.04%	139	2.51E-04	22	3.30%	76	1.37E-04
7	3.79%	87	1.57E-04	15	7.01%	161	2.91E-04	23	2.46%	57	1.02E-04
8	7.76%	178	3.22E-04	16	7.14%	164	2.96E-04	24	1.86%	43	7.74E-05
								Total		2,296	

San Jose Flea Market - City's Project Traffic - Roadway Emissions
Westbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_FUG	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	499
WBMWS_FUG	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	2,296
									Total	2,795

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	6	1.49E-05	9	7.11%	35	9.21E-05	17	7.39%	37	9.57E-05
2	0.42%	2	5.44E-06	10	4.39%	22	5.68E-05	18	8.18%	41	1.06E-04
3	0.40%	2	5.22E-06	11	4.66%	23	6.04E-05	19	5.70%	28	7.38E-05
4	0.26%	1	3.33E-06	12	5.89%	29	7.63E-05	20	4.28%	21	5.54E-05
5	0.49%	2	6.40E-06	13	6.15%	31	7.97E-05	21	3.25%	16	4.21E-05
6	0.90%	5	1.17E-05	14	6.04%	30	7.82E-05	22	3.30%	16	4.27E-05
7	3.79%	19	4.91E-05	15	7.01%	35	9.08E-05	23	2.46%	12	3.19E-05
8	7.76%	39	1.01E-04	16	7.14%	36	9.25E-05	24	1.86%	9	2.42E-05
								Total		499	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	26	5.76E-05	9	7.11%	163	3.58E-04	17	7.39%	170	3.72E-04
2	0.42%	10	2.11E-05	10	4.39%	101	2.21E-04	18	8.18%	188	4.11E-04
3	0.40%	9	2.03E-05	11	4.66%	107	2.34E-04	19	5.70%	131	2.86E-04
4	0.26%	6	1.29E-05	12	5.89%	135	2.96E-04	20	4.28%	98	2.15E-04
5	0.49%	11	2.48E-05	13	6.15%	141	3.09E-04	21	3.25%	75	1.63E-04
6	0.90%	21	4.54E-05	14	6.04%	139	3.03E-04	22	3.30%	76	1.66E-04
7	3.79%	87	1.90E-04	15	7.01%	161	3.52E-04	23	2.46%	57	1.24E-04
8	7.76%	178	3.90E-04	16	7.14%	164	3.59E-04	24	1.86%	43	9.37E-05
								Total		2,296	

Berryessa Road

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_DPM	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	43.7	3.4	40	1,950
EBBWS_DPM	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	43.7	3.4	40	2,725
									Total	4,675

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	78	4.05E-06	9	6.45%	126	6.57E-06	17	5.61%	109	5.71E-06
2	2.63%	51	2.68E-06	10	7.45%	145	7.59E-06	18	3.20%	62	3.26E-06
3	2.86%	56	2.91E-06	11	6.39%	125	6.51E-06	19	2.19%	43	2.23E-06
4	3.25%	63	3.31E-06	12	7.01%	137	7.14E-06	20	0.85%	17	8.63E-07
5	2.18%	43	2.22E-06	13	6.28%	122	6.40E-06	21	3.09%	60	3.14E-06
6	3.30%	64	3.37E-06	14	6.17%	120	6.28E-06	22	4.26%	83	4.34E-06
7	6.05%	118	6.17E-06	15	5.10%	99	5.20E-06	23	2.58%	50	2.62E-06
8	4.43%	86	4.51E-06	16	3.87%	75	3.94E-06	24	0.84%	16	8.56E-07
								Total		1,950	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	108	5.73E-06	9	6.45%	176	9.29E-06	17	5.61%	153	8.08E-06
2	2.63%	72	3.79E-06	10	7.45%	203	1.07E-05	18	3.20%	87	4.61E-06
3	2.86%	78	4.11E-06	11	6.39%	174	9.21E-06	19	2.19%	60	3.16E-06
4	3.25%	88	4.68E-06	12	7.01%	191	1.01E-05	20	0.85%	23	1.22E-06
5	2.18%	60	3.15E-06	13	6.28%	171	9.05E-06	21	3.09%	84	4.45E-06
6	3.30%	90	4.76E-06	14	6.17%	168	8.88E-06	22	4.26%	116	6.14E-06
7	6.05%	165	8.72E-06	15	5.10%	139	7.35E-06	23	2.58%	70	3.71E-06
8	4.43%	121	6.38E-06	16	3.87%	105	5.58E-06	24	0.84%	23	1.21E-06
								Total		2,725	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

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
EBBES_PM25	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,950
EBBWS_PM25	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,725
									Total	4,675

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	2.73E-06	9	7.11%	139	1.70E-05	17	7.39%	144	1.76E-05
2	0.42%	8	1.00E-06	10	4.39%	86	1.05E-05	18	8.18%	160	1.95E-05
3	0.40%	8	9.61E-07	11	4.66%	91	1.11E-05	19	5.70%	111	1.36E-05
4	0.26%	5	6.12E-07	12	5.89%	115	1.40E-05	20	4.28%	83	1.02E-05
5	0.49%	10	1.18E-06	13	6.15%	120	1.47E-05	21	3.25%	63	7.75E-06
6	0.90%	18	2.15E-06	14	6.04%	118	1.44E-05	22	3.30%	64	7.86E-06
7	3.79%	74	9.03E-06	15	7.01%	137	1.67E-05	23	2.46%	48	5.87E-06
8	7.76%	151	1.85E-05	16	7.14%	139	1.70E-05	24	1.86%	36	4.44E-06
								Total		1,950	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	31	3.87E-06	9	7.11%	194	2.40E-05	17	7.39%	201	2.49E-05
2	0.42%	11	1.41E-06	10	4.39%	120	1.48E-05	18	8.18%	223	2.76E-05
3	0.40%	11	1.36E-06	11	4.66%	127	1.57E-05	19	5.70%	155	1.92E-05
4	0.26%	7	8.66E-07	12	5.89%	160	1.98E-05	20	4.28%	117	1.44E-05
5	0.49%	13	1.66E-06	13	6.15%	168	2.07E-05	21	3.25%	89	1.10E-05
6	0.90%	25	3.04E-06	14	6.04%	165	2.04E-05	22	3.30%	90	1.11E-05
7	3.79%	103	1.28E-05	15	7.01%	191	2.36E-05	23	2.46%	67	8.30E-06
8	7.76%	212	2.62E-05	16	7.14%	195	2.41E-05	24	1.86%	51	6.29E-06
								Total		2,725	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEXH	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,950
EBBWS_TEXH	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,725
									Total	4,675

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	4.35E-05	9	7.11%	139	2.70E-04	17	7.39%	144	2.80E-04
2	0.42%	8	1.59E-05	10	4.39%	86	1.66E-04	18	8.18%	160	3.10E-04
3	0.40%	8	1.53E-05	11	4.66%	91	1.77E-04	19	5.70%	111	2.16E-04
4	0.26%	5	9.73E-06	12	5.89%	115	2.23E-04	20	4.28%	83	1.62E-04
5	0.49%	10	1.87E-05	13	6.15%	120	2.33E-04	21	3.25%	63	1.23E-04
6	0.90%	18	3.42E-05	14	6.04%	118	2.29E-04	22	3.30%	64	1.25E-04
7	3.79%	74	1.44E-04	15	7.01%	137	2.66E-04	23	2.46%	48	9.33E-05
8	7.76%	151	2.94E-04	16	7.14%	139	2.71E-04	24	1.86%	36	7.07E-05
								Total		1,950	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	31	6.15E-05	9	7.11%	194	3.81E-04	17	7.39%	201	3.96E-04
2	0.42%	11	2.25E-05	10	4.39%	120	2.35E-04	18	8.18%	223	4.39E-04
3	0.40%	11	2.16E-05	11	4.66%	127	2.50E-04	19	5.70%	155	3.05E-04
4	0.26%	7	1.38E-05	12	5.89%	160	3.16E-04	20	4.28%	117	2.29E-04
5	0.49%	13	2.65E-05	13	6.15%	168	3.30E-04	21	3.25%	89	1.74E-04
6	0.90%	25	4.84E-05	14	6.04%	165	3.24E-04	22	3.30%	90	1.77E-04
7	3.79%	103	2.03E-04	15	7.01%	191	3.76E-04	23	2.46%	67	1.32E-04
8	7.76%	212	4.16E-04	16	7.14%	195	3.83E-04	24	1.86%	51	1.00E-04
								Total		2,725	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEVAP	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,950
EBBWS_TEVAP	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,725
									Total	4,675

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	6.11E-05	9	7.11%	139	3.79E-04	17	7.39%	144	3.94E-04
2	0.42%	8	2.24E-05	10	4.39%	86	2.34E-04	18	8.18%	160	4.36E-04
3	0.40%	8	2.15E-05	11	4.66%	91	2.48E-04	19	5.70%	111	3.04E-04
4	0.26%	5	1.37E-05	12	5.89%	115	3.14E-04	20	4.28%	83	2.28E-04
5	0.49%	10	2.63E-05	13	6.15%	120	3.28E-04	21	3.25%	63	1.73E-04
6	0.90%	18	4.81E-05	14	6.04%	118	3.22E-04	22	3.30%	64	1.76E-04
7	3.79%	74	2.02E-04	15	7.01%	137	3.74E-04	23	2.46%	48	1.31E-04
8	7.76%	151	4.14E-04	16	7.14%	139	3.81E-04	24	1.86%	36	9.94E-05
								Total		1,950	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	31	8.64E-05	9	7.11%	194	5.36E-04	17	7.39%	201	5.57E-04
2	0.42%	11	3.16E-05	10	4.39%	120	3.31E-04	18	8.18%	223	6.17E-04
3	0.40%	11	3.04E-05	11	4.66%	127	3.51E-04	19	5.70%	155	4.29E-04
4	0.26%	7	1.94E-05	12	5.89%	160	4.44E-04	20	4.28%	117	3.22E-04
5	0.49%	13	3.72E-05	13	6.15%	168	4.64E-04	21	3.25%	89	2.45E-04
6	0.90%	25	6.80E-05	14	6.04%	165	4.55E-04	22	3.30%	90	2.49E-04
7	3.79%	103	2.85E-04	15	7.01%	191	5.28E-04	23	2.46%	67	1.85E-04
8	7.76%	212	5.85E-04	16	7.14%	195	5.38E-04	24	1.86%	51	1.41E-04
								Total		2,725	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Eastbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_FUG	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	1,950
EBBWS_FUG	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	2,725
									Total	4,675

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	22	8.45E-05	9	7.11%	139	5.24E-04	17	7.39%	144	5.45E-04
2	0.42%	8	3.09E-05	10	4.39%	86	3.24E-04	18	8.18%	160	6.03E-04
3	0.40%	8	2.97E-05	11	4.66%	91	3.44E-04	19	5.70%	111	4.20E-04
4	0.26%	5	1.89E-05	12	5.89%	115	4.34E-04	20	4.28%	83	3.15E-04
5	0.49%	10	3.64E-05	13	6.15%	120	4.54E-04	21	3.25%	63	2.40E-04
6	0.90%	18	6.65E-05	14	6.04%	118	4.45E-04	22	3.30%	64	2.43E-04
7	3.79%	74	2.79E-04	15	7.01%	137	5.17E-04	23	2.46%	48	1.81E-04
8	7.76%	151	5.72E-04	16	7.14%	139	5.27E-04	24	1.86%	36	1.37E-04
								Total		1,950	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	31	1.20E-04	9	7.11%	194	7.42E-04	17	7.39%	201	7.71E-04
2	0.42%	11	4.38E-05	10	4.39%	120	4.58E-04	18	8.18%	223	8.53E-04
3	0.40%	11	4.21E-05	11	4.66%	127	4.86E-04	19	5.70%	155	5.94E-04
4	0.26%	7	2.68E-05	12	5.89%	160	6.14E-04	20	4.28%	117	4.46E-04
5	0.49%	13	5.15E-05	13	6.15%	168	6.41E-04	21	3.25%	89	3.39E-04
6	0.90%	25	9.41E-05	14	6.04%	165	6.30E-04	22	3.30%	90	3.44E-04
7	3.79%	103	3.95E-04	15	7.01%	191	7.31E-04	23	2.46%	67	2.57E-04
8	7.76%	212	8.09E-04	16	7.14%	195	7.45E-04	24	1.86%	51	1.94E-04
								Total		2,725	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Westbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_DPM	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	43.7	3.4	40	2,133
WBBWS_DPM	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	43.7	3.4	40	2,765
									Total	4,898

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	85	4.41E-06	9	6.45%	137	7.15E-06	17	5.61%	120	6.22E-06
2	2.63%	56	2.92E-06	10	7.45%	159	8.26E-06	18	3.20%	68	3.55E-06
3	2.86%	61	3.17E-06	11	6.39%	136	7.08E-06	19	2.19%	47	2.43E-06
4	3.25%	69	3.60E-06	12	7.01%	149	7.77E-06	20	0.85%	18	9.39E-07
5	2.18%	47	2.42E-06	13	6.28%	134	6.96E-06	21	3.09%	66	3.42E-06
6	3.30%	70	3.66E-06	14	6.17%	132	6.84E-06	22	4.26%	91	4.73E-06
7	6.05%	129	6.71E-06	15	5.10%	109	5.66E-06	23	2.58%	55	2.86E-06
8	4.43%	94	4.91E-06	16	3.87%	83	4.29E-06	24	0.84%	18	9.31E-07
								Total		2,133	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	110	5.82E-06	9	6.45%	178	9.43E-06	17	5.61%	155	8.20E-06
2	2.63%	73	3.85E-06	10	7.45%	206	1.09E-05	18	3.20%	88	4.68E-06
3	2.86%	79	4.18E-06	11	6.39%	177	9.35E-06	19	2.19%	61	3.20E-06
4	3.25%	90	4.75E-06	12	7.01%	194	1.02E-05	20	0.85%	23	1.24E-06
5	2.18%	60	3.19E-06	13	6.28%	174	9.18E-06	21	3.09%	85	4.52E-06
6	3.30%	91	4.83E-06	14	6.17%	170	9.02E-06	22	4.26%	118	6.24E-06
7	6.05%	167	8.86E-06	15	5.10%	141	7.46E-06	23	2.58%	71	3.77E-06
8	4.43%	122	6.48E-06	16	3.87%	107	5.66E-06	24	0.84%	23	1.23E-06
								Total		2,765	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Westbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_PM25	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	2,133
WBBWS_PM25	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,765
									Total	4,898

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	24	2.97E-06	9	7.11%	152	1.84E-05	17	7.39%	158	1.92E-05
2	0.42%	9	1.09E-06	10	4.39%	94	1.14E-05	18	8.18%	175	2.12E-05
3	0.40%	9	1.05E-06	11	4.66%	99	1.21E-05	19	5.70%	122	1.48E-05
4	0.26%	5	6.66E-07	12	5.89%	126	1.53E-05	20	4.28%	91	1.11E-05
5	0.49%	11	1.28E-06	13	6.15%	131	1.60E-05	21	3.25%	69	8.43E-06
6	0.90%	19	2.34E-06	14	6.04%	129	1.57E-05	22	3.30%	70	8.56E-06
7	3.79%	81	9.82E-06	15	7.01%	150	1.82E-05	23	2.46%	53	6.38E-06
8	7.76%	166	2.01E-05	16	7.14%	152	1.85E-05	24	1.86%	40	4.84E-06
								Total		2,133	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	3.92E-06	9	7.11%	197	2.43E-05	17	7.39%	204	2.53E-05
2	0.42%	12	1.44E-06	10	4.39%	121	1.50E-05	18	8.18%	226	2.80E-05
3	0.40%	11	1.38E-06	11	4.66%	129	1.60E-05	19	5.70%	158	1.95E-05
4	0.26%	7	8.79E-07	12	5.89%	163	2.01E-05	20	4.28%	118	1.46E-05
5	0.49%	14	1.69E-06	13	6.15%	170	2.11E-05	21	3.25%	90	1.11E-05
6	0.90%	25	3.09E-06	14	6.04%	167	2.07E-05	22	3.30%	91	1.13E-05
7	3.79%	105	1.30E-05	15	7.01%	194	2.40E-05	23	2.46%	68	8.42E-06
8	7.76%	215	2.66E-05	16	7.14%	198	2.44E-05	24	1.86%	52	6.38E-06
								Total		2,765	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

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
WBBES_TEXH	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	2,133
WBBWS_TEXH	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,765
									Total	4,898

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	24	4.73E-05	9	7.11%	152	2.93E-04	17	7.39%	158	3.05E-04
2	0.42%	9	1.73E-05	10	4.39%	94	1.81E-04	18	8.18%	175	3.37E-04
3	0.40%	9	1.66E-05	11	4.66%	99	1.92E-04	19	5.70%	122	2.35E-04
4	0.26%	5	1.06E-05	12	5.89%	126	2.43E-04	20	4.28%	91	1.76E-04
5	0.49%	11	2.04E-05	13	6.15%	131	2.54E-04	21	3.25%	69	1.34E-04
6	0.90%	19	3.72E-05	14	6.04%	129	2.49E-04	22	3.30%	70	1.36E-04
7	3.79%	81	1.56E-04	15	7.01%	150	2.89E-04	23	2.46%	53	1.02E-04
8	7.76%	166	3.20E-04	16	7.14%	152	2.95E-04	24	1.86%	40	7.69E-05
								Total		2,133	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	6.24E-05	9	7.11%	197	3.87E-04	17	7.39%	204	4.02E-04
2	0.42%	12	2.28E-05	10	4.39%	121	2.39E-04	18	8.18%	226	4.45E-04
3	0.40%	11	2.19E-05	11	4.66%	129	2.54E-04	19	5.70%	158	3.10E-04
4	0.26%	7	1.40E-05	12	5.89%	163	3.20E-04	20	4.28%	118	2.33E-04
5	0.49%	14	2.69E-05	13	6.15%	170	3.35E-04	21	3.25%	90	1.77E-04
6	0.90%	25	4.91E-05	14	6.04%	167	3.29E-04	22	3.30%	91	1.80E-04
7	3.79%	105	2.06E-04	15	7.01%	194	3.82E-04	23	2.46%	68	1.34E-04
8	7.76%	215	4.22E-04	16	7.14%	198	3.89E-04	24	1.86%	52	1.01E-04
								Total		2,765	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

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
WBBES_TEVAP	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	2,133
WBBWS_TEVAP	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,765
									Total	4,898

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	24	6.65E-05	9	7.11%	152	4.12E-04	17	7.39%	158	4.29E-04
2	0.42%	9	2.43E-05	10	4.39%	94	2.54E-04	18	8.18%	175	4.74E-04
3	0.40%	9	2.34E-05	11	4.66%	99	2.70E-04	19	5.70%	122	3.30E-04
4	0.26%	5	1.49E-05	12	5.89%	126	3.41E-04	20	4.28%	91	2.48E-04
5	0.49%	11	2.86E-05	13	6.15%	131	3.57E-04	21	3.25%	69	1.89E-04
6	0.90%	19	5.23E-05	14	6.04%	129	3.50E-04	22	3.30%	70	1.91E-04
7	3.79%	81	2.20E-04	15	7.01%	150	4.07E-04	23	2.46%	53	1.43E-04
8	7.76%	166	4.50E-04	16	7.14%	152	4.14E-04	24	1.86%	40	1.08E-04
								Total		2,133	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	8.77E-05	9	7.11%	197	5.44E-04	17	7.39%	204	5.66E-04
2	0.42%	12	3.21E-05	10	4.39%	121	3.36E-04	18	8.18%	226	6.26E-04
3	0.40%	11	3.09E-05	11	4.66%	129	3.57E-04	19	5.70%	158	4.36E-04
4	0.26%	7	1.96E-05	12	5.89%	163	4.50E-04	20	4.28%	118	3.27E-04
5	0.49%	14	3.78E-05	13	6.15%	170	4.71E-04	21	3.25%	90	2.49E-04
6	0.90%	25	6.90E-05	14	6.04%	167	4.62E-04	22	3.30%	91	2.52E-04
7	3.79%	105	2.90E-04	15	7.01%	194	5.36E-04	23	2.46%	68	1.88E-04
8	7.76%	215	5.94E-04	16	7.14%	198	5.46E-04	24	1.86%	52	1.43E-04
								Total		2,765	

San Jose Flea Market - City's Project Traffic -Roadway Emissions
Westbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_FUG	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	2,133
WBBWS_FUG	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	2,765
									Total	4,898

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	24	9.20E-05	9	7.11%	152	5.71E-04	17	7.39%	158	5.93E-04
2	0.42%	9	3.37E-05	10	4.39%	94	3.52E-04	18	8.18%	175	6.56E-04
3	0.40%	9	3.24E-05	11	4.66%	99	3.74E-04	19	5.70%	122	4.57E-04
4	0.26%	5	2.06E-05	12	5.89%	126	4.72E-04	20	4.28%	91	3.43E-04
5	0.49%	11	3.96E-05	13	6.15%	131	4.94E-04	21	3.25%	69	2.61E-04
6	0.90%	19	7.24E-05	14	6.04%	129	4.84E-04	22	3.30%	70	2.65E-04
7	3.79%	81	3.04E-04	15	7.01%	150	5.63E-04	23	2.46%	53	1.97E-04
8	7.76%	166	6.23E-04	16	7.14%	152	5.73E-04	24	1.86%	40	1.50E-04
								Total		2,133	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	32	1.21E-04	9	7.11%	197	7.53E-04	17	7.39%	204	7.83E-04
2	0.42%	12	4.44E-05	10	4.39%	121	4.65E-04	18	8.18%	226	8.66E-04
3	0.40%	11	4.27E-05	11	4.66%	129	4.93E-04	19	5.70%	158	6.03E-04
4	0.26%	7	2.72E-05	12	5.89%	163	6.23E-04	20	4.28%	118	4.53E-04
5	0.49%	14	5.23E-05	13	6.15%	170	6.51E-04	21	3.25%	90	3.44E-04
6	0.90%	25	9.56E-05	14	6.04%	167	6.39E-04	22	3.30%	91	3.49E-04
7	3.79%	105	4.01E-04	15	7.01%	194	7.42E-04	23	2.46%	68	2.61E-04
8	7.76%	215	8.22E-04	16	7.14%	198	7.56E-04	24	1.86%	52	1.97E-04
								Total		2,765	

Flea Market, San Jose, CA
Project Construction and Operation Health Impacts Summary

Project Construction Impacts - Genuis Kids Berryessa (Infant Exposure)

Emissions Year	Maximum Concentrations		Cancer Risk (per million)	Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM (µg/m3)	Fugitive PM2.5 (µg/m3)	Infant	(-)	(µg/m3)
2023	0.0025	0.0029	1.07	0.000	0.06
2024	0.0022	0.0003	0.95	0.000	0.02
2025	0.0020	0.0003	0.88	0.000	0.02
2026	0.0020	0.0003	0.88	0.000	0.02
2027	0.0020	0.0003	0.88	0.000	0.02
2028	0.0011	0.0002	0.49	0.000	0.01
Total	-	-	**5.1**	-	-
Maximum	0.0025	0.0029	-	0.0005	0.0610

Project Generator Impacts - Genuis Kids Berryessa (Infant Exposure)

Emissions Year	Exhaust PM10/DPM (µg/m3)	Cancer Risk (per million)	Hazard Index	Annual PM2.5 Concentration
		Infant	(-)	(µg/m3)
2029-2034	0.0011	2.73	0.000	0.0011

Option 1 Project Traffic Impacts - Genuis Kids Berryessa (Infant Exposure)

Emissions Year	DPM (µg/m3)	Exhaust TOG (µg/m3)	Evaporative TOG (µg/m3)	Cancer Risk (per million)	Hazard Index	Annual PM2.5 Concentration
				Infant	(-)	(µg/m3)
2029-2034	0.0003	0.0133	0.0186	0.27	0.008	0.0266

Option 2 Project Traffic Impacts - Genuis Kids Berryessa (Infant Exposure)

Emissions Year	DPM (µg/m3)	Exhaust TOG (µg/m3)	Evaporative TOG (µg/m3)	Cancer Risk (per million)	Hazard Index	Annual PM2.5 Concentration
				Infant	(-)	(µg/m3)
2029-2034	0.0003	0.0143	0.0201	0.30	0.009	0.0286

Flea Market, San Jose CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Genuis Kids Berryessa Preschool and Daycare - 1.0 meters - Infant Exposure

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	School 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	180	180
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

		Child - Exposure Information				Maximum		
Exposure Year	Exposure Duration (years)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
						0.00	0.00	0.01
1	1	2023	0.0025	10	1.07	0.0005	0.0029	0.0054
2	1	2024	0.0022	10	0.95	0.0004	0.0003	0.0024
3	1	2025	0.0020	10	0.88	0.0004	0.0003	0.0023
4	1	2026	0.0020	10	0.88	0.0004	0.0003	0.0023
5	1	2027	0.0020	10	0.88	0.0004	0.0003	0.0023
6	1	2028	0.0011	10	0.49	0.0002	0.0002	0.0013
				TOTAL	**5.1**			

*The preschool/daycare provides full-time services for infants (2 months) to children (12 years old)
The program operates Monday through Friday from 8:00am to 6:30pm
Link: https://geniuskidsonline.com/fd/GeniusKidsSanJoseBerryessa-SanJose

Flea Market, San Jose CA - Generator Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations
Genuis Kids Berryessa Preschool and Daycare - 1.0 meters - Infant Exposure

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/0.14 hrs) x (7 days/365 days) = 3.29
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	School 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	180	180
AT =	70	70	70
SAF =	3.29	3.29	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)
1	1	2023	0.0000	10	0.00
2	1	2024	0.0000	10	0.00
3	1	2025	0.0000	10	0.00
4	1	2026	0.0000	10	0.00
5	1	2027	0.0000	10	0.00
6	1	2028	0.0000	10	0.00
7	1	2029	0.0011	10	0.45
8	1	2030	0.0011	10	0.45
9	1	2031	0.0011	10	0.45
10	1	2032	0.0011	10	0.45
11	1	2033	0.0011	10	0.45
12	1	2034	0.0011	10	0.45
				TOTAL	**2.7**

Maximum Hazard Index	Maximum Total PM2.5
0.00	0.00
0.0002	0.0011

*The preschool/daycare provides full-time services for infants (2 months) to children (12 years old)
The program operates Monday through Friday from 8:00am to 6:30pm
Link: https://geniuskidsonline.com/fd/GeniusKidsSanJoseBerryessa-SanJose

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 1 Project Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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	School Child	Adult
Age -->	**0 - 2**	**2 - 16**	**16 - 30**
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	572	261
A =	1	1	1
EF =	250	350	350
AT =	70	70	70
FAH =	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	Maximum	
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG		Hazard Index	Total PM2.5
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00	0.01	0.03
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
3	1	2 - 3	2025	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
4	1	3 - 4	2026	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
5	1	4 - 5	2027	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
6	1	5 - 6	2028	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
7	1	6 - 7	2029	10	0.0003	0.0133	0.0186	0.040	0.010	0.0008	0.05		
8	1	7 - 8	2030	10	0.0003	0.0133	0.0186	0.040	0.010	0.0008	0.05		
9	1	8 - 9	2031	10	0.0003	0.0133	0.0186	0.040	0.010	0.0008	0.05		
10	1	9 - 10	2032	10	0.0003	0.0133	0.0186	0.040	0.010	0.0008	0.05		
11	1	10 - 11	2033	10	0.0003	0.0133	0.0186	0.040	0.010	0.0008	0.05		
Total Increased Cancer Risk								0.22	0.053	0.004	**0.27**		

* Third trimester of pregnancy

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 1 Project Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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	School Child	Adult
Age -->	**0 - 2**	**2 - 16**	**16 - 30**
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	572	261
A =	1	1	1
EF =	250	350	350
AT =	70	70	70
FAH =	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	Maximum	
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG		Hazard Index	Total PM2.5
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00	0.01	0.03
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
3	1	2 - 3	2025	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
4	1	3 - 4	2026	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
5	1	4 - 5	2027	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
6	1	5 - 6	2028	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
7	1	6 - 7	2029	10	0.0003	0.0143	0.0201	0.044	0.011	0.0009	0.06		
8	1	7 - 8	2030	10	0.0003	0.0143	0.0201	0.044	0.011	0.0009	0.06		
9	1	8 - 9	2031	10	0.0003	0.0143	0.0201	0.044	0.011	0.0009	0.06		
10	1	9 - 10	2032	10	0.0003	0.0143	0.0201	0.044	0.011	0.0009	0.06		
11	1	10 - 11	2033	10	0.0003	0.0143	0.0201	0.044	0.011	0.0009	0.06		
Total Increased Cancer Risk								0.24	0.056	0.005	**0.30**		

* Third trimester of pregnancy

Flea Market, San Jose, CA
Project Construction and Operation Health Impacts Summary

Project Construction Impacts - Best Brains Berryessa (Child Exposure)

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM (µg/m3)	Maximum Concentrations: Fugitive PM2.5 (µg/m3)	Cancer Risk (per million) Child	Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m3)
2023	0.0025	0.0029	0.09	0.0005	0.01
2024	0.0022	0.0003	0.08	0.0004	0.00
2025	0.0020	0.0003	0.07	0.0004	0.00
2026	0.0020	0.0003	0.07	0.0004	0.00
2027	0.0020	0.0003	0.07	0.0004	0.00
2028	0.0011	0.0002	0.04	0.0002	0.00
Total	-	-	**0.4**	-	-
Maximum	0.0025	0.0029	-	0.0005	0.0054

Project Generator Impacts - Best Brains Berryessa (Child Exposure)

Emissions Year	Exhaust PM10/DPM (µg/m3)	Cancer Risk (per million) Child	Hazard Index (-)	Annual PM2.5 Concentration (µg/m3)
2029-2034	0.0011	0.22	0.0002	0.0011

Option 1 Project Traffic Impacts - Best Brains Berryessa (Child Exposure)

Emissions Year	DPM (µg/m3)	Exhaust TOG (µg/m3)	Evaporative TOG (µg/m3)	Cancer Risk (per million) Child	Hazard Index (-)	Annual PM2.5 Concentration (µg/m3)
2029-2034	0.0003	0.0133	0.0186	0.03	0.001	0.027

Option 2 Project Traffic Impacts - Best Brains Berryessa (Child Exposure)

Emissions Year	DPM (µg/m3)	Exhaust TOG (µg/m3)	Evaporative TOG (µg/m3)	Cancer Risk (per million) Child	Hazard Index (-)	Annual PM2.5 Concentration (µg/m3)
2029-2034	0.0003	0.0143	0.0201	0.03	0.001	0.027

Flea Market, San Jose CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
Best Brains Berryessa - 1.0 meters - Child Exposure

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	School 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 =	350	156	250
AT =	70	70	70
SAF =	3.36	3.36	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

		Child - Exposure Information			Child	Maximum		
Exposure Year	Exposure Duration (years)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Cancer Risk (per million)	Hazard Index 0.00	Fugitive PM2.5 0.00	Total PM2.5 0.01
1	1	2023	0.0025	3	0.09	0.0005	0.0029	0.0054
2	1	2024	0.0022	3	0.08	0.0004	0.0003	0.0024
3	1	2025	0.0020	3	0.07	0.0004	0.0003	0.0023
4	1	2026	0.0020	3	0.07	0.0004	0.0003	0.002
5	1	2027	0.0020	3	0.07	0.0004	0.0003	0.002
6	1	2028	0.0011	3	0.04	0.0002	0.0002	0.001
				TOTAL	**0.4**			

* Learning center teaches students ages 3-14 years old
Operates Tuesday and Thursday from 4:00pm-7:00pm and on Saturday from 10:00am-1:00pm --> 365 days year * (3 days week /7 days per week) --> 156 days per year approximately
Link: https://bestbrains.com/sanjoseberryessa

Flea Market, San Jose CA - Generator Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations
Genuis Kids Berryessa Preschool and Daycare - 1.0 meters - Infant Exposure

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/0.14 hrs) x (7 days/365 days) = 3.29
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	School 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 =	180	156	180
AT =	70	70	70
SAF =	1.00	3.29	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Maximum Impact Receptor Location

		Child - Exposure Information			Child	Maximum	
		DPM Conc (ug/m3)		Age*	Cancer	Hazard	Total
Exposure Year	Exposure Duration (years)	Year	Annual	Sensitivity Factor	Risk (per million)	Index	PM2.5
1	1	2023	0.0000	10	0.00	0.00	0.00
2	1	2024	0.0000	10	0.00	0.0002	0.0011
3	1	2025	0.0000	10	0.00		
4	1	2026	0.0000	10	0.00		
5	1	2027	0.0000	10	0.00		
6	1	2028	0.0000	10	0.00		
7	1	2029	0.0011	3	0.04		
8	1	2030	0.0011	3	0.04		
9	1	2031	0.0011	3	0.04		
10	1	2032	0.0011	3	0.04		
11	1	2033	0.0011	3	0.04		
12	1	2034	0.0011	3	0.04		
				TOTAL	**0.2**		

* Learning center teaches students ages 3-14 years old
Operates Tuesday and Thursday from 4:00pm-7:00pm and on Saturday from 10:00am-1:00pm --> 365 days year * (3 days week /7 days per week) --> 156 days per year approximately
Link: https://bestbrains.com/sanjoseberryessa

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 1 Project Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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	School Child	Adult
Age -->	**0 - 2**	**2 - 16**	**16 - 30**
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	261
A =	1	1	1
EF =	350	156	350
AT =	70	70	70
FAH =	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	Maximum	
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG		Hazard Index	Total PM2.5
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00	0.00	0.03
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
3	1	2 - 3	2025	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
4	1	3 - 4	2026	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
5	1	4 - 5	2027	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
6	1	5 - 6	2028	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
7	1	6 - 7	2029	3	0.0003	0.0133	0.0186	0.003	0.001	0.0001	0.00		
8	1	7 - 8	2030	3	0.0003	0.0133	0.0186	0.003	0.001	0.0001	0.00		
9	1	8 - 9	2031	3	0.0003	0.0133	0.0186	0.003	0.001	0.0001	0.00		
10	1	9 - 10	2032	3	0.0003	0.0133	0.0186	0.003	0.001	0.0001	0.00		
11	1	10 - 11	2033	3	0.0003	0.0133	0.0186	0.003	0.001	0.0001	0.00		
Total Increased Cancer Risk								0.03	0.006	0.001	**0.03**		

* Third trimester of pregnancy

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 2 Project Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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	School Child	Adult
Age -->	**0 - 2**	**2 - 16**	**16 - 30**
Parameter			
ASF =	10	3	1
8-Hr BR* =	1200	520	261
A =	1	1	1
EF =	350	156	350
AT =	70	70	70
FAH =	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	Maximum	
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG		Hazard Index	Total PM2.5
1	1	0 - 1	2023	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00	0.001	0.03
2	1	1 - 2	2024	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
3	1	2 - 3	2025	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
4	1	3 - 4	2026	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
5	1	4 - 5	2027	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
6	1	5 - 6	2028	10	0.0000	0.0000	0.0000	0.000	0.000	0.0000	0.00		
7	1	6 - 7	2029	3	0.0003	0.0143	0.0201	0.004	0.001	0.0001	0.00		
8	1	7 - 8	2030	3	0.0003	0.0143	0.0201	0.004	0.001	0.0001	0.00		
9	1	8 - 9	2031	3	0.0003	0.0143	0.0201	0.004	0.001	0.0001	0.00		
10	1	9 - 10	2032	3	0.0003	0.0143	0.0201	0.004	0.001	0.0001	0.00		
11	1	10 - 11	2033	3	0.0003	0.0143	0.0201	0.004	0.001	0.0001	0.00		
Total Increased Cancer Risk								0.03	0.006	0.001	**0.03**		

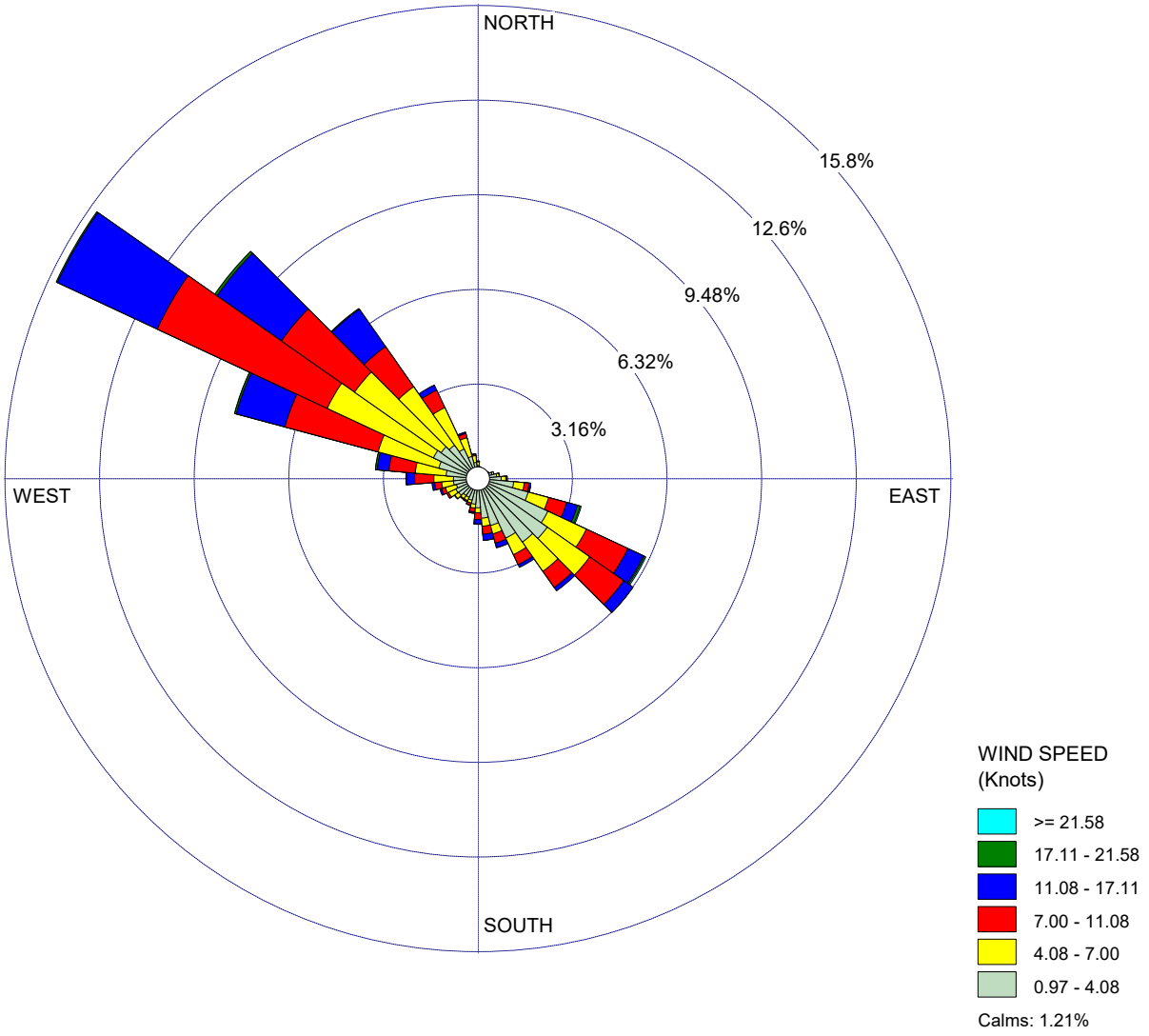
* Third trimester of pregnancy

WIND ROSE PLOT:

San Jose International Airport
2013-2017 Meteorological Data 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: **8/17/2020**	PROJECT NO.:

Attachment 5: Cumulative Community Risk from TAC Sources

ROADWAY DISPERSON MODELING INPUTS & CALCULATIONS

CT-EMFAC2017 Emission Factors

```
           File Name:   Santa Clara (SF) - 2030 - Annual.EF
CT-EMFAC2017 Version:   1.0.2.27401
            Run Date:   6/26/2020 12:20:47 AM
                Area:   Santa Clara (SF)
       Analysis Year:   2030
              Season:   Annual

======================================================================

Vehicle Category        VMT Fraction            Diesel VMT Fraction     Gas VMT Fraction
                        Across Category         Within Category         Within Category
         Truck 1             0.027                   0.525                   0.475
         Truck 2             0.037                   0.932                   0.051
       Non-Truck             0.936                   0.015                   0.941

======================================================================

               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     10 mph     15 mph     20 mph     25 mph     30 mph     35 mph     40 mph
                PM2.5   0.004355   0.002997   0.002176   0.001680   0.001390   0.001236   0.001179
                  TOG   0.097278   0.064448   0.044938   0.033974   0.027168   0.022780   0.020015
            Diesel PM   0.000773   0.000620   0.000512   0.000453   0.000436   0.000454   0.000504
                 DEOG   0.013497   0.006981   0.003374   0.002309   0.001819   0.001489   0.001268

======================================================================

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

       Pollutant Name   Emission Factor
                  TOG          1.054167

======================================================================

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

       Pollutant Name   Emission Factor
                PM2.5          0.002196

======================================================================

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

       Pollutant Name   Emission Factor
                PM2.5          0.017363

======================================================================

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

       Pollutant Name   Emission Factor
                PM2.5          0.016912

============================END=======================================
```

Traffic Volumes for Roadway Modeling

San Jose Flea Market - Road Segments for Modeling & ADTs

2030 Project Trips

Mabury Road Modeling - 35 mph

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	513	2,337	2,850
WB Mabury	690	2,542	3,232
Total	1,203	4,879	6,082

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	535	2,536	3,071
WB Mabury	499	2,296	2,795
Total	1,034	4,832	5,866

Berryessa Road - 40 mph

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	1,874	2,452	4,326
WB Berryessa	1,901	2,801	4,702
Total	3,775	5,253	9,028

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	1,950	2,725	4,675
WB Berryessa	2,133	2,765	4,898
Total	4,083	5,490	9,573

2030 Total with Project Trips

Mabury Road Modeling

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	14,664	18,408	33,072
WB Mabury	18,636	23,082	41,718
Total	33,300	41,490	74,790

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Mabury	13,752	17,376	31,128
WB Mabury	18,012	21,636	39,648
Total	31,764	39,012	70,776

Berryessa Road

Proposed Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	17,994	19,560	37,554
WB Berryessa	21,540	23,646	45,186
Total	39,534	43,206	82,740

City's Project

Road	East of Sierra Road (ADT)	West of Sierra Road (ADT)	Total
EB Berryessa	15,810	17,442	33,252
WB Berryessa	19,368	21,552	40,920
Total	35,178	38,994	74,172

CUMULATIVE WITH PROPOSED PROJECT ROAD EMISSIONS

Mabury Road

San Jose Flea Market - Proposed Project Cumulative -Roadway Emissions
Eastbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_DPM	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	43.7	3.4	35	14,664
EBMWS_DPM	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	43.7	3.4	35	18,408
									Total	33,072

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	583	1.89E-05	9	6.45%	945	3.07E-05	17	5.61%	822	2.67E-05
2	2.63%	386	1.25E-05	10	7.45%	1093	3.54E-05	18	3.20%	469	1.52E-05
3	2.86%	419	1.36E-05	11	6.39%	937	3.04E-05	19	2.19%	321	1.04E-05
4	3.25%	476	1.54E-05	12	7.01%	1027	3.33E-05	20	0.85%	124	4.03E-06
5	2.18%	320	1.04E-05	13	6.28%	921	2.99E-05	21	3.09%	453	1.47E-05
6	3.30%	484	1.57E-05	14	6.17%	904	2.93E-05	22	4.26%	625	2.03E-05
7	6.05%	888	2.88E-05	15	5.10%	748	2.43E-05	23	2.58%	378	1.22E-05
8	4.43%	650	2.11E-05	16	3.87%	568	1.84E-05	24	0.84%	123	3.99E-06
								Total		14,664	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	732	1.98E-05	9	6.45%	1187	3.20E-05	17	5.61%	1032	2.79E-05
2	2.63%	484	1.31E-05	10	7.45%	1372	3.70E-05	18	3.20%	589	1.59E-05
3	2.86%	526	1.42E-05	11	6.39%	1176	3.18E-05	19	2.19%	403	1.09E-05
4	3.25%	598	1.61E-05	12	7.01%	1290	3.48E-05	20	0.85%	156	4.21E-06
5	2.18%	402	1.09E-05	13	6.28%	1156	3.12E-05	21	3.09%	568	1.53E-05
6	3.30%	608	1.64E-05	14	6.17%	1135	3.06E-05	22	4.26%	785	2.12E-05
7	6.05%	1114	3.01E-05	15	5.10%	939	2.54E-05	23	2.58%	474	1.28E-05
8	4.43%	816	2.20E-05	16	3.87%	712	1.92E-05	24	0.84%	155	4.17E-06
								Total		18,408	

San Jose Flea Market - Proposed Project Cumulative -Roadway Emissions
Eastbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_PM25	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	14,664
EBMWS_PM25	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	33,072

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	168	1.48E-05	9	7.11%	1043	9.21E-05	17	7.39%	1084	9.57E-05
2	0.42%	62	5.43E-06	10	4.39%	643	5.68E-05	18	8.18%	1200	1.06E-04
3	0.40%	59	5.22E-06	11	4.66%	684	6.03E-05	19	5.70%	836	7.38E-05
4	0.26%	38	3.33E-06	12	5.89%	863	7.62E-05	20	4.28%	627	5.54E-05
5	0.49%	72	6.39E-06	13	6.15%	902	7.96E-05	21	3.25%	477	4.21E-05
6	0.90%	132	1.17E-05	14	6.04%	885	7.82E-05	22	3.30%	484	4.27E-05
7	3.79%	555	4.90E-05	15	7.01%	1028	9.08E-05	23	2.46%	361	3.19E-05
8	7.76%	1138	1.01E-04	16	7.14%	1047	9.25E-05	24	1.86%	273	2.41E-05
								Total		14,664	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	1.55E-05	9	7.11%	1310	9.62E-05	17	7.39%	1361	1.00E-04
2	0.42%	77	5.68E-06	10	4.39%	808	5.94E-05	18	8.18%	1506	1.11E-04
3	0.40%	74	5.46E-06	11	4.66%	858	6.31E-05	19	5.70%	1049	7.71E-05
4	0.26%	47	3.47E-06	12	5.89%	1084	7.96E-05	20	4.28%	787	5.79E-05
5	0.49%	91	6.68E-06	13	6.15%	1132	8.32E-05	21	3.25%	599	4.40E-05
6	0.90%	166	1.22E-05	14	6.04%	1111	8.17E-05	22	3.30%	607	4.46E-05
7	3.79%	697	5.12E-05	15	7.01%	1291	9.49E-05	23	2.46%	453	3.33E-05
8	7.76%	1429	1.05E-04	16	7.14%	1315	9.66E-05	24	1.86%	343	2.52E-05
								Total		18,408	

San Jose Flea Market - Proposed Project Cumulative -Roadway Emissions
Eastbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEXH	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	14,664
EBMWS_TEXH	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	33,072

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	168	2.56E-04	9	7.11%	1043	1.59E-03	17	7.39%	1084	1.65E-03
2	0.42%	62	9.36E-05	10	4.39%	643	9.79E-04	18	8.18%	1200	1.82E-03
3	0.40%	59	8.99E-05	11	4.66%	684	1.04E-03	19	5.70%	836	1.27E-03
4	0.26%	38	5.73E-05	12	5.89%	863	1.31E-03	20	4.28%	627	9.54E-04
5	0.49%	72	1.10E-04	13	6.15%	902	1.37E-03	21	3.25%	477	7.25E-04
6	0.90%	132	2.01E-04	14	6.04%	885	1.35E-03	22	3.30%	484	7.36E-04
7	3.79%	555	8.45E-04	15	7.01%	1028	1.56E-03	23	2.46%	361	5.49E-04
8	7.76%	1138	1.73E-03	16	7.14%	1047	1.59E-03	24	1.86%	273	4.16E-04
								Total		14,664	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	2.67E-04	9	7.11%	1310	1.66E-03	17	7.39%	1361	1.72E-03
2	0.42%	77	9.78E-05	10	4.39%	808	1.02E-03	18	8.18%	1506	1.91E-03
3	0.40%	74	9.40E-05	11	4.66%	858	1.09E-03	19	5.70%	1049	1.33E-03
4	0.26%	47	5.99E-05	12	5.89%	1084	1.37E-03	20	4.28%	787	9.97E-04
5	0.49%	91	1.15E-04	13	6.15%	1132	1.43E-03	21	3.25%	599	7.58E-04
6	0.90%	166	2.10E-04	14	6.04%	1111	1.41E-03	22	3.30%	607	7.69E-04
7	3.79%	697	8.83E-04	15	7.01%	1291	1.63E-03	23	2.46%	453	5.74E-04
8	7.76%	1429	1.81E-03	16	7.14%	1315	1.66E-03	24	1.86%	343	4.35E-04
								Total		18,408	

San Jose Flea Market - Proposed Project Cumulative -Roadway Emissions
Eastbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEVAP	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	14,664
EBMWS_TEVAP	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	33,072

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	168	3.62E-04	9	7.11%	1043	2.24E-03	17	7.39%	1084	2.33E-03
2	0.42%	62	1.32E-04	10	4.39%	643	1.38E-03	18	8.18%	1200	2.58E-03
3	0.40%	59	1.27E-04	11	4.66%	684	1.47E-03	19	5.70%	836	1.80E-03
4	0.26%	38	8.10E-05	12	5.89%	863	1.86E-03	20	4.28%	627	1.35E-03
5	0.49%	72	1.56E-04	13	6.15%	902	1.94E-03	21	3.25%	477	1.03E-03
6	0.90%	132	2.85E-04	14	6.04%	885	1.90E-03	22	3.30%	484	1.04E-03
7	3.79%	555	1.19E-03	15	7.01%	1028	2.21E-03	23	2.46%	361	7.77E-04
8	7.76%	1138	2.45E-03	16	7.14%	1047	2.25E-03	24	1.86%	273	5.88E-04
								Total		14,664	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	3.78E-04	9	7.11%	1310	2.35E-03	17	7.39%	1361	2.44E-03
2	0.42%	77	1.38E-04	10	4.39%	808	1.45E-03	18	8.18%	1506	2.70E-03
3	0.40%	74	1.33E-04	11	4.66%	858	1.54E-03	19	5.70%	1049	1.88E-03
4	0.26%	47	8.47E-05	12	5.89%	1084	1.94E-03	20	4.28%	787	1.41E-03
5	0.49%	91	1.63E-04	13	6.15%	1132	2.03E-03	21	3.25%	599	1.07E-03
6	0.90%	166	2.98E-04	14	6.04%	1111	1.99E-03	22	3.30%	607	1.09E-03
7	3.79%	697	1.25E-03	15	7.01%	1291	2.31E-03	23	2.46%	453	8.12E-04
8	7.76%	1429	2.56E-03	16	7.14%	1315	2.35E-03	24	1.86%	343	6.15E-04
								Total		18,408	

San Jose Flea Market - Proposed Project Cumulative -Roadway Emissions
Eastbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_FUG	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	14,664
EBMWS_FUG	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	33,072

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	168	4.38E-04	9	7.11%	1043	2.72E-03	17	7.39%	1084	2.82E-03
2	0.42%	62	1.60E-04	10	4.39%	643	1.68E-03	18	8.18%	1200	3.13E-03
3	0.40%	59	1.54E-04	11	4.66%	684	1.78E-03	19	5.70%	836	2.18E-03
4	0.26%	38	9.81E-05	12	5.89%	863	2.25E-03	20	4.28%	627	1.63E-03
5	0.49%	72	1.89E-04	13	6.15%	902	2.35E-03	21	3.25%	477	1.24E-03
6	0.90%	132	3.45E-04	14	6.04%	885	2.31E-03	22	3.30%	484	1.26E-03
7	3.79%	555	1.45E-03	15	7.01%	1028	2.68E-03	23	2.46%	361	9.40E-04
8	7.76%	1138	2.97E-03	16	7.14%	1047	2.73E-03	24	1.86%	273	7.12E-04
								Total		14,664	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	4.58E-04	9	7.11%	1310	2.84E-03	17	7.39%	1361	2.95E-03
2	0.42%	77	1.68E-04	10	4.39%	808	1.75E-03	18	8.18%	1506	3.27E-03
3	0.40%	74	1.61E-04	11	4.66%	858	1.86E-03	19	5.70%	1049	2.28E-03
4	0.26%	47	1.03E-04	12	5.89%	1084	2.35E-03	20	4.28%	787	1.71E-03
5	0.49%	91	1.97E-04	13	6.15%	1132	2.46E-03	21	3.25%	599	1.30E-03
6	0.90%	166	3.60E-04	14	6.04%	1111	2.41E-03	22	3.30%	607	1.32E-03
7	3.79%	697	1.51E-03	15	7.01%	1291	2.80E-03	23	2.46%	453	9.83E-04
8	7.76%	1429	3.10E-03	16	7.14%	1315	2.85E-03	24	1.86%	343	7.44E-04
								Total		18,408	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_DPM	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	43.7	3.4	35	18,636
WBMWS_DPM	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	43.7	3.4	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	741	2.39E-05	9	6.45%	1201	3.88E-05	17	5.61%	1045	3.38E-05
2	2.63%	490	1.58E-05	10	7.45%	1389	4.49E-05	18	3.20%	596	1.93E-05
3	2.86%	532	1.72E-05	11	6.39%	1191	3.85E-05	19	2.19%	408	1.32E-05
4	3.25%	605	1.96E-05	12	7.01%	1306	4.22E-05	20	0.85%	158	5.10E-06
5	2.18%	407	1.31E-05	13	6.28%	1170	3.78E-05	21	3.09%	575	1.86E-05
6	3.30%	616	1.99E-05	14	6.17%	1149	3.71E-05	22	4.26%	794	2.57E-05
7	6.05%	1128	3.65E-05	15	5.10%	951	3.07E-05	23	2.58%	480	1.55E-05
8	4.43%	826	2.67E-05	16	3.87%	721	2.33E-05	24	0.84%	157	5.06E-06
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	918	2.50E-05	9	6.45%	1488	4.05E-05	17	5.61%	1294	3.53E-05
2	2.63%	607	1.66E-05	10	7.45%	1720	4.69E-05	18	3.20%	738	2.01E-05
3	2.86%	659	1.80E-05	11	6.39%	1475	4.02E-05	19	2.19%	506	1.38E-05
4	3.25%	750	2.04E-05	12	7.01%	1617	4.41E-05	20	0.85%	195	5.33E-06
5	2.18%	504	1.37E-05	13	6.28%	1449	3.95E-05	21	3.09%	712	1.94E-05
6	3.30%	763	2.08E-05	14	6.17%	1423	3.88E-05	22	4.26%	984	2.68E-05
7	6.05%	1397	3.81E-05	15	5.10%	1178	3.21E-05	23	2.58%	594	1.62E-05
8	4.43%	1023	2.79E-05	16	3.87%	893	2.43E-05	24	0.84%	194	5.28E-06
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

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
WBMES_PM25	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_PM25	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	1.88E-05	9	7.11%	1326	1.17E-04	17	7.39%	1378	1.21E-04
2	0.42%	78	6.88E-06	10	4.39%	818	7.19E-05	18	8.18%	1525	1.34E-04
3	0.40%	75	6.61E-06	11	4.66%	869	7.64E-05	19	5.70%	1062	9.34E-05
4	0.26%	48	4.21E-06	12	5.89%	1097	9.65E-05	20	4.28%	797	7.01E-05
5	0.49%	92	8.09E-06	13	6.15%	1146	1.01E-04	21	3.25%	606	5.33E-05
6	0.90%	168	1.48E-05	14	6.04%	1125	9.90E-05	22	3.30%	615	5.41E-05
7	3.79%	706	6.21E-05	15	7.01%	1307	1.15E-04	23	2.46%	459	4.04E-05
8	7.76%	1447	1.27E-04	16	7.14%	1331	1.17E-04	24	1.86%	348	3.06E-05
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	1.96E-05	9	7.11%	1642	1.22E-04	17	7.39%	1706	1.27E-04
2	0.42%	97	7.19E-06	10	4.39%	1013	7.51E-05	18	8.18%	1889	1.40E-04
3	0.40%	93	6.91E-06	11	4.66%	1076	7.98E-05	19	5.70%	1316	9.76E-05
4	0.26%	59	4.40E-06	12	5.89%	1359	1.01E-04	20	4.28%	987	7.33E-05
5	0.49%	114	8.46E-06	13	6.15%	1420	1.05E-04	21	3.25%	751	5.57E-05
6	0.90%	208	1.55E-05	14	6.04%	1394	1.03E-04	22	3.30%	762	5.65E-05
7	3.79%	874	6.49E-05	15	7.01%	1619	1.20E-04	23	2.46%	568	4.22E-05
8	7.76%	1792	1.33E-04	16	7.14%	1649	1.22E-04	24	1.86%	430	3.19E-05
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEXH	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_TEXH	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	3.24E-04	9	7.11%	1326	2.01E-03	17	7.39%	1378	2.09E-03
2	0.42%	78	1.18E-04	10	4.39%	818	1.24E-03	18	8.18%	1525	2.31E-03
3	0.40%	75	1.14E-04	11	4.66%	869	1.32E-03	19	5.70%	1062	1.61E-03
4	0.26%	48	7.25E-05	12	5.89%	1097	1.66E-03	20	4.28%	797	1.21E-03
5	0.49%	92	1.39E-04	13	6.15%	1146	1.74E-03	21	3.25%	606	9.18E-04
6	0.90%	168	2.55E-04	14	6.04%	1125	1.70E-03	22	3.30%	615	9.32E-04
7	3.79%	706	1.07E-03	15	7.01%	1307	1.98E-03	23	2.46%	459	6.95E-04
8	7.76%	1447	2.19E-03	16	7.14%	1331	2.02E-03	24	1.86%	348	5.27E-04
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	3.38E-04	9	7.11%	1642	2.10E-03	17	7.39%	1706	2.18E-03
2	0.42%	97	1.24E-04	10	4.39%	1013	1.29E-03	18	8.18%	1889	2.41E-03
3	0.40%	93	1.19E-04	11	4.66%	1076	1.37E-03	19	5.70%	1316	1.68E-03
4	0.26%	59	7.58E-05	12	5.89%	1359	1.74E-03	20	4.28%	987	1.26E-03
5	0.49%	114	1.46E-04	13	6.15%	1420	1.81E-03	21	3.25%	751	9.59E-04
6	0.90%	208	2.66E-04	14	6.04%	1394	1.78E-03	22	3.30%	762	9.73E-04
7	3.79%	874	1.12E-03	15	7.01%	1619	2.07E-03	23	2.46%	568	7.26E-04
8	7.76%	1792	2.29E-03	16	7.14%	1649	2.11E-03	24	1.86%	430	5.50E-04
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEVAP	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_TEVAP	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	4.58E-04	9	7.11%	1326	2.84E-03	17	7.39%	1378	2.95E-03
2	0.42%	78	1.68E-04	10	4.39%	818	1.75E-03	18	8.18%	1525	3.27E-03
3	0.40%	75	1.61E-04	11	4.66%	869	1.86E-03	19	5.70%	1062	2.28E-03
4	0.26%	48	1.03E-04	12	5.89%	1097	2.35E-03	20	4.28%	797	1.71E-03
5	0.49%	92	1.97E-04	13	6.15%	1146	2.46E-03	21	3.25%	606	1.30E-03
6	0.90%	168	3.61E-04	14	6.04%	1125	2.41E-03	22	3.30%	615	1.32E-03
7	3.79%	706	1.51E-03	15	7.01%	1307	2.80E-03	23	2.46%	459	9.83E-04
8	7.76%	1447	3.10E-03	16	7.14%	1331	2.85E-03	24	1.86%	348	7.45E-04
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	4.79E-04	9	7.11%	1642	2.97E-03	17	7.39%	1706	3.08E-03
2	0.42%	97	1.75E-04	10	4.39%	1013	1.83E-03	18	8.18%	1889	3.41E-03
3	0.40%	93	1.68E-04	11	4.66%	1076	1.95E-03	19	5.70%	1316	2.38E-03
4	0.26%	59	1.07E-04	12	5.89%	1359	2.46E-03	20	4.28%	987	1.79E-03
5	0.49%	114	2.06E-04	13	6.15%	1420	2.57E-03	21	3.25%	751	1.36E-03
6	0.90%	208	3.77E-04	14	6.04%	1394	2.52E-03	22	3.30%	762	1.38E-03
7	3.79%	874	1.58E-03	15	7.01%	1619	2.93E-03	23	2.46%	568	1.03E-03
8	7.76%	1792	3.24E-03	16	7.14%	1649	2.98E-03	24	1.86%	430	7.78E-04
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_FUG	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_FUG	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	5.55E-04	9	7.11%	1326	3.44E-03	17	7.39%	1378	3.58E-03
2	0.42%	78	2.03E-04	10	4.39%	818	2.12E-03	18	8.18%	1525	3.96E-03
3	0.40%	75	1.95E-04	11	4.66%	869	2.25E-03	19	5.70%	1062	2.76E-03
4	0.26%	48	1.24E-04	12	5.89%	1097	2.85E-03	20	4.28%	797	2.07E-03
5	0.49%	92	2.39E-04	13	6.15%	1146	2.98E-03	21	3.25%	606	1.57E-03
6	0.90%	168	4.37E-04	14	6.04%	1125	2.92E-03	22	3.30%	615	1.60E-03
7	3.79%	706	1.83E-03	15	7.01%	1307	3.39E-03	23	2.46%	459	1.19E-03
8	7.76%	1447	3.76E-03	16	7.14%	1331	3.46E-03	24	1.86%	348	9.02E-04
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	5.79E-04	9	7.11%	1642	3.59E-03	17	7.39%	1706	3.74E-03
2	0.42%	97	2.12E-04	10	4.39%	1013	2.22E-03	18	8.18%	1889	4.13E-03
3	0.40%	93	2.04E-04	11	4.66%	1076	2.36E-03	19	5.70%	1316	2.88E-03
4	0.26%	59	1.30E-04	12	5.89%	1359	2.97E-03	20	4.28%	987	2.16E-03
5	0.49%	114	2.50E-04	13	6.15%	1420	3.11E-03	21	3.25%	751	1.64E-03
6	0.90%	208	4.56E-04	14	6.04%	1394	3.05E-03	22	3.30%	762	1.67E-03
7	3.79%	874	1.91E-03	15	7.01%	1619	3.54E-03	23	2.46%	568	1.24E-03
8	7.76%	1792	3.92E-03	16	7.14%	1649	3.61E-03	24	1.86%	430	9.42E-04
								Total		23,082	

Berryessa Road

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_DPM	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	43.7	3.4	40	17,994
EBBWS_DPM	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	43.7	3.4	40	19,560
									Total	37,554

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	715	3.74E-05	9	6.45%	1160	6.06E-05	17	5.61%	1009	5.27E-05
2	2.63%	474	2.47E-05	10	7.45%	1341	7.01E-05	18	3.20%	576	3.01E-05
3	2.86%	514	2.68E-05	11	6.39%	1150	6.01E-05	19	2.19%	394	2.06E-05
4	3.25%	584	3.05E-05	12	7.01%	1261	6.59E-05	20	0.85%	152	7.96E-06
5	2.18%	393	2.05E-05	13	6.28%	1130	5.90E-05	21	3.09%	555	2.90E-05
6	3.30%	594	3.11E-05	14	6.17%	1110	5.80E-05	22	4.26%	767	4.01E-05
7	6.05%	1089	5.69E-05	15	5.10%	918	4.80E-05	23	2.58%	463	2.42E-05
8	4.43%	797	4.17E-05	16	3.87%	696	3.64E-05	24	0.84%	151	7.90E-06
								Total		17,994	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	778	4.11E-05	9	6.45%	1261	6.67E-05	17	5.61%	1097	5.80E-05
2	2.63%	515	2.72E-05	10	7.45%	1458	7.71E-05	18	3.20%	626	3.31E-05
3	2.86%	559	2.95E-05	11	6.39%	1250	6.61E-05	19	2.19%	428	2.27E-05
4	3.25%	635	3.36E-05	12	7.01%	1370	7.25E-05	20	0.85%	166	8.76E-06
5	2.18%	427	2.26E-05	13	6.28%	1228	6.49E-05	21	3.09%	604	3.19E-05
6	3.30%	646	3.42E-05	14	6.17%	1206	6.38E-05	22	4.26%	834	4.41E-05
7	6.05%	1184	6.26E-05	15	5.10%	998	5.28E-05	23	2.58%	504	2.66E-05
8	4.43%	867	4.58E-05	16	3.87%	757	4.00E-05	24	0.84%	164	8.69E-06
								Total		19,560	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_PM25	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	17,994
EBBWS_PM25	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	19,560
									Total	37,554

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	206	2.52E-05	9	7.11%	1280	1.56E-04	17	7.39%	1330	1.63E-04
2	0.42%	76	9.23E-06	10	4.39%	790	9.65E-05	18	8.18%	1472	1.80E-04
3	0.40%	73	8.87E-06	11	4.66%	839	1.03E-04	19	5.70%	1026	1.25E-04
4	0.26%	46	5.65E-06	12	5.89%	1059	1.29E-04	20	4.28%	770	9.41E-05
5	0.49%	89	1.09E-05	13	6.15%	1107	1.35E-04	21	3.25%	585	7.15E-05
6	0.90%	162	1.99E-05	14	6.04%	1086	1.33E-04	22	3.30%	594	7.26E-05
7	3.79%	682	8.33E-05	15	7.01%	1262	1.54E-04	23	2.46%	443	5.41E-05
8	7.76%	1397	1.71E-04	16	7.14%	1285	1.57E-04	24	1.86%	336	4.10E-05
								Total		17,994	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	224	2.77E-05	9	7.11%	1391	1.72E-04	17	7.39%	1446	1.79E-04
2	0.42%	82	1.02E-05	10	4.39%	858	1.06E-04	18	8.18%	1601	1.98E-04
3	0.40%	79	9.76E-06	11	4.66%	912	1.13E-04	19	5.70%	1115	1.38E-04
4	0.26%	50	6.21E-06	12	5.89%	1152	1.42E-04	20	4.28%	837	1.04E-04
5	0.49%	97	1.19E-05	13	6.15%	1203	1.49E-04	21	3.25%	636	7.87E-05
6	0.90%	177	2.18E-05	14	6.04%	1181	1.46E-04	22	3.30%	645	7.98E-05
7	3.79%	741	9.16E-05	15	7.01%	1372	1.70E-04	23	2.46%	482	5.96E-05
8	7.76%	1518	1.88E-04	16	7.14%	1397	1.73E-04	24	1.86%	365	4.51E-05
								Total		19,560	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEXH	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	17,994
EBBWS_TEXH	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	19,560
									Total	37,554

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	206	4.01E-04	9	7.11%	1280	2.49E-03	17	7.39%	1330	2.59E-03
2	0.42%	76	1.47E-04	10	4.39%	790	1.53E-03	18	8.18%	1472	2.86E-03
3	0.40%	73	1.41E-04	11	4.66%	839	1.63E-03	19	5.70%	1026	1.99E-03
4	0.26%	46	8.98E-05	12	5.89%	1059	2.06E-03	20	4.28%	770	1.50E-03
5	0.49%	89	1.73E-04	13	6.15%	1107	2.15E-03	21	3.25%	585	1.14E-03
6	0.90%	162	3.16E-04	14	6.04%	1086	2.11E-03	22	3.30%	594	1.15E-03
7	3.79%	682	1.32E-03	15	7.01%	1262	2.45E-03	23	2.46%	443	8.61E-04
8	7.76%	1397	2.71E-03	16	7.14%	1285	2.50E-03	24	1.86%	336	6.52E-04
								Total		17,994	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	224	4.41E-04	9	7.11%	1391	2.74E-03	17	7.39%	1446	2.84E-03
2	0.42%	82	1.61E-04	10	4.39%	858	1.69E-03	18	8.18%	1601	3.15E-03
3	0.40%	79	1.55E-04	11	4.66%	912	1.79E-03	19	5.70%	1115	2.19E-03
4	0.26%	50	9.88E-05	12	5.89%	1152	2.27E-03	20	4.28%	837	1.65E-03
5	0.49%	97	1.90E-04	13	6.15%	1203	2.37E-03	21	3.25%	636	1.25E-03
6	0.90%	177	3.47E-04	14	6.04%	1181	2.32E-03	22	3.30%	645	1.27E-03
7	3.79%	741	1.46E-03	15	7.01%	1372	2.70E-03	23	2.46%	482	9.47E-04
8	7.76%	1518	2.99E-03	16	7.14%	1397	2.75E-03	24	1.86%	365	7.17E-04
								Total		19,560	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEVAP	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	17,994
EBBWS_TEVAP	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	19,560
									Total	37,554

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	206	5.64E-04	9	7.11%	1280	3.50E-03	17	7.39%	1330	3.63E-03
2	0.42%	76	2.06E-04	10	4.39%	790	2.16E-03	18	8.18%	1472	4.02E-03
3	0.40%	73	1.98E-04	11	4.66%	839	2.29E-03	19	5.70%	1026	2.80E-03
4	0.26%	46	1.26E-04	12	5.89%	1059	2.89E-03	20	4.28%	770	2.10E-03
5	0.49%	89	2.43E-04	13	6.15%	1107	3.02E-03	21	3.25%	585	1.60E-03
6	0.90%	162	4.44E-04	14	6.04%	1086	2.97E-03	22	3.30%	594	1.62E-03
7	3.79%	682	1.86E-03	15	7.01%	1262	3.45E-03	23	2.46%	443	1.21E-03
8	7.76%	1397	3.82E-03	16	7.14%	1285	3.51E-03	24	1.86%	336	9.17E-04
								Total		17,994	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	224	6.20E-04	9	7.11%	1391	3.85E-03	17	7.39%	1446	4.00E-03
2	0.42%	82	2.27E-04	10	4.39%	858	2.37E-03	18	8.18%	1601	4.43E-03
3	0.40%	79	2.18E-04	11	4.66%	912	2.52E-03	19	5.70%	1115	3.08E-03
4	0.26%	50	1.39E-04	12	5.89%	1152	3.18E-03	20	4.28%	837	2.31E-03
5	0.49%	97	2.67E-04	13	6.15%	1203	3.33E-03	21	3.25%	636	1.76E-03
6	0.90%	177	4.88E-04	14	6.04%	1181	3.27E-03	22	3.30%	645	1.78E-03
7	3.79%	741	2.05E-03	15	7.01%	1372	3.79E-03	23	2.46%	482	1.33E-03
8	7.76%	1518	4.20E-03	16	7.14%	1397	3.86E-03	24	1.86%	365	1.01E-03
								Total		19,560	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_FUG	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	17,994
EBBWS_FUG	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	19,560
									Total	37,554

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	206	7.80E-04	9	7.11%	1280	4.84E-03	17	7.39%	1330	5.03E-03
2	0.42%	76	2.85E-04	10	4.39%	790	2.99E-03	18	8.18%	1472	5.57E-03
3	0.40%	73	2.74E-04	11	4.66%	839	3.17E-03	19	5.70%	1026	3.88E-03
4	0.26%	46	1.75E-04	12	5.89%	1059	4.01E-03	20	4.28%	770	2.91E-03
5	0.49%	89	3.36E-04	13	6.15%	1107	4.19E-03	21	3.25%	585	2.21E-03
6	0.90%	162	6.14E-04	14	6.04%	1086	4.11E-03	22	3.30%	594	2.24E-03
7	3.79%	682	2.58E-03	15	7.01%	1262	4.77E-03	23	2.46%	443	1.67E-03
8	7.76%	1397	5.28E-03	16	7.14%	1285	4.86E-03	24	1.86%	336	1.27E-03
								Total		17,994	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	224	8.58E-04	9	7.11%	1391	5.32E-03	17	7.39%	1446	5.53E-03
2	0.42%	82	3.14E-04	10	4.39%	858	3.28E-03	18	8.18%	1601	6.12E-03
3	0.40%	79	3.02E-04	11	4.66%	912	3.49E-03	19	5.70%	1115	4.27E-03
4	0.26%	50	1.92E-04	12	5.89%	1152	4.41E-03	20	4.28%	837	3.20E-03
5	0.49%	97	3.70E-04	13	6.15%	1203	4.60E-03	21	3.25%	636	2.43E-03
6	0.90%	177	6.76E-04	14	6.04%	1181	4.52E-03	22	3.30%	645	2.47E-03
7	3.79%	741	2.83E-03	15	7.01%	1372	5.25E-03	23	2.46%	482	1.84E-03
8	7.76%	1518	5.81E-03	16	7.14%	1397	5.35E-03	24	1.86%	365	1.40E-03
								Total		19,560	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

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
WBBES_DPM	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	43.7	3.4	40	21,540
WBBWS_DPM	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	43.7	3.4	40	23,646
									Total	45,186

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	856	4.45E-05	9	6.45%	1388	7.22E-05	17	5.61%	1208	6.28E-05
2	2.63%	567	2.95E-05	10	7.45%	1606	8.34E-05	18	3.20%	689	3.58E-05
3	2.86%	615	3.20E-05	11	6.39%	1376	7.15E-05	19	2.19%	472	2.45E-05
4	3.25%	700	3.64E-05	12	7.01%	1509	7.84E-05	20	0.85%	182	9.48E-06
5	2.18%	470	2.44E-05	13	6.28%	1352	7.03E-05	21	3.09%	665	3.46E-05
6	3.30%	712	3.70E-05	14	6.17%	1328	6.90E-05	22	4.26%	918	4.77E-05
7	6.05%	1304	6.78E-05	15	5.10%	1099	5.71E-05	23	2.58%	555	2.88E-05
8	4.43%	954	4.96E-05	16	3.87%	834	4.33E-05	24	0.84%	181	9.40E-06
								Total		21,540	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	940	4.97E-05	9	6.45%	1524	8.06E-05	17	5.61%	1326	7.01E-05
2	2.63%	622	3.29E-05	10	7.45%	1763	9.33E-05	18	3.20%	756	4.00E-05
3	2.86%	675	3.57E-05	11	6.39%	1511	7.99E-05	19	2.19%	518	2.74E-05
4	3.25%	768	4.06E-05	12	7.01%	1657	8.77E-05	20	0.85%	200	1.06E-05
5	2.18%	516	2.73E-05	13	6.28%	1484	7.85E-05	21	3.09%	730	3.86E-05
6	3.30%	781	4.13E-05	14	6.17%	1458	7.71E-05	22	4.26%	1008	5.33E-05
7	6.05%	1432	7.57E-05	15	5.10%	1206	6.38E-05	23	2.58%	609	3.22E-05
8	4.43%	1048	5.54E-05	16	3.87%	915	4.84E-05	24	0.84%	199	1.05E-05
								Total		23,646	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_PM25	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	21,540
WBBWS_PM25	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	23,646
									Total	45,186

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	247	3.00E-05	9	7.11%	1532	1.86E-04	17	7.39%	1592	1.94E-04
2	0.42%	90	1.10E-05	10	4.39%	945	1.15E-04	18	8.18%	1763	2.14E-04
3	0.40%	87	1.06E-05	11	4.66%	1004	1.22E-04	19	5.70%	1228	1.49E-04
4	0.26%	55	6.73E-06	12	5.89%	1268	1.54E-04	20	4.28%	921	1.12E-04
5	0.49%	106	1.29E-05	13	6.15%	1325	1.61E-04	21	3.25%	701	8.52E-05
6	0.90%	194	2.36E-05	14	6.04%	1301	1.58E-04	22	3.30%	711	8.64E-05
7	3.79%	816	9.92E-05	15	7.01%	1511	1.84E-04	23	2.46%	530	6.45E-05
8	7.76%	1672	2.03E-04	16	7.14%	1539	1.87E-04	24	1.86%	402	4.88E-05
								Total		21,540	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	271	3.36E-05	9	7.11%	1682	2.08E-04	17	7.39%	1748	2.16E-04
2	0.42%	99	1.23E-05	10	4.39%	1038	1.28E-04	18	8.18%	1935	2.39E-04
3	0.40%	95	1.18E-05	11	4.66%	1102	1.36E-04	19	5.70%	1348	1.67E-04
4	0.26%	61	7.52E-06	12	5.89%	1392	1.72E-04	20	4.28%	1012	1.25E-04
5	0.49%	117	1.45E-05	13	6.15%	1455	1.80E-04	21	3.25%	769	9.52E-05
6	0.90%	213	2.64E-05	14	6.04%	1428	1.77E-04	22	3.30%	780	9.66E-05
7	3.79%	896	1.11E-04	15	7.01%	1658	2.05E-04	23	2.46%	582	7.20E-05
8	7.76%	1836	2.27E-04	16	7.14%	1689	2.09E-04	24	1.86%	441	5.46E-05
								Total		23,646	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

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
WBBES_TEXH	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	21,540
WBBWS_TEXH	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	23,646
									Total	45,186

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	247	4.78E-04	9	7.11%	1532	2.96E-03	17	7.39%	1592	3.08E-03
2	0.42%	90	1.75E-04	10	4.39%	945	1.83E-03	18	8.18%	1763	3.41E-03
3	0.40%	87	1.68E-04	11	4.66%	1004	1.94E-03	19	5.70%	1228	2.37E-03
4	0.26%	55	1.07E-04	12	5.89%	1268	2.45E-03	20	4.28%	921	1.78E-03
5	0.49%	106	2.06E-04	13	6.15%	1325	2.56E-03	21	3.25%	701	1.35E-03
6	0.90%	194	3.76E-04	14	6.04%	1301	2.51E-03	22	3.30%	711	1.37E-03
7	3.79%	816	1.58E-03	15	7.01%	1511	2.92E-03	23	2.46%	530	1.03E-03
8	7.76%	1672	3.23E-03	16	7.14%	1539	2.97E-03	24	1.86%	402	7.77E-04
								Total		21,540	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	271	5.34E-04	9	7.11%	1682	3.31E-03	17	7.39%	1748	3.44E-03
2	0.42%	99	1.95E-04	10	4.39%	1038	2.04E-03	18	8.18%	1935	3.81E-03
3	0.40%	95	1.88E-04	11	4.66%	1102	2.17E-03	19	5.70%	1348	2.65E-03
4	0.26%	61	1.20E-04	12	5.89%	1392	2.74E-03	20	4.28%	1012	1.99E-03
5	0.49%	117	2.30E-04	13	6.15%	1455	2.86E-03	21	3.25%	769	1.51E-03
6	0.90%	213	4.20E-04	14	6.04%	1428	2.81E-03	22	3.30%	780	1.54E-03
7	3.79%	896	1.76E-03	15	7.01%	1658	3.26E-03	23	2.46%	582	1.15E-03
8	7.76%	1836	3.61E-03	16	7.14%	1689	3.32E-03	24	1.86%	441	8.68E-04
								Total		23,646	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

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
WBBES_TEVAP	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	21,540
WBBWS_TEVAP	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	23,646
									Total	45,186

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	247	6.71E-04	9	7.11%	1532	4.16E-03	17	7.39%	1592	4.33E-03
2	0.42%	90	2.46E-04	10	4.39%	945	2.57E-03	18	8.18%	1763	4.79E-03
3	0.40%	87	2.36E-04	11	4.66%	1004	2.73E-03	19	5.70%	1228	3.34E-03
4	0.26%	55	1.50E-04	12	5.89%	1268	3.45E-03	20	4.28%	921	2.50E-03
5	0.49%	106	2.89E-04	13	6.15%	1325	3.60E-03	21	3.25%	701	1.90E-03
6	0.90%	194	5.28E-04	14	6.04%	1301	3.53E-03	22	3.30%	711	1.93E-03
7	3.79%	816	2.22E-03	15	7.01%	1511	4.11E-03	23	2.46%	530	1.44E-03
8	7.76%	1672	4.54E-03	16	7.14%	1539	4.18E-03	24	1.86%	402	1.09E-03
								Total		21,540	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	271	7.50E-04	9	7.11%	1682	4.65E-03	17	7.39%	1748	4.84E-03
2	0.42%	99	2.75E-04	10	4.39%	1038	2.87E-03	18	8.18%	1935	5.35E-03
3	0.40%	95	2.64E-04	11	4.66%	1102	3.05E-03	19	5.70%	1348	3.73E-03
4	0.26%	61	1.68E-04	12	5.89%	1392	3.85E-03	20	4.28%	1012	2.80E-03
5	0.49%	117	3.23E-04	13	6.15%	1455	4.02E-03	21	3.25%	769	2.13E-03
6	0.90%	213	5.90E-04	14	6.04%	1428	3.95E-03	22	3.30%	780	2.16E-03
7	3.79%	896	2.48E-03	15	7.01%	1658	4.59E-03	23	2.46%	582	1.61E-03
8	7.76%	1836	5.08E-03	16	7.14%	1689	4.67E-03	24	1.86%	441	1.22E-03
								Total		23,646	

San Jose Flea Market - Proposed Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_FUG	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	21,540
WBBWS_FUG	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	23,646
									Total	45,186

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	247	9.29E-04	9	7.11%	1532	5.76E-03	17	7.39%	1592	5.99E-03
2	0.42%	90	3.40E-04	10	4.39%	945	3.55E-03	18	8.18%	1763	6.63E-03
3	0.40%	87	3.27E-04	11	4.66%	1004	3.78E-03	19	5.70%	1228	4.62E-03
4	0.26%	55	2.08E-04	12	5.89%	1268	4.77E-03	20	4.28%	921	3.47E-03
5	0.49%	106	4.00E-04	13	6.15%	1325	4.98E-03	21	3.25%	701	2.63E-03
6	0.90%	194	7.31E-04	14	6.04%	1301	4.89E-03	22	3.30%	711	2.67E-03
7	3.79%	816	3.07E-03	15	7.01%	1511	5.68E-03	23	2.46%	530	1.99E-03
8	7.76%	1672	6.29E-03	16	7.14%	1539	5.79E-03	24	1.86%	402	1.51E-03
								Total		21,540	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	271	1.04E-03	9	7.11%	1682	6.44E-03	17	7.39%	1748	6.69E-03
2	0.42%	99	3.80E-04	10	4.39%	1038	3.97E-03	18	8.18%	1935	7.41E-03
3	0.40%	95	3.65E-04	11	4.66%	1102	4.22E-03	19	5.70%	1348	5.16E-03
4	0.26%	61	2.33E-04	12	5.89%	1392	5.33E-03	20	4.28%	1012	3.87E-03
5	0.49%	117	4.47E-04	13	6.15%	1455	5.57E-03	21	3.25%	769	2.94E-03
6	0.90%	213	8.17E-04	14	6.04%	1428	5.47E-03	22	3.30%	780	2.99E-03
7	3.79%	896	3.43E-03	15	7.01%	1658	6.35E-03	23	2.46%	582	2.23E-03
8	7.76%	1836	7.03E-03	16	7.14%	1689	6.47E-03	24	1.86%	441	1.69E-03
								Total		23,646	

CUMULATIVE WITH CITY'S PROJECT ROAD EMISSIONS

Mabury Road

San Jose Flea Market - City's Project Cumulative -Roadway Emissions
Eastbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_DPM	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	43.7	3.4	35	13,752
EBMWS_DPM	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	43.7	3.4	35	18,408
									Total	32,160

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - EBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	547	1.77E-05	9	6.45%	886	2.87E-05	17	5.61%	771	2.50E-05
2	2.63%	362	1.17E-05	10	7.45%	1025	3.32E-05	18	3.20%	440	1.43E-05
3	2.86%	393	1.27E-05	11	6.39%	879	2.85E-05	19	2.19%	301	9.77E-06
4	3.25%	447	1.45E-05	12	7.01%	963	3.12E-05	20	0.85%	116	3.78E-06
5	2.18%	300	9.74E-06	13	6.28%	863	2.80E-05	21	3.09%	424	1.38E-05
6	3.30%	454	1.47E-05	14	6.17%	848	2.75E-05	22	4.26%	586	1.90E-05
7	6.05%	833	2.70E-05	15	5.10%	702	2.28E-05	23	2.58%	354	1.15E-05
8	4.43%	609	1.98E-05	16	3.87%	532	1.73E-05	24	0.84%	115	3.75E-06
								Total		13,752	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	732	1.98E-05	9	6.45%	1187	3.20E-05	17	5.61%	1032	2.79E-05
2	2.63%	484	1.31E-05	10	7.45%	1372	3.70E-05	18	3.20%	589	1.59E-05
3	2.86%	526	1.42E-05	11	6.39%	1176	3.18E-05	19	2.19%	403	1.09E-05
4	3.25%	598	1.61E-05	12	7.01%	1290	3.48E-05	20	0.85%	156	4.21E-06
5	2.18%	402	1.09E-05	13	6.28%	1156	3.12E-05	21	3.09%	568	1.53E-05
6	3.30%	608	1.64E-05	14	6.17%	1135	3.06E-05	22	4.26%	785	2.12E-05
7	6.05%	1114	3.01E-05	15	5.10%	939	2.54E-05	23	2.58%	474	1.28E-05
8	4.43%	816	2.20E-05	16	3.87%	712	1.92E-05	24	0.84%	155	4.17E-06
								Total		18,408	

San Jose Flea Market - City's Project Cumulative -Roadway Emissions
Eastbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_PM25	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	13,752
EBMWS_PM25	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	32,160

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	158	1.39E-05	9	7.11%	978	8.64E-05	17	7.39%	1017	8.97E-05
2	0.42%	58	5.09E-06	10	4.39%	603	5.33E-05	18	8.18%	1125	9.93E-05
3	0.40%	55	4.90E-06	11	4.66%	641	5.66E-05	19	5.70%	784	6.92E-05
4	0.26%	35	3.12E-06	12	5.89%	810	7.15E-05	20	4.28%	588	5.19E-05
5	0.49%	68	5.99E-06	13	6.15%	846	7.47E-05	21	3.25%	447	3.95E-05
6	0.90%	124	1.10E-05	14	6.04%	830	7.33E-05	22	3.30%	454	4.01E-05
7	3.79%	521	4.60E-05	15	7.01%	964	8.51E-05	23	2.46%	339	2.99E-05
8	7.76%	1068	9.43E-05	16	7.14%	982	8.67E-05	24	1.86%	256	2.26E-05
								Total		13,752	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	1.55E-05	9	7.11%	1310	9.62E-05	17	7.39%	1361	1.00E-04
2	0.42%	77	5.68E-06	10	4.39%	808	5.94E-05	18	8.18%	1506	1.11E-04
3	0.40%	74	5.46E-06	11	4.66%	858	6.31E-05	19	5.70%	1049	7.71E-05
4	0.26%	47	3.47E-06	12	5.89%	1084	7.96E-05	20	4.28%	787	5.79E-05
5	0.49%	91	6.68E-06	13	6.15%	1132	8.32E-05	21	3.25%	599	4.40E-05
6	0.90%	166	1.22E-05	14	6.04%	1111	8.17E-05	22	3.30%	607	4.46E-05
7	3.79%	697	5.12E-05	15	7.01%	1291	9.49E-05	23	2.46%	453	3.33E-05
8	7.76%	1429	1.05E-04	16	7.14%	1315	9.66E-05	24	1.86%	343	2.52E-05
								Total		18,408	

San Jose Flea Market - City's Project Cumulative -Roadway Emissions
Eastbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEXH	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	13,752
EBMWS_TEXH	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	32,160

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	158	2.40E-04	9	7.11%	978	1.49E-03	17	7.39%	1017	1.55E-03
2	0.42%	58	8.78E-05	10	4.39%	603	9.18E-04	18	8.18%	1125	1.71E-03
3	0.40%	55	8.44E-05	11	4.66%	641	9.75E-04	19	5.70%	784	1.19E-03
4	0.26%	35	5.37E-05	12	5.89%	810	1.23E-03	20	4.28%	588	8.95E-04
5	0.49%	68	1.03E-04	13	6.15%	846	1.29E-03	21	3.25%	447	6.80E-04
6	0.90%	124	1.89E-04	14	6.04%	830	1.26E-03	22	3.30%	454	6.90E-04
7	3.79%	521	7.92E-04	15	7.01%	964	1.47E-03	23	2.46%	339	5.15E-04
8	7.76%	1068	1.62E-03	16	7.14%	982	1.49E-03	24	1.86%	256	3.90E-04
								Total		13,752	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	2.67E-04	9	7.11%	1310	1.66E-03	17	7.39%	1361	1.72E-03
2	0.42%	77	9.78E-05	10	4.39%	808	1.02E-03	18	8.18%	1506	1.91E-03
3	0.40%	74	9.40E-05	11	4.66%	858	1.09E-03	19	5.70%	1049	1.33E-03
4	0.26%	47	5.99E-05	12	5.89%	1084	1.37E-03	20	4.28%	787	9.97E-04
5	0.49%	91	1.15E-04	13	6.15%	1132	1.43E-03	21	3.25%	599	7.58E-04
6	0.90%	166	2.10E-04	14	6.04%	1111	1.41E-03	22	3.30%	607	7.69E-04
7	3.79%	697	8.83E-04	15	7.01%	1291	1.63E-03	23	2.46%	453	5.74E-04
8	7.76%	1429	1.81E-03	16	7.14%	1315	1.66E-03	24	1.86%	343	4.35E-04
								Total		18,408	

San Jose Flea Market - City's Project Cumulative -Roadway Emissions
Eastbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_TEVAP	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	13,752
EBMWS_TEVAP	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	32,160

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	158	3.39E-04	9	7.11%	978	2.10E-03	17	7.39%	1017	2.19E-03
2	0.42%	58	1.24E-04	10	4.39%	603	1.30E-03	18	8.18%	1125	2.42E-03
3	0.40%	55	1.19E-04	11	4.66%	641	1.38E-03	19	5.70%	784	1.69E-03
4	0.26%	35	7.60E-05	12	5.89%	810	1.74E-03	20	4.28%	588	1.27E-03
5	0.49%	68	1.46E-04	13	6.15%	846	1.82E-03	21	3.25%	447	9.62E-04
6	0.90%	124	2.67E-04	14	6.04%	830	1.79E-03	22	3.30%	454	9.76E-04
7	3.79%	521	1.12E-03	15	7.01%	964	2.07E-03	23	2.46%	339	7.28E-04
8	7.76%	1068	2.30E-03	16	7.14%	982	2.11E-03	24	1.86%	256	5.52E-04
								Total		13,752	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	3.78E-04	9	7.11%	1310	2.35E-03	17	7.39%	1361	2.44E-03
2	0.42%	77	1.38E-04	10	4.39%	808	1.45E-03	18	8.18%	1506	2.70E-03
3	0.40%	74	1.33E-04	11	4.66%	858	1.54E-03	19	5.70%	1049	1.88E-03
4	0.26%	47	8.47E-05	12	5.89%	1084	1.94E-03	20	4.28%	787	1.41E-03
5	0.49%	91	1.63E-04	13	6.15%	1132	2.03E-03	21	3.25%	599	1.07E-03
6	0.90%	166	2.98E-04	14	6.04%	1111	1.99E-03	22	3.30%	607	1.09E-03
7	3.79%	697	1.25E-03	15	7.01%	1291	2.31E-03	23	2.46%	453	8.12E-04
8	7.76%	1429	2.56E-03	16	7.14%	1315	2.35E-03	24	1.86%	343	6.15E-04
								Total		18,408	

San Jose Flea Market - City's Project Cumulative -Roadway Emissions
Eastbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBMES_FUG	EB Marbury East of Sierra Rd	E	2	413.8	0.26	13.3	44	1.3	35	13,752
EBMWS_FUG	EB Mabury West of Sierra Rd	E	2	344.5	0.21	13.3	44	1.3	35	18,408
									Total	32,160

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	158	4.11E-04	9	7.11%	978	2.55E-03	17	7.39%	1017	2.65E-03
2	0.42%	58	1.50E-04	10	4.39%	603	1.57E-03	18	8.18%	1125	2.93E-03
3	0.40%	55	1.44E-04	11	4.66%	641	1.67E-03	19	5.70%	784	2.04E-03
4	0.26%	35	9.20E-05	12	5.89%	810	2.11E-03	20	4.28%	588	1.53E-03
5	0.49%	68	1.77E-04	13	6.15%	846	2.20E-03	21	3.25%	447	1.17E-03
6	0.90%	124	3.23E-04	14	6.04%	830	2.16E-03	22	3.30%	454	1.18E-03
7	3.79%	521	1.36E-03	15	7.01%	964	2.51E-03	23	2.46%	339	8.82E-04
8	7.76%	1068	2.78E-03	16	7.14%	982	2.56E-03	24	1.86%	256	6.68E-04
								Total		13,752	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	211	4.58E-04	9	7.11%	1310	2.84E-03	17	7.39%	1361	2.95E-03
2	0.42%	77	1.68E-04	10	4.39%	808	1.75E-03	18	8.18%	1506	3.27E-03
3	0.40%	74	1.61E-04	11	4.66%	858	1.86E-03	19	5.70%	1049	2.28E-03
4	0.26%	47	1.03E-04	12	5.89%	1084	2.35E-03	20	4.28%	787	1.71E-03
5	0.49%	91	1.97E-04	13	6.15%	1132	2.46E-03	21	3.25%	599	1.30E-03
6	0.90%	166	3.60E-04	14	6.04%	1111	2.41E-03	22	3.30%	607	1.32E-03
7	3.79%	697	1.51E-03	15	7.01%	1291	2.80E-03	23	2.46%	453	9.83E-04
8	7.76%	1429	3.10E-03	16	7.14%	1315	2.85E-03	24	1.86%	343	7.44E-04
								Total		18,408	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_DPM	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	43.7	3.4	35	18,636
WBMWS_DPM	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	43.7	3.4	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00045			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBMES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	741	2.39E-05	9	6.45%	1201	3.88E-05	17	5.61%	1045	3.38E-05
2	2.63%	490	1.58E-05	10	7.45%	1389	4.49E-05	18	3.20%	596	1.93E-05
3	2.86%	532	1.72E-05	11	6.39%	1191	3.85E-05	19	2.19%	408	1.32E-05
4	3.25%	605	1.96E-05	12	7.01%	1306	4.22E-05	20	0.85%	158	5.10E-06
5	2.18%	407	1.31E-05	13	6.28%	1170	3.78E-05	21	3.09%	575	1.86E-05
6	3.30%	616	1.99E-05	14	6.17%	1149	3.71E-05	22	4.26%	794	2.57E-05
7	6.05%	1128	3.65E-05	15	5.10%	951	3.07E-05	23	2.58%	480	1.55E-05
8	4.43%	826	2.67E-05	16	3.87%	721	2.33E-05	24	0.84%	157	5.06E-06
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBMWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	918	2.50E-05	9	6.45%	1488	4.05E-05	17	5.61%	1294	3.53E-05
2	2.63%	607	1.66E-05	10	7.45%	1720	4.69E-05	18	3.20%	738	2.01E-05
3	2.86%	659	1.80E-05	11	6.39%	1475	4.02E-05	19	2.19%	506	1.38E-05
4	3.25%	750	2.04E-05	12	7.01%	1617	4.41E-05	20	0.85%	195	5.33E-06
5	2.18%	504	1.37E-05	13	6.28%	1449	3.95E-05	21	3.09%	712	1.94E-05
6	3.30%	763	2.08E-05	14	6.17%	1423	3.88E-05	22	4.26%	984	2.68E-05
7	6.05%	1397	3.81E-05	15	5.10%	1178	3.21E-05	23	2.58%	594	1.62E-05
8	4.43%	1023	2.79E-05	16	3.87%	893	2.43E-05	24	0.84%	194	5.28E-06
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_PM25	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_PM25	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001236			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBMES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	1.88E-05	9	7.11%	1326	1.17E-04	17	7.39%	1378	1.21E-04
2	0.42%	78	6.88E-06	10	4.39%	818	7.19E-05	18	8.18%	1525	1.34E-04
3	0.40%	75	6.61E-06	11	4.66%	869	7.64E-05	19	5.70%	1062	9.34E-05
4	0.26%	48	4.21E-06	12	5.89%	1097	9.65E-05	20	4.28%	797	7.01E-05
5	0.49%	92	8.09E-06	13	6.15%	1146	1.01E-04	21	3.25%	606	5.33E-05
6	0.90%	168	1.48E-05	14	6.04%	1125	9.90E-05	22	3.30%	615	5.41E-05
7	3.79%	706	6.21E-05	15	7.01%	1307	1.15E-04	23	2.46%	459	4.04E-05
8	7.76%	1447	1.27E-04	16	7.14%	1331	1.17E-04	24	1.86%	348	3.06E-05
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBMWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	1.96E-05	9	7.11%	1642	1.22E-04	17	7.39%	1706	1.27E-04
2	0.42%	97	7.19E-06	10	4.39%	1013	7.51E-05	18	8.18%	1889	1.40E-04
3	0.40%	93	6.91E-06	11	4.66%	1076	7.98E-05	19	5.70%	1316	9.76E-05
4	0.26%	59	4.40E-06	12	5.89%	1359	1.01E-04	20	4.28%	987	7.33E-05
5	0.49%	114	8.46E-06	13	6.15%	1420	1.05E-04	21	3.25%	751	5.57E-05
6	0.90%	208	1.55E-05	14	6.04%	1394	1.03E-04	22	3.30%	762	5.65E-05
7	3.79%	874	6.49E-05	15	7.01%	1619	1.20E-04	23	2.46%	568	4.22E-05
8	7.76%	1792	1.33E-04	16	7.14%	1649	1.22E-04	24	1.86%	430	3.19E-05
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEXH	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_TEXH	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.022780			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001489			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02129			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBMES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	3.24E-04	9	7.11%	1326	2.01E-03	17	7.39%	1378	2.09E-03
2	0.42%	78	1.18E-04	10	4.39%	818	1.24E-03	18	8.18%	1525	2.31E-03
3	0.40%	75	1.14E-04	11	4.66%	869	1.32E-03	19	5.70%	1062	1.61E-03
4	0.26%	48	7.25E-05	12	5.89%	1097	1.66E-03	20	4.28%	797	1.21E-03
5	0.49%	92	1.39E-04	13	6.15%	1146	1.74E-03	21	3.25%	606	9.18E-04
6	0.90%	168	2.55E-04	14	6.04%	1125	1.70E-03	22	3.30%	615	9.32E-04
7	3.79%	706	1.07E-03	15	7.01%	1307	1.98E-03	23	2.46%	459	6.95E-04
8	7.76%	1447	2.19E-03	16	7.14%	1331	2.02E-03	24	1.86%	348	5.27E-04
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBMWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	3.38E-04	9	7.11%	1642	2.10E-03	17	7.39%	1706	2.18E-03
2	0.42%	97	1.24E-04	10	4.39%	1013	1.29E-03	18	8.18%	1889	2.41E-03
3	0.40%	93	1.19E-04	11	4.66%	1076	1.37E-03	19	5.70%	1316	1.68E-03
4	0.26%	59	7.58E-05	12	5.89%	1359	1.74E-03	20	4.28%	987	1.26E-03
5	0.49%	114	1.46E-04	13	6.15%	1420	1.81E-03	21	3.25%	751	9.59E-04
6	0.90%	208	2.66E-04	14	6.04%	1394	1.78E-03	22	3.30%	762	9.73E-04
7	3.79%	874	1.12E-03	15	7.01%	1619	2.07E-03	23	2.46%	568	7.26E-04
8	7.76%	1792	2.29E-03	16	7.14%	1649	2.11E-03	24	1.86%	430	5.50E-04
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_TEVAP	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_TEVAP	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.03012			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBMES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	4.58E-04	9	7.11%	1326	2.84E-03	17	7.39%	1378	2.95E-03
2	0.42%	78	1.68E-04	10	4.39%	818	1.75E-03	18	8.18%	1525	3.27E-03
3	0.40%	75	1.61E-04	11	4.66%	869	1.86E-03	19	5.70%	1062	2.28E-03
4	0.26%	48	1.03E-04	12	5.89%	1097	2.35E-03	20	4.28%	797	1.71E-03
5	0.49%	92	1.97E-04	13	6.15%	1146	2.46E-03	21	3.25%	606	1.30E-03
6	0.90%	168	3.61E-04	14	6.04%	1125	2.41E-03	22	3.30%	615	1.32E-03
7	3.79%	706	1.51E-03	15	7.01%	1307	2.80E-03	23	2.46%	459	9.83E-04
8	7.76%	1447	3.10E-03	16	7.14%	1331	2.85E-03	24	1.86%	348	7.45E-04
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBMWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	4.79E-04	9	7.11%	1642	2.97E-03	17	7.39%	1706	3.08E-03
2	0.42%	97	1.75E-04	10	4.39%	1013	1.83E-03	18	8.18%	1889	3.41E-03
3	0.40%	93	1.68E-04	11	4.66%	1076	1.95E-03	19	5.70%	1316	2.38E-03
4	0.26%	59	1.07E-04	12	5.89%	1359	2.46E-03	20	4.28%	987	1.79E-03
5	0.49%	114	2.06E-04	13	6.15%	1420	2.57E-03	21	3.25%	751	1.36E-03
6	0.90%	208	3.77E-04	14	6.04%	1394	2.52E-03	22	3.30%	762	1.38E-03
7	3.79%	874	1.58E-03	15	7.01%	1619	2.93E-03	23	2.46%	568	1.03E-03
8	7.76%	1792	3.24E-03	16	7.14%	1649	2.98E-03	24	1.86%	430	7.78E-04
								Total		23,082	

San Jose Flea Market - Proposed Project Cumulative Traffic - Roadway Emissions
Westbound Mabury Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBMES_FUG	WB Marbury East of Sierra Rd	W	2	412.3	0.26	13.3	44	1.3	35	18,636
WBMWS_FUG	WB Mabury West of Sierra Rd	W	2	347.7	0.22	13.3	44	1.3	35	23,082
									Total	41,718

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBMES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	214	5.55E-04	9	7.11%	1326	3.44E-03	17	7.39%	1378	3.58E-03
2	0.42%	78	2.03E-04	10	4.39%	818	2.12E-03	18	8.18%	1525	3.96E-03
3	0.40%	75	1.95E-04	11	4.66%	869	2.25E-03	19	5.70%	1062	2.76E-03
4	0.26%	48	1.24E-04	12	5.89%	1097	2.85E-03	20	4.28%	797	2.07E-03
5	0.49%	92	2.39E-04	13	6.15%	1146	2.98E-03	21	3.25%	606	1.57E-03
6	0.90%	168	4.37E-04	14	6.04%	1125	2.92E-03	22	3.30%	615	1.60E-03
7	3.79%	706	1.83E-03	15	7.01%	1307	3.39E-03	23	2.46%	459	1.19E-03
8	7.76%	1447	3.76E-03	16	7.14%	1331	3.46E-03	24	1.86%	348	9.02E-04
								Total		18,636	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBMWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	265	5.79E-04	9	7.11%	1642	3.59E-03	17	7.39%	1706	3.74E-03
2	0.42%	97	2.12E-04	10	4.39%	1013	2.22E-03	18	8.18%	1889	4.13E-03
3	0.40%	93	2.04E-04	11	4.66%	1076	2.36E-03	19	5.70%	1316	2.88E-03
4	0.26%	59	1.30E-04	12	5.89%	1359	2.97E-03	20	4.28%	987	2.16E-03
5	0.49%	114	2.50E-04	13	6.15%	1420	3.11E-03	21	3.25%	751	1.64E-03
6	0.90%	208	4.56E-04	14	6.04%	1394	3.05E-03	22	3.30%	762	1.67E-03
7	3.79%	874	1.91E-03	15	7.01%	1619	3.54E-03	23	2.46%	568	1.24E-03
8	7.76%	1792	3.92E-03	16	7.14%	1649	3.61E-03	24	1.86%	430	9.42E-04
								Total		23,082	

Berryessa Road

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_DPM	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	43.7	3.4	40	15,810
EBBWS_DPM	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	43.7	3.4	40	17,442
									Total	33,252

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

2030 Hourly Traffic Volumes and DPM Emissions - EBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	629	3.28E-05	9	6.45%	1019	5.32E-05	17	5.61%	886	4.63E-05
2	2.63%	416	2.17E-05	10	7.45%	1178	6.16E-05	18	3.20%	506	2.64E-05
3	2.86%	451	2.36E-05	11	6.39%	1010	5.28E-05	19	2.19%	346	1.81E-05
4	3.25%	513	2.68E-05	12	7.01%	1108	5.79E-05	20	0.85%	134	7.00E-06
5	2.18%	345	1.80E-05	13	6.28%	993	5.19E-05	21	3.09%	488	2.55E-05
6	3.30%	522	2.73E-05	14	6.17%	975	5.09E-05	22	4.26%	674	3.52E-05
7	6.05%	957	5.00E-05	15	5.10%	807	4.21E-05	23	2.58%	407	2.13E-05
8	4.43%	700	3.66E-05	16	3.87%	612	3.20E-05	24	0.84%	133	6.94E-06
								Total		15,810	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - EBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	693	3.67E-05	9	6.45%	1124	5.95E-05	17	5.61%	978	5.17E-05
2	2.63%	459	2.43E-05	10	7.45%	1300	6.87E-05	18	3.20%	558	2.95E-05
3	2.86%	498	2.63E-05	11	6.39%	1115	5.89E-05	19	2.19%	382	2.02E-05
4	3.25%	566	3.00E-05	12	7.01%	1222	6.46E-05	20	0.85%	148	7.81E-06
5	2.18%	381	2.01E-05	13	6.28%	1095	5.79E-05	21	3.09%	538	2.85E-05
6	3.30%	576	3.05E-05	14	6.17%	1075	5.69E-05	22	4.26%	743	3.93E-05
7	6.05%	1056	5.58E-05	15	5.10%	890	4.71E-05	23	2.58%	449	2.38E-05
8	4.43%	773	4.09E-05	16	3.87%	675	3.57E-05	24	0.84%	146	7.75E-06
								Total		17,442	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_PM25	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	15,810
EBBWS_PM25	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	17,442
									Total	33,252

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - EBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	181	2.22E-05	9	7.11%	1125	1.37E-04	17	7.39%	1169	1.43E-04
2	0.42%	66	8.11E-06	10	4.39%	694	8.48E-05	18	8.18%	1294	1.58E-04
3	0.40%	64	7.79E-06	11	4.66%	737	9.01E-05	19	5.70%	901	1.10E-04
4	0.26%	41	4.96E-06	12	5.89%	931	1.14E-04	20	4.28%	676	8.27E-05
5	0.49%	78	9.54E-06	13	6.15%	973	1.19E-04	21	3.25%	514	6.28E-05
6	0.90%	143	1.74E-05	14	6.04%	955	1.17E-04	22	3.30%	522	6.38E-05
7	3.79%	599	7.32E-05	15	7.01%	1109	1.36E-04	23	2.46%	389	4.76E-05
8	7.76%	1227	1.50E-04	16	7.14%	1129	1.38E-04	24	1.86%	295	3.60E-05
								Total		15,810	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	200	2.47E-05	9	7.11%	1241	1.53E-04	17	7.39%	1289	1.59E-04
2	0.42%	73	9.05E-06	10	4.39%	765	9.47E-05	18	8.18%	1427	1.77E-04
3	0.40%	70	8.70E-06	11	4.66%	813	1.01E-04	19	5.70%	994	1.23E-04
4	0.26%	45	5.54E-06	12	5.89%	1027	1.27E-04	20	4.28%	746	9.23E-05
5	0.49%	86	1.07E-05	13	6.15%	1073	1.33E-04	21	3.25%	567	7.02E-05
6	0.90%	157	1.95E-05	14	6.04%	1053	1.30E-04	22	3.30%	575	7.12E-05
7	3.79%	661	8.17E-05	15	7.01%	1223	1.51E-04	23	2.46%	429	5.31E-05
8	7.76%	1354	1.67E-04	16	7.14%	1246	1.54E-04	24	1.86%	325	4.02E-05
								Total		17,442	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEXH	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	15,810
EBBWS_TEXH	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	17,442
									Total	33,252

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - EBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	181	3.52E-04	9	7.11%	1125	2.19E-03	17	7.39%	1169	2.27E-03
2	0.42%	66	1.29E-04	10	4.39%	694	1.35E-03	18	8.18%	1294	2.51E-03
3	0.40%	64	1.24E-04	11	4.66%	737	1.43E-03	19	5.70%	901	1.75E-03
4	0.26%	41	7.89E-05	12	5.89%	931	1.81E-03	20	4.28%	676	1.31E-03
5	0.49%	78	1.52E-04	13	6.15%	973	1.89E-03	21	3.25%	514	9.99E-04
6	0.90%	143	2.77E-04	14	6.04%	955	1.86E-03	22	3.30%	522	1.01E-03
7	3.79%	599	1.16E-03	15	7.01%	1109	2.15E-03	23	2.46%	389	7.56E-04
8	7.76%	1227	2.39E-03	16	7.14%	1129	2.19E-03	24	1.86%	295	5.73E-04
								Total		15,810	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - EBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	200	3.93E-04	9	7.11%	1241	2.44E-03	17	7.39%	1289	2.54E-03
2	0.42%	73	1.44E-04	10	4.39%	765	1.51E-03	18	8.18%	1427	2.81E-03
3	0.40%	70	1.38E-04	11	4.66%	813	1.60E-03	19	5.70%	994	1.96E-03
4	0.26%	45	8.81E-05	12	5.89%	1027	2.02E-03	20	4.28%	746	1.47E-03
5	0.49%	86	1.69E-04	13	6.15%	1073	2.11E-03	21	3.25%	567	1.12E-03
6	0.90%	157	3.10E-04	14	6.04%	1053	2.07E-03	22	3.30%	575	1.13E-03
7	3.79%	661	1.30E-03	15	7.01%	1223	2.41E-03	23	2.46%	429	8.45E-04
8	7.76%	1354	2.66E-03	16	7.14%	1246	2.45E-03	24	1.86%	325	6.40E-04
								Total		17,442	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_TEVAP	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	15,810
EBBWS_TEVAP	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	17,442
									Total	33,252

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - EBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	181	4.95E-04	9	7.11%	1125	3.07E-03	17	7.39%	1169	3.19E-03
2	0.42%	66	1.81E-04	10	4.39%	694	1.90E-03	18	8.18%	1294	3.53E-03
3	0.40%	64	1.74E-04	11	4.66%	737	2.01E-03	19	5.70%	901	2.46E-03
4	0.26%	41	1.11E-04	12	5.89%	931	2.54E-03	20	4.28%	676	1.85E-03
5	0.49%	78	2.13E-04	13	6.15%	973	2.66E-03	21	3.25%	514	1.40E-03
6	0.90%	143	3.90E-04	14	6.04%	955	2.61E-03	22	3.30%	522	1.43E-03
7	3.79%	599	1.64E-03	15	7.01%	1109	3.03E-03	23	2.46%	389	1.06E-03
8	7.76%	1227	3.35E-03	16	7.14%	1129	3.09E-03	24	1.86%	295	8.06E-04
								Total		15,810	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - EBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	200	5.53E-04	9	7.11%	1241	3.43E-03	17	7.39%	1289	3.57E-03
2	0.42%	73	2.02E-04	10	4.39%	765	2.12E-03	18	8.18%	1427	3.95E-03
3	0.40%	70	1.95E-04	11	4.66%	813	2.25E-03	19	5.70%	994	2.75E-03
4	0.26%	45	1.24E-04	12	5.89%	1027	2.84E-03	20	4.28%	746	2.06E-03
5	0.49%	86	2.38E-04	13	6.15%	1073	2.97E-03	21	3.25%	567	1.57E-03
6	0.90%	157	4.35E-04	14	6.04%	1053	2.91E-03	22	3.30%	575	1.59E-03
7	3.79%	661	1.83E-03	15	7.01%	1223	3.38E-03	23	2.46%	429	1.19E-03
8	7.76%	1354	3.74E-03	16	7.14%	1246	3.44E-03	24	1.86%	325	8.99E-04
								Total		17,442	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Eastbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
EBBES_FUG	EB Berryessa East of Sierra Rd	E	2	600.6	0.37	13.3	44	1.3	40	15,810
EBBWS_FUG	EB Berryessa West of Sierra Rd	E	2	607.9	0.38	13.3	44	1.3	40	17,442
									Total	33,252

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - EBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	181	6.85E-04	9	7.11%	1125	4.25E-03	17	7.39%	1169	4.42E-03
2	0.42%	66	2.51E-04	10	4.39%	694	2.62E-03	18	8.18%	1294	4.89E-03
3	0.40%	64	2.41E-04	11	4.66%	737	2.79E-03	19	5.70%	901	3.41E-03
4	0.26%	41	1.54E-04	12	5.89%	931	3.52E-03	20	4.28%	676	2.56E-03
5	0.49%	78	2.95E-04	13	6.15%	973	3.68E-03	21	3.25%	514	1.94E-03
6	0.90%	143	5.40E-04	14	6.04%	955	3.61E-03	22	3.30%	522	1.97E-03
7	3.79%	599	2.26E-03	15	7.01%	1109	4.19E-03	23	2.46%	389	1.47E-03
8	7.76%	1227	4.64E-03	16	7.14%	1129	4.27E-03	24	1.86%	295	1.11E-03
								Total		15,810	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - EBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	200	7.65E-04	9	7.11%	1241	4.75E-03	17	7.39%	1289	4.93E-03
2	0.42%	73	2.80E-04	10	4.39%	765	2.93E-03	18	8.18%	1427	5.46E-03
3	0.40%	70	2.69E-04	11	4.66%	813	3.11E-03	19	5.70%	994	3.80E-03
4	0.26%	45	1.71E-04	12	5.89%	1027	3.93E-03	20	4.28%	746	2.86E-03
5	0.49%	86	3.30E-04	13	6.15%	1073	4.11E-03	21	3.25%	567	2.17E-03
6	0.90%	157	6.02E-04	14	6.04%	1053	4.03E-03	22	3.30%	575	2.20E-03
7	3.79%	661	2.53E-03	15	7.01%	1223	4.68E-03	23	2.46%	429	1.64E-03
8	7.76%	1354	5.18E-03	16	7.14%	1246	4.77E-03	24	1.86%	325	1.24E-03
								Total		17,442	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_DPM	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	43.7	3.4	40	19,368
WBBWS_DPM	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	43.7	3.4	40	21,552
									Total	40,920

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.00050			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and DPM Emissions - WBBES_DPM

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	770	4.00E-05	9	6.45%	1248	6.49E-05	17	5.61%	1086	5.64E-05
2	2.63%	510	2.65E-05	10	7.45%	1444	7.50E-05	18	3.20%	619	3.22E-05
3	2.86%	553	2.87E-05	11	6.39%	1238	6.43E-05	19	2.19%	424	2.21E-05
4	3.25%	629	3.27E-05	12	7.01%	1357	7.05E-05	20	0.85%	164	8.53E-06
5	2.18%	423	2.20E-05	13	6.28%	1216	6.32E-05	21	3.09%	598	3.11E-05
6	3.30%	640	3.33E-05	14	6.17%	1194	6.21E-05	22	4.26%	826	4.29E-05
7	6.05%	1173	6.09E-05	15	5.10%	988	5.14E-05	23	2.58%	499	2.59E-05
8	4.43%	858	4.46E-05	16	3.87%	750	3.90E-05	24	0.84%	163	8.45E-06
								Total		19,368	

2030 Hourly Traffic Volumes Per Direction and DPM Emissions - WBBWS_DPM

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	857	4.53E-05	9	6.45%	1389	7.35E-05	17	5.61%	1208	6.39E-05
2	2.63%	567	3.00E-05	10	7.45%	1606	8.50E-05	18	3.20%	689	3.65E-05
3	2.86%	615	3.26E-05	11	6.39%	1377	7.29E-05	19	2.19%	472	2.50E-05
4	3.25%	700	3.70E-05	12	7.01%	1510	7.99E-05	20	0.85%	183	9.66E-06
5	2.18%	471	2.49E-05	13	6.28%	1353	7.16E-05	21	3.09%	665	3.52E-05
6	3.30%	712	3.77E-05	14	6.17%	1329	7.03E-05	22	4.26%	919	4.86E-05
7	6.05%	1305	6.90E-05	15	5.10%	1100	5.82E-05	23	2.58%	555	2.94E-05
8	4.43%	955	5.05E-05	16	3.87%	834	4.41E-05	24	0.84%	181	9.58E-06
								Total		21,552	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_PM25	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	19,368
WBBWS_PM25	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	21,552
									Total	40,920

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001179			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and PM2.5 Emissions - WBBES_PM25

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	222	2.70E-05	9	7.11%	1378	1.68E-04	17	7.39%	1432	1.74E-04
2	0.42%	81	9.88E-06	10	4.39%	850	1.03E-04	18	8.18%	1585	1.93E-04
3	0.40%	78	9.50E-06	11	4.66%	903	1.10E-04	19	5.70%	1104	1.34E-04
4	0.26%	50	6.05E-06	12	5.89%	1140	1.39E-04	20	4.28%	829	1.01E-04
5	0.49%	96	1.16E-05	13	6.15%	1191	1.45E-04	21	3.25%	630	7.66E-05
6	0.90%	175	2.13E-05	14	6.04%	1169	1.42E-04	22	3.30%	639	7.77E-05
7	3.79%	734	8.92E-05	15	7.01%	1358	1.65E-04	23	2.46%	477	5.80E-05
8	7.76%	1504	1.83E-04	16	7.14%	1383	1.68E-04	24	1.86%	361	4.39E-05
								Total		19,368	

2030 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WBBWS_PM25

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	247	3.06E-05	9	7.11%	1533	1.90E-04	17	7.39%	1593	1.97E-04
2	0.42%	90	1.12E-05	10	4.39%	946	1.17E-04	18	8.18%	1764	2.18E-04
3	0.40%	87	1.08E-05	11	4.66%	1005	1.24E-04	19	5.70%	1228	1.52E-04
4	0.26%	55	6.85E-06	12	5.89%	1269	1.57E-04	20	4.28%	922	1.14E-04
5	0.49%	106	1.32E-05	13	6.15%	1326	1.64E-04	21	3.25%	701	8.68E-05
6	0.90%	195	2.41E-05	14	6.04%	1301	1.61E-04	22	3.30%	711	8.80E-05
7	3.79%	816	1.01E-04	15	7.01%	1511	1.87E-04	23	2.46%	531	6.57E-05
8	7.76%	1673	2.07E-04	16	7.14%	1539	1.91E-04	24	1.86%	402	4.97E-05
								Total		21,552	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_TEXH	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	19,368
WBBWS_TEXH	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	21,552
									Total	40,920

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	40			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.020015			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.001268			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.01875			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Exhaust Emissions - WBBES_TEXH

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	222	4.29E-04	9	7.11%	1378	2.66E-03	17	7.39%	1432	2.77E-03
2	0.42%	81	1.57E-04	10	4.39%	850	1.64E-03	18	8.18%	1585	3.06E-03
3	0.40%	78	1.51E-04	11	4.66%	903	1.75E-03	19	5.70%	1104	2.13E-03
4	0.26%	50	9.62E-05	12	5.89%	1140	2.20E-03	20	4.28%	829	1.60E-03
5	0.49%	96	1.85E-04	13	6.15%	1191	2.30E-03	21	3.25%	630	1.22E-03
6	0.90%	175	3.38E-04	14	6.04%	1169	2.26E-03	22	3.30%	639	1.24E-03
7	3.79%	734	1.42E-03	15	7.01%	1358	2.63E-03	23	2.46%	477	9.22E-04
8	7.76%	1504	2.91E-03	16	7.14%	1383	2.67E-03	24	1.86%	361	6.98E-04
								Total		19,368	

2030 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - WBBWS_TEXH

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	247	4.86E-04	9	7.11%	1533	3.02E-03	17	7.39%	1593	3.14E-03
2	0.42%	90	1.78E-04	10	4.39%	946	1.86E-03	18	8.18%	1764	3.47E-03
3	0.40%	87	1.71E-04	11	4.66%	1005	1.98E-03	19	5.70%	1228	2.42E-03
4	0.26%	55	1.09E-04	12	5.89%	1269	2.50E-03	20	4.28%	922	1.81E-03
5	0.49%	106	2.09E-04	13	6.15%	1326	2.61E-03	21	3.25%	701	1.38E-03
6	0.90%	195	3.83E-04	14	6.04%	1301	2.56E-03	22	3.30%	711	1.40E-03
7	3.79%	816	1.61E-03	15	7.01%	1511	2.97E-03	23	2.46%	531	1.04E-03
8	7.76%	1673	3.29E-03	16	7.14%	1539	3.03E-03	24	1.86%	402	7.91E-04
								Total		21,552	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2030

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
WBBES_TEVAP	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	19,368
WBBWS_TEVAP	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	21,552
									Total	40,920

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.05417			
Emissions per Vehicle per Mile (g/VMT)	0.02635			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and TOG Evaporative Emissions - WBBES_TEVAP

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	222	6.04E-04	9	7.11%	1378	3.74E-03	17	7.39%	1432	3.89E-03
2	0.42%	81	2.21E-04	10	4.39%	850	2.31E-03	18	8.18%	1585	4.31E-03
3	0.40%	78	2.12E-04	11	4.66%	903	2.45E-03	19	5.70%	1104	3.00E-03
4	0.26%	50	1.35E-04	12	5.89%	1140	3.10E-03	20	4.28%	829	2.25E-03
5	0.49%	96	2.60E-04	13	6.15%	1191	3.24E-03	21	3.25%	630	1.71E-03
6	0.90%	175	4.75E-04	14	6.04%	1169	3.18E-03	22	3.30%	639	1.74E-03
7	3.79%	734	1.99E-03	15	7.01%	1358	3.69E-03	23	2.46%	477	1.30E-03
8	7.76%	1504	4.09E-03	16	7.14%	1383	3.76E-03	24	1.86%	361	9.82E-04
								Total		19,368	

2030 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - WBBWS_TEVAP

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	247	6.84E-04	9	7.11%	1533	4.24E-03	17	7.39%	1593	4.41E-03
2	0.42%	90	2.50E-04	10	4.39%	946	2.62E-03	18	8.18%	1764	4.88E-03
3	0.40%	87	2.41E-04	11	4.66%	1005	2.78E-03	19	5.70%	1228	3.40E-03
4	0.26%	55	1.53E-04	12	5.89%	1269	3.51E-03	20	4.28%	922	2.55E-03
5	0.49%	106	2.94E-04	13	6.15%	1326	3.67E-03	21	3.25%	701	1.94E-03
6	0.90%	195	5.38E-04	14	6.04%	1301	3.60E-03	22	3.30%	711	1.97E-03
7	3.79%	816	2.26E-03	15	7.01%	1511	4.18E-03	23	2.46%	531	1.47E-03
8	7.76%	1673	4.63E-03	16	7.14%	1539	4.26E-03	24	1.86%	402	1.11E-03
								Total		21,552	

San Jose Flea Market - City's Project Cumulative Traffic -Roadway Emissions
Westbound Berryessa Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2030

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link[a] Width (m)	Link Width (ft)	Release[a] Height (m)	Average Speed (mph)	Average Vehicles per Day
WBBES_FUG	WB Berryessa East of Sierra Rd	W	2	597.5	0.37	13.3	44	1.3	40	19,368
WBBWS_FUG	WB Berryessa West of Sierra Rd	W	2	608.2	0.38	13.3	44	1.3	40	21,552
									Total	40,920

[a] EPA 2015 - Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas, Appendix J

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00220			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01736			
Road Dust - Emissions per Vehicle (g/VMT)	0.01691			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03647			

Emisson Factors from CT-EMFAC2017

2030 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - WBBES_FUG

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	222	8.35E-04	9	7.11%	1378	5.18E-03	17	7.39%	1432	5.39E-03
2	0.42%	81	3.06E-04	10	4.39%	850	3.20E-03	18	8.18%	1585	5.96E-03
3	0.40%	78	2.94E-04	11	4.66%	903	3.40E-03	19	5.70%	1104	4.15E-03
4	0.26%	50	1.87E-04	12	5.89%	1140	4.29E-03	20	4.28%	829	3.12E-03
5	0.49%	96	3.60E-04	13	6.15%	1191	4.48E-03	21	3.25%	630	2.37E-03
6	0.90%	175	6.57E-04	14	6.04%	1169	4.40E-03	22	3.30%	639	2.40E-03
7	3.79%	734	2.76E-03	15	7.01%	1358	5.11E-03	23	2.46%	477	1.79E-03
8	7.76%	1504	5.66E-03	16	7.14%	1383	5.20E-03	24	1.86%	361	1.36E-03
								Total		19,368	

2030 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - WBBWS_FUG

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	247	9.46E-04	9	7.11%	1533	5.87E-03	17	7.39%	1593	6.10E-03
2	0.42%	90	3.46E-04	10	4.39%	946	3.62E-03	18	8.18%	1764	6.75E-03
3	0.40%	87	3.33E-04	11	4.66%	1005	3.85E-03	19	5.70%	1228	4.70E-03
4	0.26%	55	2.12E-04	12	5.89%	1269	4.86E-03	20	4.28%	922	3.53E-03
5	0.49%	106	4.07E-04	13	6.15%	1326	5.08E-03	21	3.25%	701	2.68E-03
6	0.90%	195	7.45E-04	14	6.04%	1301	4.98E-03	22	3.30%	711	2.72E-03
7	3.79%	816	3.13E-03	15	7.01%	1511	5.79E-03	23	2.46%	531	2.03E-03
8	7.76%	1673	6.41E-03	16	7.14%	1539	5.89E-03	24	1.86%	402	1.54E-03
								Total		21,552	

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 1 Cumulative Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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 =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL	Maximum		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**		**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2023	10	0.0012	0.0439	0.0618	0.016	0.003	0.0003	0.02			
1	1	0 - 1	2023	10	0.0012	0.0439	0.0618	0.192	0.041	0.0034	0.24	0.00	0.08	0.09
2	1	1 - 2	2024	10	0.0012	0.0439	0.0618	0.192	0.041	0.0034	0.24			
3	1	2 - 3	2025	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
4	1	3 - 4	2026	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
5	1	4 - 5	2027	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
6	1	5 - 6	2028	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
7	1	6 - 7	2029	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
8	1	7 - 8	2030	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
9	1	8 - 9	2031	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
10	1	9 - 10	2032	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
11	1	10 - 11	2033	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
12	1	11 - 12	2034	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
13	1	12 - 13	2035	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
14	1	13 - 14	2036	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
15	1	14 - 15	2037	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
16	1	15 - 16	2038	3	0.0012	0.0439	0.0618	0.030	0.006	0.0005	0.04			
17	1	16-17	2039	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
18	1	17-18	2040	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
19	1	18-19	2041	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
20	1	19-20	2042	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
21	1	20-21	2043	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
22	1	21-22	2044	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
23	1	22-23	2045	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
24	1	23-24	2046	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
25	1	24-25	2047	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
26	1	25-26	2048	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
27	1	26-27	2049	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
28	1	27-28	2050	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
29	1	28-29	2051	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
30	1	29-30	2052	1	0.0012	0.0439	0.0618	0.003	0.001	0.0001	0.004			
Total Increased Cancer Risk								0.87	0.187	0.015	**1.1**			

* Third trimester of pregnancy

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 2 Cumulative Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	Exposure Duration (years)	Age	Year	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
0	0.25	-0.25 - 0*	2023	10	0.0011	0.0399	0.0562	0.015	0.003	0.0003	0.02
1	1	0 - 1	2023	10	0.0011	0.0399	0.0562	0.176	0.037	0.0031	0.22
2	1	1 - 2	2024	10	0.0011	0.0399	0.0562	0.176	0.037	0.0031	0.22
3	1	2 - 3	2025	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
4	1	3 - 4	2026	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
5	1	4 - 5	2027	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
6	1	5 - 6	2028	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
7	1	6 - 7	2029	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
8	1	7 - 8	2030	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
9	1	8 - 9	2031	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
10	1	9 - 10	2032	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
11	1	10 - 11	2033	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
12	1	11 - 12	2034	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
13	1	12 - 13	2035	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
14	1	13 - 14	2036	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
15	1	14 - 15	2037	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
16	1	15 - 16	2038	3	0.0011	0.0399	0.0562	0.028	0.006	0.0005	0.03
17	1	16-17	2039	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
18	1	17-18	2040	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
19	1	18-19	2041	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
20	1	19-20	2042	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
21	1	20-21	2043	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
22	1	21-22	2044	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
23	1	22-23	2045	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
24	1	23-24	2046	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
25	1	24-25	2047	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
26	1	25-26	2048	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
27	1	26-27	2049	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
28	1	27-28	2050	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
29	1	28-29	2051	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
30	1	29-30	2052	1	0.0011	0.0399	0.0562	0.003	0.001	0.0001	0.004
Total Increased Cancer Risk								0.80	0.170	0.014	**1.0**

Maximum		
Hazard Index	Fugitive PM2.5	Total PM2.5
0.00	0.08	0.08

* Third trimester of pregnancy

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**9/6/2019**
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin
Phone	707-794-0400x111
Email	mmcnamara@illingworthrodkin.com
Project Name	San Jose Flea Market
Address	1590 Berryessa Road
City	San Jose
County	Santa Clara
commercial, mixed use, industrial, etc.)	Mixed use
Project Size (# of units or building square feet)	3450 residential units and over 2 million square feet of commercial sapce
Comments: Plant #100227 would be shut down with development of the project	

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

1. Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in **Table B** blue section only.

6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Areana Flores at 415-749-4616, or aflores@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	FNAME	FSTREET	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments
530	181	Granite Rock	11711 Berryessa Road	0.258360639	0.001807	4.421653		Multiple		Emissions file attached. Use Health Risk Calculator to estimate risk.
630	15727	California Waste Solutions	1005 Timothy Drive		0	0.232346		conveyor		" "
900	2197	Elcon Precision LLC	1009 Timothy Drive		0.000994	0		Multiple		" "
870	107953	City of San Jose Mabury Yard	1404 Mabury Rd	0.764514592	0.003774	0		GDF		" "
On-site	100227	San Jose Flea Market	1590 Berryessa Road	9.102747592	0.044938	0		GDF		" "
180	23553	Santa Clara VTA	909 Berryessa Station Way					Generators (2)		" "

Footnotes:

1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or less. To
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect the
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

OFFSITE SENSITIVE RECEPTOR MEI

Source	Cancer Risk	Annual $PM_{2.5}$	Hazard	Weight Factor Adjustment
Granite Rock (Plant #181, Asphalt Batch Plant)	-	**0.02**	-	**YES**
MEI Distance: >1,000 feet east				
Elon Precision LLC (Plant #2197, Metal Finisher)	-	-	**0.01**	
MEI Distance >1,000 feet east				
California Waste Solution (Plant #15727, Recycling Facility)	-	**0.03**	-	
Mei Distance >1,000 feet east				
Santa Clara Valley Transportation Authority (Plant #23553, Generator)	**0.12**	**0.01**	**0.005**	**YES**
MEI Distance: 240 feet northeast				
SRDC Inc (Plant #10792, Multiple Sources)	-	**0.00077**	-	**YES and modeled in AERMOD**
MEI Distance: > 1,000 feet east				
City of San Jose Mabury Yard (Plant #107953, Gas Dispensing Facility)	**0.01**	-	-	
MEI Distance >1,000 feet northeast				
TOTAL	**0.13**	**0.06**	**0.02**	

ONSITE SENSITIVE RECEPTORS

Source	Cancer Risk	Annual $PM_{2.5}$	Hazard	Weight Factor Adjustment
Granite Rock (Plant #181, Asphalt Batch Plant)	-	**0.04**	-	**YES**
MEI Distance: 540 feet east				
Elon Precision LLC (Plant #2197, Metal Finisher)	-	-	**0.01**	
MEI Distance >1,000 feet east				
California Waste Solution (Plant #15727, Recycling Facility)	-	**0.04**	-	
Mei Distance 860 feet east				
Santa Clara Valley Transportation Authority (Plant #23553, Generator)	**0.039**	**0.00**	**0.00**	**YES**
MEI Distance: 545 feet northeast				
SRDC Inc (Plant #10792, Multiple Sources)	-	**0.01**	-	**YES and modeled in AERMOD**
MEI Distance: 285 feet east				
City of San Jose Mabury Yard (Plant #107953, Gas Dispensing Facility)	**0.1**	-	-	
MEI Distance >1,000 feet northeast				
TOTAL	**0.14**	**0.09**	**0.01**	

SOURCE	PM PROFILE NAME	WEIGHT FRACTION OF PM2.5/TPM	WEIGHT FRACTION OF PM2.5/TPM	BAAQMD Particulates (part not spec elsewhere) (1990) Emissions	Adjusted PM2.5 Average Daily Emissions
Granite Rock (Plant #181, Asphalt Batch Plant)	ASPHALT CONCRETE BATCH MIX PLANT (CONTROLLED) and CONCRETE BATCHING	0.332	0.06	3.22E+00	6.41E-02
SRDC Inc (Plant #10792, Multiple Sources)	EPA AVG: MINERAL PRODUCTS	0.33		1.11E+00	3.66E-01
Santa Clara Valley Transportation Authority (Plant #23553, Generator)	BACKUP DIESEL GENERATOR	0.951		3.70E-03	3.52E-03

Flea Market, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling SRDC (Plant #10792)

Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2029	Existing Stationary Souce	PM2.5	0.0668	133.7	0.04070	5.13E-03	6,237	**8.22E-07**

Operation Hours

hr/day = 9 (7am - 4pm)

days/yr = 365

hours/year = 3285

*Operation Hours are 7am-3:30pm but assuming 7am-4pm for closing up time

PM2.5 Concentrations		
	Offsite Project MEI	Onsite Receptors
SRDC	0.00077	0.01373

Flea Market, San Jose, CA
Operation Health Impacts Summary

Maximum Impacts for Onsite Receptors - Project Generators

Emissions Year	Maximum Concentrations Exhaust PM10/DPM ($\mu g/m^3$)	Cancer Risk (per million) 30-Year Exposure	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2029-2058	0.00728	**5.4**	0.001	0.007

Maximum Impacts for Onsite Receptors - Option 1 Cumulative Project Traffic Impacts

Emissions Year	DPM (µg/m3)	Exhaust TOG (µg/m3)	Evaporative TOG (µg/m3)	Cancer Risk (per million) 30-Year Exposure	Hazard Index (-)	Annual PM2.5 Concentration (µg/m3)
2029-2058	0.0031	0.1160	0.1629	2.83	0.001	0.256

Maximum Impacts for Onsite Receptors - Option 2 Cumulative Project Traffic Impacts

Emissions Year	DPM (µg/m3)	Exhaust TOG (µg/m3)	Evaporative TOG (µg/m3)	Cancer Risk (per million) 30-Year Exposure	Hazard Index (-)	Annual PM2.5 Concentration (µg/m3)
2029-2058	0.0034	0.1280	0.1801	3.13	0.001	0.231

Flea Market, San Jose CA - Cancer Risks from Project Operation
Project Emergency Generator
Impact at Project MEI (24-year Exposure)

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^{-o} = Conversion factor

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
0	0.25	-0.25 - 0*	2029	0.0073	10	0.10
1	1	0 - 1	2029	0.0073	10	1.20
2	1	1 - 2	2030	0.0073	10	1.20
3	1	2 - 3	2031	0.0073	3	0.19
4	1	3 - 4	2032	0.0073	3	0.19
5	1	4 - 5	2033	0.0073	3	0.19
6	1	5 - 6	2034	0.0073	3	0.19
7	1	6 - 7	2035	0.0073	3	0.19
8	1	7 - 8	2036	0.0073	3	0.19
9	1	8 - 9	2037	0.0073	3	0.19
10	1	9 - 10	2038	0.0073	3	0.19
11	1	10 - 11	2039	0.0073	3	0.19
12	1	11 - 12	2040	0.0073	3	0.19
13	1	12 - 13	2041	0.0073	3	0.19
14	1	13 - 14	2042	0.0073	3	0.19
15	1	14 - 15	2043	0.0073	3	0.19
16	1	15 - 16	2044	0.0073	3	0.19
17	1	16-17	2045	0.0073	1	0.02
18	1	17-18	2046	0.0073	1	0.02
19	1	18-19	2047	0.0073	1	0.02
20	1	19-20	2048	0.0073	1	0.02
21	1	20-21	2049	0.0073	1	0.02
22	1	21-22	2050	0.0073	1	0.02
23	1	22-23	2051	0.0073	1	0.02
24	1	23-24	2052	0.0073	1	0.02
25	1	24-25	2053	0.0073	1	0.02
26	1	25-26	2054	0.0073	1	0.02
27	1	26-27	2055	0.0073	1	0.02
28	1	27-28	2056	0.0073	1	0.02
29	1	28-29	2057	0.0073	1	0.02
30	1	29-30	2058	0.0073	1	0.02
Total Increased Cancer Risk						**5.4**

Maximum	
Hazard Index	Total PM2.5
0.0015	0.0073

* Third trimester of pregnancy

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 1 Cumulative Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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 =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2029	10	0.0031	0.1160	0.1629	0.042	0.009	0.0007	0.05
1	1	0 - 1	2029	10	0.0031	0.1160	0.1629	0.508	0.109	0.0090	0.63
2	1	1 - 2	2030	10	0.0031	0.1160	0.1629	0.508	0.109	0.0090	0.63
3	1	2 - 3	2031	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
4	1	3 - 4	2032	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
5	1	4 - 5	2033	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
6	1	5 - 6	2034	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
7	1	6 - 7	2035	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
8	1	7 - 8	2036	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
9	1	8 - 9	2037	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
10	1	9 - 10	2038	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
11	1	10 - 11	2039	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
12	1	11 - 12	2040	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
13	1	12 - 13	2041	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
14	1	13 - 14	2042	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
15	1	14 - 15	2043	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
16	1	15 - 16	2044	3	0.0031	0.1160	0.1629	0.080	0.017	0.0014	0.10
17	1	16-17	2045	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
18	1	17-18	2046	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
19	1	18-19	2047	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
20	1	19-20	2048	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
21	1	20-21	2049	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
22	1	21-22	2050	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
23	1	22-23	2051	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
24	1	23-24	2052	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
25	1	24-25	2053	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
26	1	25-26	2054	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
27	1	26-27	2055	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
28	1	27-28	2056	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
29	1	28-29	2057	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
30	1	29-30	2058	1	0.0031	0.1160	0.1629	0.009	0.002	0.0002	0.011
Total Increased Cancer Risk								2.30	0.493	0.041	**2.8**

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.001	0.25	0.26

* Third trimester of pregnancy

Flea Market, San Jose, CA
Maximum DPM Cancer Risk Calculations From - Option 2 Cumulative Traffic Emissions on Berryessa Road and Mabury Road
Impacts at Project MEI

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 =	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2023	10	0.0034	0.1280	0.1801	0.047	0.010	0.0008	0.06
1	1	0 - 1	2023	10	0.0034	0.1280	0.1801	0.562	0.120	0.0099	0.69
2	1	1 - 2	2024	10	0.0034	0.1280	0.1801	0.562	0.120	0.0099	0.69
3	1	2 - 3	2025	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
4	1	3 - 4	2026	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
5	1	4 - 5	2027	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
6	1	5 - 6	2028	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
7	1	6 - 7	2029	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
8	1	7 - 8	2030	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
9	1	8 - 9	2031	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
10	1	9 - 10	2032	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
11	1	10 - 11	2033	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
12	1	11 - 12	2034	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
13	1	12 - 13	2035	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
14	1	13 - 14	2036	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
15	1	14 - 15	2037	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
16	1	15 - 16	2038	3	0.0034	0.1280	0.1801	0.088	0.019	0.0016	0.11
17	1	16-17	2039	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
18	1	17-18	2040	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
19	1	18-19	2041	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
20	1	19-20	2042	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
21	1	20-21	2043	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
22	1	21-22	2044	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
23	1	22-23	2045	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
24	1	23-24	2046	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
25	1	24-25	2047	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
26	1	25-26	2048	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
27	1	26-27	2049	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
28	1	27-28	2050	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
29	1	28-29	2051	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
30	1	29-30	2052	1	0.0034	0.1280	0.1801	0.010	0.002	0.0002	0.012
Total Increased Cancer Risk								2.55	0.544	0.045	**3.1**

Maximum		
Hazard Index	**Fugitive PM2.5**	**Total PM2.5**
0.001	0.22	0.23

* Third trimester of pregnancy