3896 STEVENS CREEK BOULEVARD AIR QUALITY AND GREENHOUSE GAS EMISSION ASSESSMENT

San José, California

March 30, 2020

Prepared for:

Amie Ashton
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San Jose, California 95126

Prepared by:

Mimi McNamara &
James A. Reyff

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

I&R Project: #16-036

Introduction

The purpose of this report is to address air quality, community health risk, and greenhouse gas (GHG) impacts associated with the proposed office-retail mixed-use development located at 3896 Stevens Creek Boulevard in San José, California. The air quality impacts from this project would be associated with demolition of the existing uses at the site, construction of the new buildings and infrastructure, and operation of the project. Air pollutants and GHG emissions associated with construction and operation of the project were predicted using models. In addition, the potential project health risk impacts (includes construction and operation) and the impact of existing toxic air contaminant (TAC) sources affecting the nearby sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Project Description

The project site is currently developed with four commercial buildings that are surrounded by surface parking lots. The proposed project would demolish the existing buildings, landscaping, and hardscape, and construct a commercial development consisting of office, retail, restaurant, and health club uses, as well as associated structured parking. Outdoor rooftop use areas and open space areas are also proposed. The proposed project would be housed within two separate structures and parking would be located within a parking garage that would be partially included within and wrapped by the office building.

The proposed 12-story office building with ground-floor commercial space would be built on the northeast corner of the project site, along Stevens Creek Boulevard. The office building would have approximately 308,000 square feet (sf) of office space, 15,488 sf of retail/restaurant space[2]. The maximum height of the office building would be 150 feet. The proposed seven-story, approximately 495,000-square-foot parking garage—containing approximately 1,300 parking spaces, would be built behind and partially integrated into the office building. The maximum height of the parking garage would be 67 feet.

The proposed three-story, approximately 151,258-sf health club building (Life Time) would be built on the southwest corner of the project site, along Saratoga Avenue. The maximum height of the health club building would be 63 feet. The health club building would include group fitness studios, childcare services, basketball courts, weight areas, and a rooftop pool area. The health club building would be open 4:00 a.m. until 12:00 a.m. for members; however, certain programming (i.e., swimming pools, recreational leagues, childcare) would have more limited hours.

Setting

The project is in Santa Clara County, which is part of the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay

[1] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.
[2] The 15,488 sf account for 10,488 sf of retail and 5,000 sf of restaurant

Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

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

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (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 (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

Regulatory Agencies

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.[3] 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 Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[4] The detailed community risk modeling methodology used in this assessment is contained in *Attachment 1*.

San José Envision 2040 General Plan

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

Applicable Goals – Air Pollutant Emission Reduction

Goal MS-10 Minimize emissions from new development.

Applicable Policies – Air Pollutant Emission Reduction

MS-10.1 Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

MS-10.2 Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

MS-10.3 Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.

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.

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

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 closest sensitive receptors to the project site are adult seniors residing at Courtyard Care Center (i.e. a nursing home), which is located across Northlake Drive adjacent to the eastern project boundary. The nearest residence is an apartment complex located at 380 Northlake Drive, which is southeast of the project site. Additional residences are located at a farther distance. This project would not include nor introduce new sensitive receptors to the area.

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 1.

Table 1. BAAQMD Air Quality 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 emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually or 4.6 metric tons per capita (for 2020) 660 metric tons annually or 2.6 metric tons per capita (for 2030) *		

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.

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.

CalEEMod Inputs

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were provided by the project applicant and entered into CalEEMod. Note that two different construction schedules were provided for the proposed office and health club. The model output from CalEEMod along with construction inputs are included as *Attachment 2*.

Land Use Inputs

The project includes office, retail, restaurants, and health club uses. The proposed project land uses were input into CalEEMod as follows:

- 308,000 sf entered as "General Office Building"
- 151,258sf entered as "Health Club",
- 10,488 sf entered as "Strip Mall",
- 1,500 sf entered as "Fast Food Restaurant w/o Drive Thru",
- 3,500 sf entered as "Quality Restaurant",
- 1,300 parking spaces and 495,000 sf entered as "Enclosed Parking with Elevator" and
- 4.8 acres entered as the lot acreage for the project site

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic.

As stated above, separate construction data were provided for the office and health club with overlapping construction between both land uses. The construction phases for the office included

demolition, site preparation, trenching, grading and excavation, exterior building construction, paving and interior building construction. For the health club, the construction phases included site preparation, grading and excavation, building construction, paving and interior. Auger drilling is proposed during the grading phases for both land uses.

Based on the construction schedule for the office and parking garage, the earliest possible start date would be in early 2020 and the project would be built out over a period of approximately 31 months, or approximately 665 construction workdays. For the health club, the earliest possible start date would be in 2021 and the project would be built over approximately 19 months or 405 workdays. Construction of the office building, parking garage, and the health club would overlap in 2021 and 2022. The earliest operational year was assumed to be 2023.

Additionally, the following hauling and earthwork volumes were provided:

Office Building and Parking Garage

- 50,000 sf of building demolition,
- 300 cubic yards (cy) of soil exported,
- 4,000 cement truck round trips and
- 30 cy of asphalt hauled

Health Club

- 8,000 cy of soil exported,
- 5,000 cy of soil imported,
- 4000 cement truck round trips

Summary of Construction Period Emissions

Annual emissions were predicted using CalEEMod. Average daily emissions were computed by dividing the total construction emissions by the number of construction days (665 workdays). Table 2 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 2, predicted construction period emissions would not exceed the BAAQMD significance thresholds.

Table 2. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Total construction emissions (tons)	3.9 tons	14.9 tons	0.54 tons	0.51 tons
Average daily emissions (pounds)[1]	**11.8 lbs./day**	**44.8 lbs./day**	**1.6 lbs./day**	**1.5 lbs./day**
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

[1]Assumes 665 workdays.

However, construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines

consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices*.

Mitigation Measure AQ-1: **Include measures to control dust and exhaust during construction.**

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

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

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

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

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

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

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Mitigation Measure AQ-1

The measures included above would be consistent with BAAQMD-recommended basic control measures for reducing fugitive particulate matter that are contained in the BAAQMD CEQA Air Quality Guidelines.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future employees, customers, and vendors. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. Emissions from the proposed 1,000 kilowatt (kW) were also included assuming 50 hours per year for testing and maintenance. 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. The traffic consultants provided daily trip generation rates for this project, which included specific trip reductions.[5] For each land use type, the forecasted daily trip rate with trip reductions applied was divided by the quantity of that land use to identify the weekday daily trip rate. 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. The default trip lengths and trip types specified by CalEEMod were used. Table 3 lists the project specific trip generation rates used.

Table 3. Traffic Trip Generation Rates for the Project

Land Use	Size	Daily Trips	Adjusted Daily Trips with Reductions[1]	Adjusted Weekday Trip Rate[2]	Adjusted Saturday Trip Rate[2]	Adjusted Sunday Trip Rate[2]
General Office Building	308,000 sf	3,000	2,489	8.08	1.80	0.77
Health Club	151,258 sf	5,099	4,379	28.95	18.35	23.50
Retail	10,488 sf	378	325	31.11	29.51	14.34
Quality Restaurant	3,500 sf	293	251	71.71	75.23	57.53
Fast Food w/o Drive Thru	1,500 sf	1,132	934	622.67	605.27	434.82

[1]Reductions include internal capture, location-based vehicle mode share, and project-specific trip reductions. The pass-by reduction was not included since CalEEMod already accounts for daily pass-by and diverted trips.
[2]Trip rate per 1,000 sf

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. PG&E published in 2019 emissions rates for 2010 through 2017, which showed the emission rate for delivered electricity had been reduced to 210 pounds CO2 per megawatt of electricity delivered in the year 2017.[6] The rate was adjusted to account for PG&E's

[5] Hexagon Traffic Consultant, 2020. *360 Saratoga Avenue Commercial Development*. March.
[6] PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

projected 2020 CO_2 intensity rate. This 2020 rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. The derived 2020 rate for PG&E was estimated at 290 pounds of CO_2 per megawatt of electricity delivered.[7] However, the project would use electricity supplied by San Jose Clean Energy (SJCE) that will be 100-percent carbon free by 2021 before the project becomes operational.[8]

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project. Water/wastewater use was changed to 100% aerobic conditions to represent wastewater treatment plant conditions.

Existing Uses

The existing land use consists of four commercial buildings, which include retail and restaurant land uses. The existing site was modeled as 47,631 sf of strip mall and the project specific trip rate was applied. CalEEMod historical energy usage was applied.

Summary of Operational Period Emissions

As shown in Table 4, operational emissions would not exceed the BAAQMD significance thresholds.

Table 4. Operational Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2023 Project Operational Emissions (*tons/year*)	3.8 tons	6.3 tons	5.2 tons	1.5 tons
2023 Existing Operational Emissions (*tons/year*)	0.3 tons	0.3 tons	0.3 tons	0.1 tons
Net Annual Emissions	3.5 tons	6.0 tons	4.9 tons	1.4 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	*No*	*No*	*No*	*No*
2022 Project Operational Emissions (*lbs./day*)[1]	19.0lbs.	32.8 lbs.	26.9 lbs.	7.6 lbs.
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	*No*	*No*	*No*	*No*

Notes: [1] Assumes 365-day operation.

[7] Pacific Gas & Electric, 2015. *Greenhouse Gas Emission Factors: Guidance for PG&E Customers*. November. https://www.ca-ilg.org/sites/main/files/file-attachments/ghg_emission_factor_guidance.pdf

[8] Kerrie Romanow and Rosalynn Hughey, 2019. *Building reach Code for New Construction Memorandum*. August. Web: https://sanjose.legistar.com/LegislationDetail.aspx?ID=4090015&GUID=278596A7-1A2B-4248-B794-7A34E2279E85

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

Project impacts related to increased community risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity or by significantly exacerbating existing cumulative TAC impacts. This project would introduce new sources of TACs during construction (i.e. temporary short-term construction emissions) and operation (i.e. increased traffic volumes and a diesel generator). A community risk assessment was prepared to address the effects of project construction and operational impacts on the surrounding off-site sensitive receptors. There are also several sources of TACs and localized air pollutants in the vicinity of the project. The impact of the existing sources of TAC upon the existing sensitive receptors was assessed. Community risk impacts are 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 methodology for computing community risks impacts is contained in *Attachment 1*.

Community Risks from Project Construction

Although it was concluded in the previous sections that construction exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations (See Table 2), construction exhaust emissions may still 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 $PM_{2.5}$. Diesel exhaust (which is a TAC) poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[9] 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 vehicles, with total emissions from all construction stages of 0.5280 tons (1,056 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.1127 tons (225 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (e.g. residences and adult seniors) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use

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

in modeling analysis of these types of emission activities for CEQA projects.[10] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions. Exhaust emissions are represented by a group of point sources, while fugitive dust emissions are represented by area sources. For this project, a combination of area and point sources were used to model the construction of the office building, parking structure, and health club. The construction of all three structures would not occur simultaneously but instead overlap over the three-year period (2020-2022). Therefore, to account for the overlapping construction, the project site was split into three construction zones: one zone for the entire project site[11], one zone for the office and parking garage structures, and one zone for the health club. The construction zones used for the office and health club were based on project plans.

For the demolition phase, the AERMOD modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 20 feet (6 meters) was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 7 feet (2 meters) was used for the area source.

For the other construction phases (excluding the demolition phase), combustion equipment exhaust emissions were modeled as a series of point sources with a nine-foot release height (construction equipment exhaust stack height) placed at 23 feet (7 meter) intervals throughout the construction site. This resulted in 225 individual point sources being used to represent construction equipment DPM exhaust emissions in the office construction area and 176 individual point sources to represent DPM emissions in the health club construction area. DPM emissions would occur throughout the project construction site. Emissions from vehicle travel on- and off-site were distributed among the point sources throughout the site. For both construction areas (office and health club), construction fugitive $PM_{2.5}$ dust emissions were modeled as an area source encompassing the entire construction site with a near ground level release height of two meters. There was a total of two area sources used for both construction sites. Construction emissions were modeled as occurring daily between 7:00 a.m. to 7:00 p.m. per the project applicant's construction schedules.

The modeling used a 5-year meteorological data set (2006-2010) from the San José Airport prepared for use with the AERMOD model by the BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2020-2022 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptor locations. Receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing heights of residents in nearby apartments and condominiums on the first and second floors, respectively. Infant and adult exposures were assumed to occur at all residences during the

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

[11] Note that minor roadwork along Stevens Creek Boulevard, Saratoga Avenue, and Northlake Drive are proposed with this project. The roadwork emissions were included as part of the on-site construction since the project site is closer to sensitive receptors.

entire construction period. BAAQMD-recommended exposure parameters were used for the cancer risk calculations, as described in *Attachment 1*.

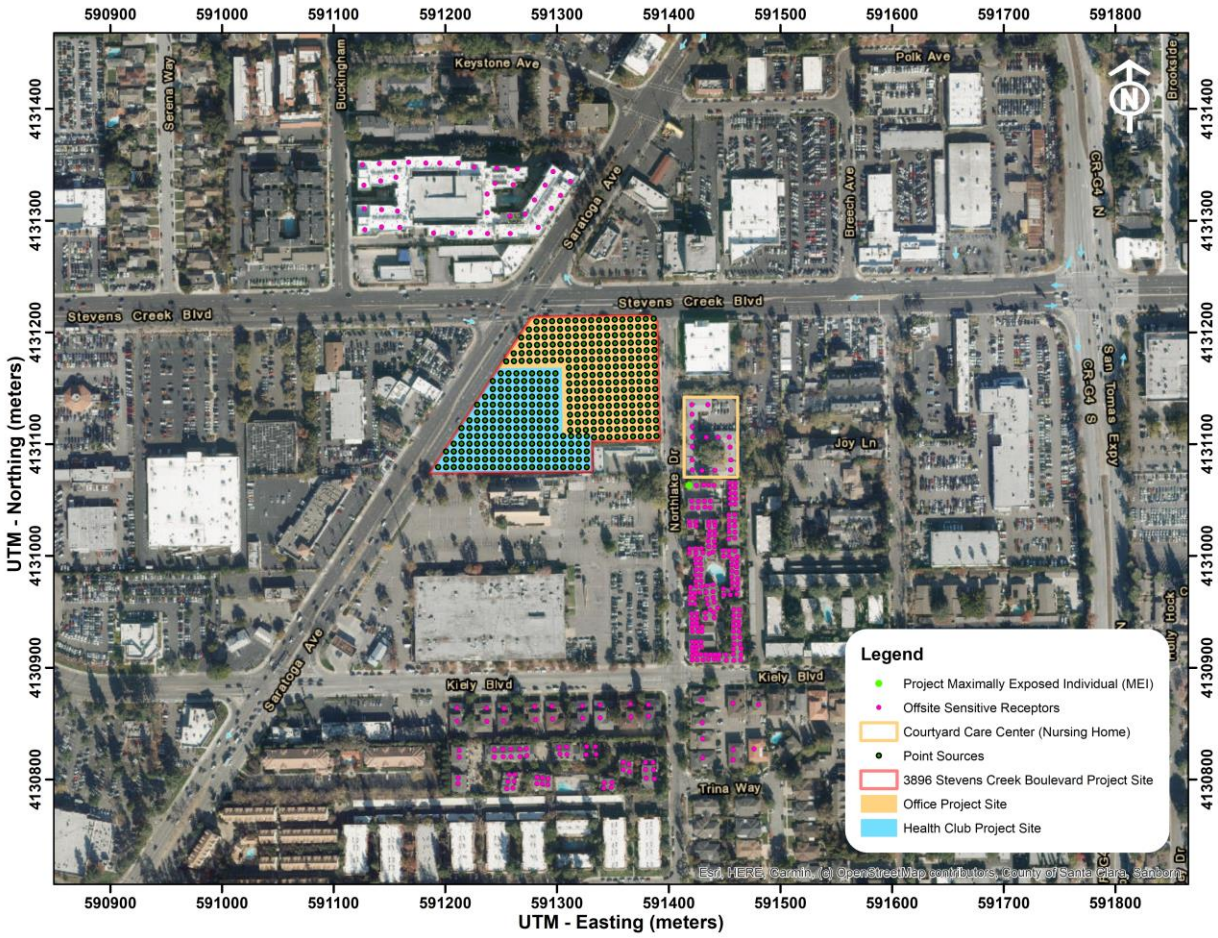
Predicted Construction Health Risks

The maximum-modeled DPM and $PM_{2.5}$ concentrations occurred on the second floor of the Northlake Ambassador Apartments, which are southeast of the construction site along Northlake Drive. The exact location where the maximum $PM_{2.5}$ and DPM concentrations occurred is identified on Figure 1. Results of the assessment indicated that the maximum incremental residential infant/child cancer and the maximum annual $PM_{2.5}$ concentration would exceed their respective BAAQMD single-source thresholds. *Mitigation Measures AQ-2* would reduce this risk value to a level below the threshold. Table 5 lists the construction community risk impacts from construction at the MEI. *Attachment 3* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Table 5. 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	**84.2 (infant)**	**0.40**	0.06
Mitigated	7.7 (infant)	0.07	0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	***Yes***	*No*
Mitigated	*No*	*No*	*No*

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



Community Risks from Project Operation – Traffic and Generators

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The project would not introduce new sensitive receptors. However, the project would generate automobile traffic and infrequent truck traffic and introduce a diesel generator.

Operational Traffic

BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways may have a potentially significant effect on sensitive receptors. Two adjustments were made to the cancer risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates predicted using EMFAC2014 and (2) adjustment of cancer risk to reflect new Office of Environmental Health Hazard Assessment (OEHHA) guidance (see *Attachment 1*).

The calculator uses EMFAC2011 emission rates for the year 2014. Overall, emission rates will decrease by the time the project is constructed and occupied. In addition, a new version of the emissions factor model, EMFAC2014 is available. This version predicts lower emission rates. An adjustment factor of 0.5 was developed by comparing emission rates of total organic gases (TOG) for running exhaust and running losses developed using EMFAC2011 for year 2014 and those from EMFAC2014 for 2018. The predicted cancer risk was then adjusted using a factor of 1.3744 to account for new OEHHA guidance. This factor was provided by BAAQMD for use with their CEQA screening tools that are used to predict cancer risk.

The project would generate 7,704 net new vehicle trips per day.[12] The effect of local traffic generated by the project was computed through use of the BAAQMD's *Roadway Screening Analysis Calculator* with input of the project's daily traffic on Saratoga Avenue, Stevens Creek Boulevard, Northlake Drive, and Kiely Boulevard. New project trips forecasted by the traffic consultants for each of the roadways were input into the calculator by taking the average peak hour volume and multiplying by ten to obtain the average daily traffic volume (ADT).

The cancer risk was adjusted for exposure duration since the MEI would only be exposed to the increased traffic impacts once the project would be operational. The exposure duration was adjusted for 27 years of exposure (note that construction would last approximately three years) and the distance from the roadway was adjusted for each roadway. The contribution of each roadway was then summed.

The Northlake Ambassador Apartments (where the construction MEI was identified in Figure 1) would be most affected by the increased project traffic Use of this calculator with project traffic would result in an increase of cancer risk by 0.9 chances per million and annual $PM_{2.5}$ concentrations of 0.05 $\mu g/m^3$. These risk levels are below the BAAQMD thresholds of 10 chances

[12] Hexagon Traffic Consultant, 2020. *360 Saratoga Avenue Commercial Development*. March. Note this net new vehicle trips per day was based on trip generation rates with the retail being 10,488 sf. The retail has since been reduced to 10,000 sf and the number of net new vehicle trips per day has slightly decreased.

per million and 0.3 µg/m^3. BAAQMD has found that non-cancer hazards (i.e. HI) were found to be minimal for all surface streets and the HI value is therefore not included. Note this is a screening method and had refined modeling been conducted, lower impacts would likely have been identified.

Operational Emergency Generator Modeling

The project would include two emergency generators. Operation of a diesel generator would be a source of TAC emissions. Based on information from the project applicant, the generators would be approximately 1,000-kilowatt (kW) in size and located at ground level in the southern portion of the project site (see Figure 2). Specific generator engine size information was unknown at the time of this analysis. However, it was assumed that the emergency back-up generators would be powered by a diesel engine (approximately 1,340 horsepower [hp]). (see *Attachment 3*).

It was also assumed that the generator would be operated for 50 hours year for non-emergency reasons, which includes testing and maintenance purposes. During testing periods, the engine would typically be run for less than one hour under light engine loads. The generator engine would be required to meet U.S. EPA emission standards and consume commercially available California low sulfur diesel fuel. The emissions from the operation of the generator were calculated using the CalEEMod model.

This diesel engine 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 (TBACT) 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.

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 off-site sensitive receptors identified in Figure 1 were used in the generator dispersion modeling.

The modeling was conducted using a five-year data set (2006-2010) of hourly meteorological data from the San Jose Airport meteorological site prepared for use with the AERMOD model by BAAQMD. Stack parameters (stack height and diameter, exhaust flow rate and exhaust gas temperature) for modeling the generators were based on BAAQMD default parameters for emergency generators.[13] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day (i.e. assumed 24 hours of operation). The same age sensitivity cancer risk parameters used for the construction community risk modeling (and described in *Attachment 1*) were used. The $PM_{2.5}$ concentration and non-cancerous (i.e.

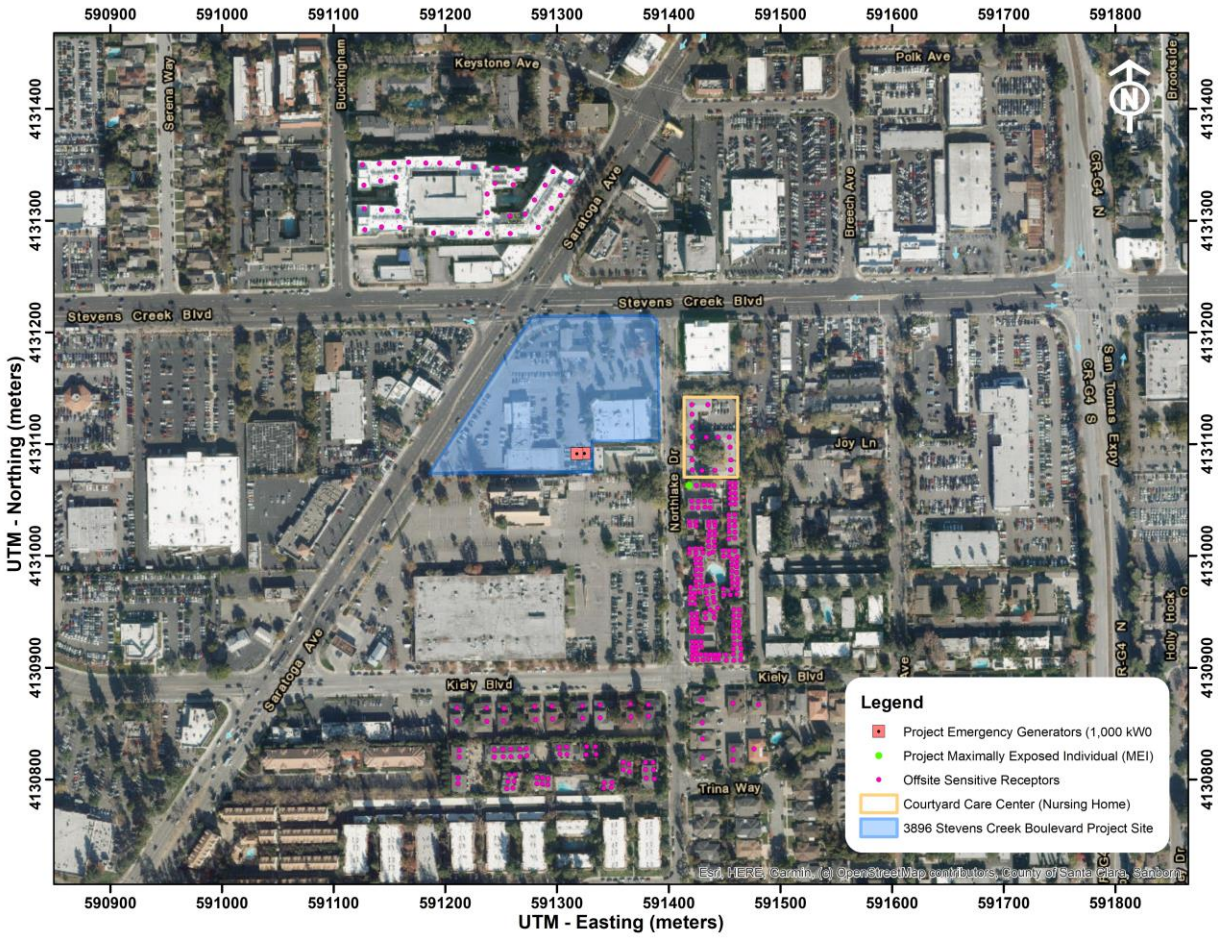
[13] The San Francisco Community Risk Reduction Plan: Technical Support Document, BAAQMD, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

Hazard Index) health risk impacts were also calculated. *Attachment 3* includes the emission calculations used for the generator modeling and the cancer risk calculations.

The maximum-modeled DPM and $PM_{2.5}$ concentrations on the second floor at the Northlake Ambassador Apartments as shown in Figure 2. The maximum annual DPM and $PM_{2.5}$ concentration was 0.0029 µg/m^3. Based on the maximum DPM concentration, the maximum residential cancer risk would be 2.1 in one million. The $PM_{2.5}$ concentration would be 0.01 µg/m^3 and maximum hazard index (HI) at this location would be less than 0.01.

Modeling was also conducted to identify the maximum impact from the proposed generators at the construction MEI. The maximum annual DPM and $PM_{2.5}$ concentration at the location of the maximum construction impact was 0.0014 µg/m^3. Based on this DPM concentration, operation of the generators would contribute a cancer risk of 0.5 in one million to the total cancer risk from project construction and operation. The $PM_{2.5}$ concentration would be 0.01 µg/m^3 and maximum hazard index (HI) at this location would be less than 0.01. These risk levels would be below the BAAQMD thresholds.

Figure 2. Project Generator Locations and Maximum TAC Impacts



Total Project Health Risks – Construction and Operation

The cumulative risk impacts from a project is the combination of construction activity and roadway operation. This project impact is computed by adding the construction cancer risk for an infant to the increased cancer risk for the project operational conditions for the roadway at the MEI over a 30-year exposure period. Note that the project MEI is identified as the sensitive receptor that is most impacted by both the project's construction and operation. Therefore, this receptor may not be the same receptor identified within the separate construction or operation dispersion models.

For this project, the sensitive receptor identified in Figure 1 as the construction MEI is also the project MEI. At this location, the MEI would be exposed to three years of construction cancer risks and 27 years of operational (includes traffic and emergency backup generators) cancer risks. The cancer risks from construction and operation of the project were summed together. Unlike, the increased maximum cancer risk, the annual $PM_{2.5}$ concentration, and HI risks are not additive but based on an annual maximum risk for the entirety of the project. With *Mitigation AQ-1 and AQ-2*, the mitigated maximum cancer risks, annual $PM_{2.5}$ concentrations, and non-cancer hazards from construction and operation activities would be below the single-source significance thresholds as seen in Table 6.

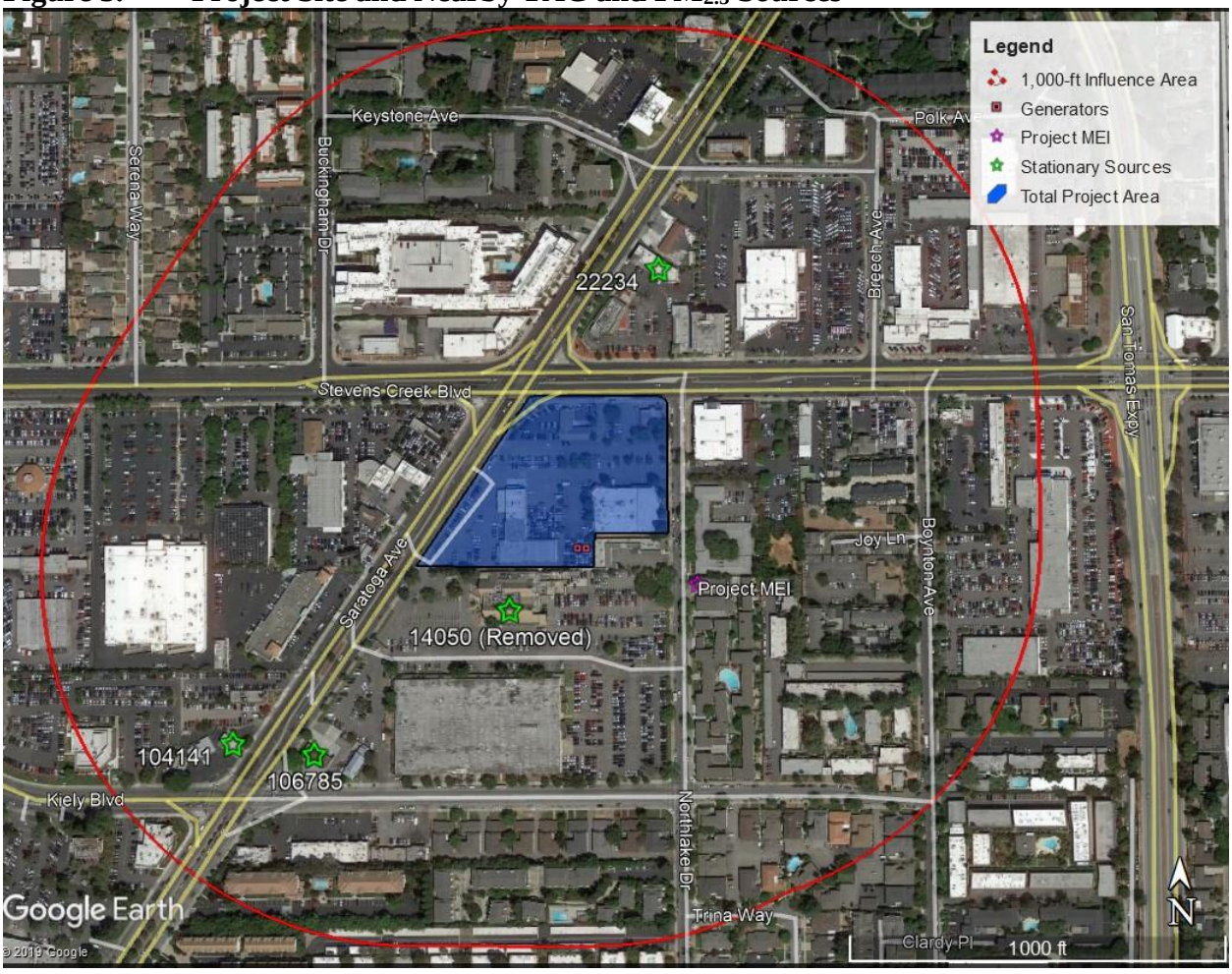
Table 6. Construction and Operation Risk Impacts at the Offsite Project MEI

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Unmitigated Project Construction (Years 2020-2022)	**84.2 (infant)**	**0.40**	0.06
Mitigated Project Construction (Years 2020-2022)	7.7 (infant)	0.07	0.01
Project Traffic (Years 2023-2049)	0.9 (child-adult)	0.05	-
Project Generators (Years 2023-2049)	0.5 (child-adult)	0.01	<0.01
Unmitigated Total/Maximum Project (Years 0-30)	**85.6**	**0.40**	0.06
Mitigated Total/Maximum Project (Years 0-30)	9.1	0.07	0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	***Yes***	*No*
Mitigated	*No*	*No*	*No*

Cumulative Community Risk Impact at the Project MEI

Cumulative community risk impacts were addressed through evaluation of TAC sources located within 1,000 feet of the construction MEI. These sources include freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicates that traffic on Stevens Creek Boulevard and Saratoga Avenue would have average daily traffic (ADT) that would be near or 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 four stationary sources with the potential to affect the project MEI. Figure 3 shows the sources affecting the project site and project MEI. Community risk impacts from these sources upon the project MEI are reported in Table 7. Details of the modeling and community risk calculations are included in *Attachment 4.*

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



Local Roadways –Saratoga Avenue & Stevens Creek Boulevard

The same BAAQMD *Roadway Screening Analysis Calculator* was used to estimate the increased cancer risk and annual $PM_{2.5}$ concentrations from Stevens Creek Boulevard and Saratoga Avenue. The average daily traffic (ADT) on these roadways were based on the peak-hour traffic volumes included in the project's traffic analysis for background plus project conditions.[14] The AM and PM peak-hour volumes were averaged and then multiplied by 10 to estimate the ADT. The estimated ADT on Saratoga Avenue was 19,800 daily vehicles and on Stevens Creek Boulevard it was 25,945 daily vehicles. Saratoga was identified as a North-South roadway with the MEI east of the roadway, while Stevens Creek Boulevard was identified as an East-West roadway with the MEI south of the roadway. Estimated increased cancer risks and annual $PM_{2.5}$ concentration values for the roadways are listed in Table 7. Note that BAAQMD has found that non-cancer hazards from all local roadways would be well below the BAAQMD thresholds, so an HI value for the roadways is not included.

Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Stationary Source Risk & Hazard Analysis Tool*. This mapping tool uses Google Earth and identifies the location of nearby stationary sources and their estimated risk and hazard impacts. In addition, *BAAQMD's Permitted Stationary Sources 2017* GIS website[15] was used to locate updated nearby permitted stationary sources. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. BAAQMD provided updated emissions data.[16] Those data 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. Note that the BAAQMD's *Risk and Hazards Emissions Screening Calculator* uses meters instead of feet to input distance.

Four stationary sources were identified. The ARCO (Plant #104141) and Chevron (Plant #106785) facilities are gas stations. MJ Coffee, Inc (Plant #22234) is a coffee roaster source, and the Garden City Café and Casino is a demolished facility.

The emissions data for all these stationary sources were provided by BAAQMD, entered into BAAQMD's *Risk and Hazard Emissions Screening Calculator*, and adjusted for distance based on BAAQMD's *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities* or *Distance Adjustment Multiplier Tool for Generic Engines* when appropriate. Concentration levels and community risk impacts from these sources upon the project are reported in Table 7.

[14] Hexagon Traffic Consultant, 2020. *360 Saratoga Avenue Commercial Development*. March.
[15] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65
[16] Correspondence with Areana Flores, BAAQMD, 9 October 2019.

Summary of Cumulative Community Risks at the Project MEI

Table 7 reports both the project and cumulative community risk impacts. Without mitigation, the project would have exceedances due to project construction activities since the total project cancer risk and $PM_{2.5}$ concentration exceeds the BAAQMD single-source thresholds. However, *Mitigation Measures AQ-2 would reduce these impacts levels below thresholds.* Cumulatively, the unmitigated and mitigated community risks do not exceed the BAAQMD cumulative-source thresholds. Therefore, the project would not contribute to a cumulative community risk impact.

Table 7. Cumulative Community Risk Impacts from Combined TAC Sources at MEI

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Project Impacts			
Unmitigated Total/Maximum Project (Years 0-30)	85.6	0.40	0.06
Mitigated Total/Maximum Project (Years 0-30)	9.1	0.07	0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold? Unmitigated	***Yes***	***Yes***	*No*
Mitigated	*No*	*No*	*No*
Cumulative Sources			
Stevens Creek Boulevard at 480 feet south, ADT 25,945	2.1	0.08	-
Saratoga Avenue at 760 feet east, ADT 19,800	1.1	0.04	-
ARCO (Plant #104141, Gas Station), MEI at 1,000 ft (300m)	0.1	-	<0.01
Chevron (Plant #106785, Gas Station), MEI at 1,000ft (300m)	0.3	-	<0.01
MJ Coffee, Inc (Plant #22234, Coffee Roaster), MEI at 800ft (240m)	<0.1	0.02	<0.01
Combined Sources Unmitigated	89.3 (infant)	0.52	<0.08
Mitigated	12.8 (infant)	0.19	<0.04
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold? Unmitigated	*No*	*No*	*No*
Mitigated	*No*	*No*	*No*

Mitigation Measure AQ-2: **Selection of equipment during construction to minimize emissions. Such equipment selection would include the following:**

Mitigation Measure AQ-2.1
The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 88-percent reduction in DPM exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:

- All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 4 engines. Exceptions could be made for equipment that meets U.S. EPA Tier 2 or 3 standards that include CARB-certified Level 3 Diesel Particulate Filters or equivalent. Equipment that is electrically powered or uses non-diesel fuels would meet this requirement.

- Install electric power during early construction phases to avoid use of diesel generators.

- Stationary construction cranes (building cranes) and manlifts shall be powered by electricity.

If any of these alternative measures are proposed, the project applicant shall include them in the construction operations plans (as stated in MM AIR-2.2) which include specifications of the equipment to be used during construction prior to the issuance of any demolition, grading, or building permits, whichever occur the earliest. All alternatives shall demonstrate that the off-road equipment used on-site to construct the project would achieve a fleet-wide average 88 percent reduction in diesel particulate matter (DPM) exhaust emissions or greater.

Mitigation Measure AQ-2.2
Prior to the issuance of any demolition, grading and/or building permits (whichever occurs first), the project applicant shall submit a construction operations plan that includes specifications of the equipment to be used during construction prior to the issuance of any demolition, grading, and/or building permits (whichever occurs earliest) to the Director of Planning or Director's designee. The plan shall be accompanied by a letter signed by an air quality specialist, verifying that the equipment included in the plan meets the standards set forth in these mitigation measures.

Effectiveness of Mitigation Measure AIR-2

CalEEMod was used to compute emissions associated with this mitigation measure, assuming that all equipment met U.S. EPA Tier 3 standards with CARB level 3 diesel particulate filters electrified equipment was used, and temporary power line was provided. With the implementation of Mitigation Measure AQ-2, risk levels would not exceed the BAAQMD significance thresholds. The computed maximum increased lifetime residential cancer risk from construction, assuming infant exposure, would be 7.7 in one million or less, the maximum annual $PM_{2.5}$ concentration would be reduced to 0.07 $\mu g/m^3$ and the HI value would be 0.01.

Greenhouse Gases

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 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

Assembly Bill 32 (AB 32), California Global Warming Solutions Act (2006)

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.

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.

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.

SB 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.

Executive Order EO-B-30-15 (2015) and SB 32 GHG Reduction Targets

In April 2015, Governor Brown signed Executive Order 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 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*. 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.

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 bikeable 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.

GHG Emissions

The U.S. EPA reported that in 2017, total gross nationwide GHG emissions were 6,457 MMT. These emissions were lower than peak levels of 7,370 MMT that were emitted in 2008. Relative to 1990 levels, these emissions were CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions[17]. 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 completed for the year 2011[18]. GHG emission in were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011.

[17] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Available at https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf accessed on Nov. 26, 2019.

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

Climate Smart San José

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

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

The California Energy Commission (CEC) updates the California Building Energy Efficiency Standards every three years, in alignment with the California Code of regulations. Title 24 Parts 6 and 11 of the California Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) address the need for regulations to improve energy efficiency and combat climate change. The 2019 CAL Green standards include substantial changes intended to increase the energy efficiency of buildings. For example, the code encourages the installation of solar and heat pump water heaters in low-rise residential buildings. The 2019 California Code went before City Council in October 2019 for approval, with an effective date of January 1, 2020. As part of this action, the City adopted a "reach code" that requires development projects to exceed the minimum Building Energy Efficiency requirements.[19] 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.

Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons (MT) per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate. Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.6 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_2e/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.6 is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels.[20] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold.

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

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

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

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

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. It was assumed that the project would use SJCE as the electricity provider. Note that it is assumed the project would use natural gas, although the City's new reach code would discourage this source of energy. Assuming the project will be operational by 2023 at the earliest, the 100% carbon-free SJCE-provided electricity assumption was applied to the energy mitigation section of the project modeling. The CalEEMod output is included in *Attachment 2*.

Service Population Emissions

The project service population efficiency rate is based on the number of future full-time office, commercial (includes retail and the restaurant land uses), and health club employees. Based on information provided by the project applicant, the health club would employ over 250 people. An employee estimate for the office and commercial land uses was not provided. Therefore, the number of workers for the office was estimated using the following rates: 1 employee per250 sf of commercial/retail and 1 employee per 175 sf of office.[21] Based on the project's proposed 308,000 sf for office use and 15,488 sf for retail use, there would be 1,760 office employees and 62 retail/commercial employees. The total future employee population would be 2,099 employees.

Construction Emissions

GHG emissions associated with construction were computed to be 2,691 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though 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.

[21] Strategic Economics. 2016. *San Jose Market Overview and Employment Lands Analysis*. January 20.

Operational 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. As shown in Table 8, annual net emissions resulting from operation of the proposed project are predicted to be 5,817 MT of CO_2e in 2023 and 5,022 MT of CO_2e in 2030. The service population emission for the year 2023 and 2030 are predicted to be 3.0 and 2.6 MT/CO_{2e}/year/service population, respectively.

To be considered significant, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in the opening and future year. Note that if the project exceeds in the opening but not the future year, then it is still considered a significant impact. Emissions from both years must be below at least one of the thresholds.

The project would exceed the annual emissions bright-line threshold of 660 MT CO_2e/year in the opening and future years. The 2023 emissions would also exceed the per capita threshold of 2.6 MT of CO_2e/year/service population, but the 2030 emissions would not exceed the per capita threshold. However, since the 2023 emissions exceed both the bright line and per capita thresholds then the project would overall exceed the bright-line thresholds for GHG. However, the impact of GHG emissions was addressed in the *Envisions San José 2040 General Plan* Draft Program EIR. The City of San José concluded that the build-out of the 2040 General Plan would have significant and unavoidable GHG emissions beyond 2020.[22] Therefore, this project would not contribute or result in a new GHG impact that has not already been identified.

Table 8. Annual Project GHG Emissions (CO_2e) in Metric Tons

Source Category	Existing Land Use in 2023	Proposed Project in 2023	Existing Land use in 2030	Proposed Project in 2030
Area	<1	<1	<1	<1
Energy Consumption	84	542	84	542
Mobile	271	4,962	225	4,121
Solid Waste Generation	25	593	25	593
Water Usage	6	106	6	106
Total (MT CO_2e)	387	6,204	341	5,363
Net Total (MT CO_2e)		**5,817**		**5,022**
Bright-Line Significance Threshold		*660 MT of CO_2e*		*660 MT of CO_2e*
Service Population Emissions (MT of CO_2e/year/service population)		**3.0**		**2.6**
Per Capita Significance Threshold (MT of CO_2e/year/service population)		*2.6 in 2023*		*2.6 in 2030*
Exceed Both?		***Yes***		***No***

[22] City of San Jose, 2011. "3.15.6 Mitigation and Avoidance Measures for Greenhouse Gas Emission Impacts", *Draft Program Environmental Impact Report for the Envisions San José 2040 General Plan*. June. Web: https://www.sanjoseca.gov/home/showdocument?id=22041

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

429 East Cotati Avenue
Cotati, California 94931

Tel: 707-794-0400 *Fax: 707-794-0405*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

July 27, 2020

Tyler Rogers
David J. Powers & Associates, Inc.
1736 Franklin Street, 3rd Floor
Oakland, California 94612

Subject: 3896 Stevens Creek Boulevard, San José, CA –
Air Quality Memorandum for the Additional Roadway Improvements

Dear Tyler:

Illingworth & Rodkin, Inc. completed a CEQA air quality, health risk, and greenhouse gas (GHG) assessment for the 3896 Stevens Creek Boulevard Project in March 2020. Since the completion of these assessments, additional roadway improvements have been proposed to address transportation-related impacts. The proposed roadway improvements are as follows:

- Removal of the southeast and northwest pork chop islands at Saratoga Avenue/Stevens Creek Boulevard
- Relocation of southeast bus stop (including the bus shelter) and relocation of the northwest bus stop (bench only)
- Removal of northeast and southwest pork chop islands at Saratoga Avenue/Kiely Boulevard

The purpose of this memo is to update the evaluation of air quality and GHG impacts related to the proposed roadway improvements and updated traffic data.

Construction Criteria Pollutants, Health Risks, and GHG Emissions

The proposed roadway improvements summarized above would require minimal construction work. Limited diesel-powered equipment would be required for these activities. Due to the large size of the proposed project, and the number of heavy-duty construction equipment required for the project, the additional construction required for the roadway improvements would be insignificant compared to the project construction considered in the March 2020 assessment and would not result in further temporary construction air quality or GHG impacts. With the implementation of Mitigation Measures AQ-1 and AQ-2, the construction health risk impacts would still be below the BAAQMD thresholds even with the currently proposed roadway improvements.

Operational Criteria Pollutants, Health Risk, and GHG Emissions

Based on the proposed roadway improvements summarized above, the traffic report was updated to reflect potential changes to the peak AM and PM traffic volumes at the 13 intersections included in the study. However, the project trip generation rates did not change. Therefore, the mobile criteria pollutant and mobile GHG emissions would be the same, and the total operational period and GHG emissions would not change from the March 2020 assessment. However, with the proposed roadway improvements, the peak traffic volumes in the updated traffic study did slightly increase from what was previously evaluated. The project's health risk impacts from traffic were reevaluated using the updated peak hour traffic volumes. The same traffic methodology used in the March 2020 assessment was used in this addendum.

Based on the updated project traffic volumes, the increased cancer risk from the project traffic would increase from 0.9 per million to 1.1 per million, while the annual $PM_{2.5}$ concentration would remain at 0.05 $\mu g/m^3$. As a result, the total mitigated/maximum project risks and hazards would be 9.7 per million (previously 9.1 per million), the maximum annual $PM_{2.5}$ concentration would remain 0.07 $\mu g/m^3$, and the maximum hazard index value would remain 0.01 (unitless value). The updated total mitigated project risks would still be below the BAAQMD single-source thresholds.

Cumulative Health Risk Impacts – Local Roadways

The background plus project average daily traffic volumes (ADT) for Saratoga Avenue and Stevens Creek Boulevard were also recalculated to predict the increased cancer risk and annual $PM_{2.5}$ concentration from both roadways. The ADT on Saratoga Avenue increased from 19,800 daily vehicles to 21,740 daily vehicles, while the ADT on Stevens Creek Boulevard increased from 25,945 daily vehicles to 29,320 daily vehicles. Based on these ADTs, the community risks from Saratoga Avenue would be 1.2 per million and 0.04 $\mu g/m^3$. On Stevens Creek Boulevard, the community risks would be 2.4 per million and 0.09 $\mu g/m^3$. As a result, the total cumulative increased cancer risk would increase by 0.4 per million and the total $PM_{2.5}$ concentration would increase by 0.01 $\mu g/m^3$ for the unmitigated and mitigated scenarios. Even with this slight increase in risks and hazards from traffic, none of the unmitigated or mitigated cumulative community risks would not exceed the BAAQMD cumulative source thresholds.

In summary, the proposed roadway improvements would not change the findings or conclusions of the air quality, health risk, and GHG assessments completed by our firm in March 2020. *Attachment 1* includes the roadway screening community risk calculations.

♦ ♦ ♦

If you have any questions or comments regarding this analysis, please do not hesitate to call.

Sincerely,

Mimi McNamara
Staff Consultant
Illingworth & Rodkin, Inc.

Attachment 1: Roadway Screening Community Risk Calculations

Project Traffic Conditions

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	East
Distance from Roadway	760 feet
Annual Average Daily Traffic (ADT)	5,780

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average: 0.010 ($\mu g/m^3$)

Cancer Risk: 0.46 (per million)

Saratoga Ave

Project Traffic Conditions March 26, 2020 Update (Received July 2020)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
0.314 (per million)	0.159 (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.51
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	South
Distance from Roadway	480 feet
Annual Average Daily Traffic (ADT)	2,430

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average: 0.007 ($\mu g/m^3$)

Cancer Risk: 0.28 (per million)

Stevens Creek Blvd

Project Traffic Conditions March 26, 2020 (Received July 2020)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
0.196 (per million)	0.099 (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.51
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	East
Distance from Roadway	25 feet
Annual Average Daily Traffic (ADT)	2,430

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

2.17 (per million)

Northlake Drive

Project Traffic Conditions March 26, 2020 (Received July 2020)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
1.49 (per million)	0.75 (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.505
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	North
Distance from Roadway	530 feet
Annual Average Daily Traffic (ADT)	1,340

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

0.16 (per million)

Kiely Boulevard

Project Traffic Conditions March 26, 2020 (Received July 2020)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
0.113 (per million)	0.057 (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.51
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Cumulative Traffic Conditions

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	South
Distance from Roadway	480 feet
Annual Average Daily Traffic (ADT)	29,320

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

3.44 (per million)

Stevens Creek Blvd

Background + Project Traffic Conditions March 26, 2020 (Received July 2020)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018

2.36

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	East
Distance from Roadway	760 feet
Annual Average Daily Traffic (ADT)	21,740

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

1.72 (per million)

Saratoga Ave

Background + Project Traffic Conditions March 26, 2020 (Received July 2020)

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018

1.18

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

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 and GHG emissions. The operational output for existing uses and 2030 project uses are also included in this attachment. Also included are any modeling assumptions.

Attachment 3 is the construction and operational health risk assessment. AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 4 includes the screening community risk calculations from sources affecting the construction MEI, as well as the emissions and calculations for the health risk evaluations of project operational impacts from the project generator.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[23] 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.[24] 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.[25] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

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

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

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

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

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

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

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*

* 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 Modeling Output

Project Name: Stevens Creek / Garden City Life Time

Project Size

0	Dwelling Units	4.8	total project acres disturbed	1250
0	s.f. residential		s.f. retail	
151,258 ~~149,794~~	s.f. office/commercial		s.f. other, specify:	
	s.f. other, specify:			
0	s.f. parking garage	0	spaces	
?	s.f. parking lot	?	spaces	

Construction Hours 7 am to 7 pm

Complete ALL Portions in Yellow

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Comments
	Demolition - By Landlord	**Start Date:**		**Total phase:**			**Overall Import/Export Volumes**
		End Date:					
0	Concrete/Industrial Saws	81	0.73	0	0	#DIV/0!	**Demolition Volume**
0	Excavators	162	0.38	0	0	#DIV/0!	Square footage of buildings to be demolished
0	Rubber-Tired Dozers	255	0.4	0	0	#DIV/0!	(or total tons to be hauled)
0	Tractors/Loaders/Backhoes	97	0.37	0	0	#DIV/0!	square feet *or*
							? Hauling volume (tons)
	Site Preperation	**Start Date:**	**2/1/2021**	**Total phase:**	**10**		Any pavement demolished and hauled? **tons**
		End Date:	**2/10/2021**				**Soil Hauling Volume**
1	Graders	174	0.41	8	10	8	
1	Rubber Tired Dozers	255	0.4	8	10	8	Export volume = **?** cubic yards?
2	Off-Highway Trucks	400	0.38	8	10	8	
2	Tractors/Loaders/Backhoes	97	0.37	8	10	8	Import volume = **?** cubic yards?
	Pile Driver for Shoring?						
						0	
	Grading / Excavation	**Start Date:**	**2/10/2021**	**Total phase:**	**210**		
		End Date:	**12/27/2021**			0	**Soil Hauling Volume**
0	Scrapers	361	0.48			0	
2	Excavators	162	0.38	8	100	4	Export volume = **8000** cubic yards?
0	Graders	174	0.41			0	Import volume = **5000** cubic yards?
0	Rubber Tired Dozers	255	0.4			0	
2	Tractors/Loaders/Backhoes	97	0.37	4	75	1	
1	Hydraulic Ram System			8	20		
~~2~~	~~Bore/Drill Rigs~~	~~205~~	~~0.5~~	~~8~~	~~20~~	~~1~~	
1	75 ton Mobile Cranes	226	0.29	8	200	8	
2	Concrete Pumps (Schwing Sp 1000)	84	0.74	8	30	1	
4	6 ton Compact Loaders	199	0.36	8	75	3	
2	10k Reachlift with Forks	89	0.2	8	200	8	
0	85 foot Manlift	62	0.31	8		0	
1	Support Trucks (1 ton pick ups)			8	200	8	
1	185 CFM Air Compressor	78	0.48	8		0	
	Trenching	**Start Date:**	**6/25/2021**	**Total phase:**	**0**		
		End Date:	**12/27/2021**				
	Tractor/Loader/Backhoe	97	0.37	0		#DIV/0!	Covered in Grading
	Excavators	162	0.38	0		#DIV/0!	Covered in Grading
	Other Equipment?						
	Building - Exterior	**Start Date:**	**7/28/2021**	**Total phase:**	**121**		**Cement Trucks? 4000 Total Round-Trips**
		End Date:	**1/18/2022**				
1	Cranes	226	0.29	8	121	8	Electric? (Y/N) _N__ Otherwise assumed diesel
2	Forklifts	89	0.2	4	121	4	Liquid Propane (LPG)? (Y/N) _N__ Otherwise Assumed diesel
4	Generator Sets	84	0.74	10	30	2	Or temporary line power? (Y/N) _N__
0	Tractors/Loaders/Backhoes	97	0.37	8		0	otherwise, assume diesel generator
1	Welders	46	0.45	8	20	1	
8	85 foot Manlift	171	0.42	8	120	8	
	Building - Interior/Architectural Coating	**Start Date:**	**8/11/2021**	**Total phase:**	**268**		
		End Date:	**8/30/2022**				
0	Air Compressors	78	0.48	0		0	
12	Aerial Lift	62	0.31	8	225	7	
2	Fork Lifts	89	0.2	4	200	3	
	Paving - By Landlord	**Start Date:**	**1/19/2022**	**Total phase:**	**25**		
		End Date:	**2/22/2022**				
0	Cement and Mortar Mixers	9	0.56	0			
1	Pavers	125	0.42	8	25	8	
2	Paving Equipment	130	0.36	8	25	8	**Asphalt? cubic yards or ____ round trips?**
2	Rollers	80	0.38	8	25	8	
1	Tractors/Loaders/Backhoes	97	0.37	8	25	8	
0	Fork Lifts	89	0.2	0			
	Other Equipment?						

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate
Modify 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

Project Name: **3896 Stevens Creen Blvd - Office/Parking Garage**

Project Size

0	Dwelling Units	4.8	total project acres disturbed	1250
0	s.f. residential	16,000	s.f. retail	<--- 15,448 sf: 10,488 sf of retail, 5,000 sf of resturant
308,000 ~~270,000~~	s.f. office/commercial		s.f. other, specify:	
0	s.f. other, specify:	Retail-Kiosk		
495,000	s.f. parking garage	1,300	spaces	
?	s.f. parking lot	?	spaces	

Complete ALL Portions in Yellow

Construction Hours 7 am to 7 pm

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Comments
	Demolition	**Start Date:**	**2/3/2020**	**Total phase:**	**60**		**Overall Import/Export Volumes**
		End Date:	**3/2/2020**				
2	Concrete/Industrial Saws	81	0.73	2	1	0.0333333	**Demolition Volume**
1	Excavators	162	0.38	8	60	8	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	255	0.4	8	60	8	(or total tons to be hauled)
1	Tractors/Loaders/Backhoes	97	0.37	8	60	8	**50,000** square feet *or*
							? Hauling volume (tons)
	Site Preperation	**Start Date:**	**3/2/2020**	**Total phase:**	**15**		Any pavement demolished and hauled? **2000 tons**
		End Date:	**3/23/2020**				**Soil Hauling Volume**
1	Graders	174	0.41	8	15	8	
1	Rubber Tired Dozers	255	0.4	8	15	8	Export volume = **?** cubic yards?
2	Tractors/Loaders/Backhoes	97	0.37	8	15	8	Import volume = **?** cubic yards?
	Grading / Excavation	**Start Date:**	**3/23/2020**	**Total phase:**	**90**		
		End Date:	**7/22/2020**				**Soil Hauling Volume**
0	Scrapers	361	0.48		0	0	
1	Excavators	162	0.38	8	90	8	Export volume = **300** cubic yards?
0	Graders	174	0.41		0	0	Import volume = **?** cubic yards?
0	Rubber Tired Dozers	255	0.4		0	0	
2	Tractors/Loaders/Backhoes	97	0.37	4	90	4	
2	Auger Drills	171	0.42	8	90	8	
2	75 ton Mobile Cranes	226	0.29	8	90	8	
2	Concrete Pumps (Schwing Sp 1000)	84	0.74	8	90	8	
4	6 ton Compact Loaders	199	0.36	8	90	8	
2	10k Reachlift with Forks	89	0.2	8	90	8	
2	85 foot Manlift	62	0.31	8	90	8	
2	Support Trucks (1 ton pick ups)			8	90	8	
2	185 CFM Air Compressor	78	0.48	8	90	8	
	Trenching	**Start Date:**	**3/23/2020**	**Total phase:**	**15**		
		End Date:	**4/10/2020**				
1	Tractor/Loader/Backhoe	97	0.37	4	15	4	
1	Excavators	162	0.38	8	15	8	
	Other Equipment?						
	Building - Exterior	**Start Date:**	**5/25/2020**	**Total phase:**	**200**		**Cement Trucks? 4000 Total Round-Trips**
		End Date:	**2/2/2021**				
1	Cranes	226	0.29	8	100	4	Electric? (Y/N) ___ Otherwise assumed diesel
2	Forklifts	89	0.2	4	160	3.2	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
4	Generator Sets	84	0.74	8	20	0.8	Or temporary line power? (Y/N) ___
2	Tractors/Loaders/Backhoes	97	0.37	8	100	4	otherwise, assume diesel generator
1	Welders	46	0.45	8	20	0.8	
2	Man-lift	171	0.42	8	160	6.4	
	Building - Interior/Architectural Coating	**Start Date:**	**11/30/2020**	**Total phase:**	**350**		
		End Date:	**3/7/2022**				
0	Air Compressors	78	0.48	8	0	0	
2	Aerial Lift	62	0.31	8	20	0.4571429	
2	Fork Lifts	89	0.2	4	300	3.4285714	
	Paving	**Start Date:**	**6/1/2021**	**Total phase:**	**154**		
		End Date:	**2/1/2022**				
0	Cement and Mortar Mixers	9	0.56	8	0	0	
1	Pavers	125	0.42	8	1	0.0519481	**Asphalt? 30 cubic yards or ___ round trips?**
2	Paving Equipment	130	0.36	8	1	0.0519481	
2	Rollers	80	0.38	8	2	0.1038961	
2	Tractors/Loaders/Backhoes	97	0.37	8	1	0.0519481	
	Other Equipment?						

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate
Modify 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	308,000	3,000	2,489	***8.08***	11.03	2.46	1.05
Reduction		*-90*			*Rev*	***1.80***	***0.77***
Reduction		*-262*					
Reduction		*-159*					
Health Club	151,258	5,099	4,379	***28.95***	32.93	20.87	26.73
Reduction		*-66*			*Rev*	***18.35***	***23.50***
Reduction		*-654*					
Reduction							
Retail	10,448	378	325	***31.11***	44.32	42.04	20.43
Reduction		*-5*			*Rev*	***29.51***	***14.34***
Reduction		*-48*					
		0					
Quality Resturant	3,500	293	251	***71.71***	89.95	94.36	72.16
Reduction		*-4*			*Rev*	***75.23***	***57.53***
Reduction		*-38*					
Reduction							
Coffee/Bagel Shop	1,500	1,132	934	***622.67***	716.00	696.00	500.00
Reduction		*-15*			*Rev*	***605.27***	***434.82***
Reduction		*-183*					
Total Gross Project Trips			8,378				

			Daily		AM Peak Hour				PM Peak Hour			
			Trip		Trip	Trips			Trip	Trips		
Land Use	**Size**		**Rate**	**Trips**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
Proposed Land Uses												
Office[1]	308,000	s.f.	9.74	3,000	1.16	307	50	357	1.15	57	297	354
Office/Fitness Center/Retail/Restaurant Internal Capture (3%)[5]				-90		-9	-2	-11		-1	-10	-11
Location-Based Vehicle Mode Share (9%)[6]				-262		-27	-4	-31		-5	-26	-31
Project-Specific Trip Reduction (6%)[7]				-159		-16	-3	-19		-3	-16	-19
Sub-Total Office				*2,489*		*255*	*41*	*296*		*48*	*245*	*293*
Fitness Center[2]	151,258	s.f.	33.71	5,099	1.31	101	97	198	3.45	298	224	522
Fitness Center/Office Internal Capture (3%)[5]				-66		-5	-1	-6		-1	-8	-9
Location-Based Vehicle Mode Share (13%)[6]				-654		-12	-13	-25		-39	-28	-67
Sub-Total Fitness Center				*4,379*		*84*	*83*	*167*		*258*	*188*	*446*
Retail[3]	10,448	s.f.	37.75	394	0.94	7	3	10	3.81	20	20	40
Retail/Office Internal Capture (3%)[5]				-5		0	0	0		0	-1	-1
Location-Based Vehicle Mode Share (13%)[6]				-51		-1	0	-1		-3	-2	-5
Pass-By Reduction (17% Daily/34% PM)[8]				-57		0	0	0		-3	-9	-12
Sub-Total Retail				*281*		*6*	*3*	*9*		*14*	*8*	*22*
Restaurant (Quality Restaurant)[4]	3,500	s.f.	83.84	293	--	--	--	--	7.80	18	9	27
Restaurant/Office Internal Capture (3%)[5]				-4		0	0	0		0	0	0
Location-Based Vehicle Mode Share (13%)[6]				-38		0	0	0		-2	-2	-4
Pass-By Reduction (44% Daily/44% PM)[8]				-110		0	0	0		-7	-3	-10
Restaurant (Coffee/Bagel Shop)[4]	1,500	s.f.	754.55	1,132	101.14	78	74	152	36.31	27	27	54
Restaurant/Office Internal Capture (3%)[5]				-15		-4	-1	-5		0	-1	-1
Location-Based Vehicle Mode Share (13%)[6]				-183		-10	-9	-19		-4	-3	-7
Sub-Total Restaurant				*1,075*		*64*	*64*	*128*		*32*	*27*	*59*
Total Gross Project Trips				***8,224***		***409***	***191***	***600***		***352***	***468***	***820***
Existing Land Uses												
Commercial/Retail[9]	44,690	s.f.		-520		-11	-5	-16		-23	-27	-50
Net Project Trips				**7,704**		**398**	**186**	**584**		**329**	**441**	**770**

Notes:
All trip rates (in trips per 1,000 s.f.) are from ITE Trip Generation Manual, 10th Edition, 2017.

1. General Office (ITE Land Use 710): average trip rates were used.
2. Health/Fitness Club (Land Use 492): Average trip rates for AM and PM peak hours were used. Daily trip rate was derived based on the ratio of daily to peak-hour rates for Recreational Community Center (Land Use 495).
3. Shopping Center (Land Use 820): average trip rates were used.
4. Quality Restaurant (Land Use 931) and Coffee/Donut Shop without Drive-Through Window (Land Use 936): average trip rates were used. It was assumed that the quality restaurant would not be open during the AM peak hours and the coffee shop would not be open during the PM peak hours.
5. A 3% office/retail internal mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 3% reduction was first applied to the smaller generator. The same number of trips were subtracted from the larger generator to account for both trip ends.
6. A 9% reduction for the office use and a 13% reduction for the fitness, retail, and restaurant uses were applied to the project based on the location-based vehicle mode share percentage outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for the Urban Low-Transit area.
7. A 6% reduction was applied based on the external trip adjustments obtained from the City's VMT evaluation tool.
8. An average 34% pass-by trip reduction was applied to the retail PM peak-hour trips based the ITE Trip Generation Handbook, 3rd Edition, for Shopping Center. An average 44% pass-by trip reduction was applied to the restaurant trips based on the Trip Generation Handbook for Quality Restaurant.
9. Peak-hour trips generated by the existing commercial/retail uses were based on the driveway counts conducted on September 24, 2019. Daily trips were estimated based on the ratio of ITE daily to peak-hour trip rates for Shopping Center (Land Use 820).

GYM CalEEMod Outputs

3896 Stevens Creek Blvd AQ/GHG - Lifetime Fitness (Construction AQ)

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	151.26	1000sqft	4.80	151,258.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Lifetime Fitness Center

Construction Phase - Projet Applicant Construction Schedule, No Demolition, used total work days per phase, rev March 2020

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list, other equipment for manlift

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list including a hydraulic ram system

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list

Trips and VMT - 4,000 total round trips of cement trucks for building construction

Demolition -

Grading - 8000 cy exported and 5000 cy imported

Vehicle Trips - Trip gens with reductions (no pass-by)

Energy Use -

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - BMPS, Tier 4 Interim, temporary power line

Stationary Sources - Emergency Generators and Fire Pumps -

Architectural Coating -

Area Coating -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	18.00	268.00
tblConstructionPhase	NumDays	230.00	121.00
tblConstructionPhase	NumDays	8.00	210.00
tblConstructionPhase	NumDays	18.00	25.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	AcresOfGrading	0.00	105.00
tblGrading	MaterialExported	0.00	8,000.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	151,260.00	151,258.00
tblLandUse	LotAcreage	3.47	4.80
tblOffRoadEquipment	HorsePower	172.00	171.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,340.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,000.00
tblVehicleTrips	ST_TR	20.87	18.35
tblVehicleTrips	SU_TR	26.73	23.50
tblVehicleTrips	WD_TR	32.93	28.95
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.8147	6.0044	4.9672	0.012	0.245	0.2342	0.4792	0.0652	0.2175	0.2827	0	1,084.22	1,084.22	0.2107	0	1,089.49
2022	0.5591	0.9167	1.3985	2.40E-03	0.0646	0.0285	0.0931	0.0163	0.0263	0.0426	0	213.3839	213.3839	0.0593	0	214.8658
Maximum	**0.8147**	**6.0044**	**4.9672**	**0.012**	**0.245**	**0.2342**	**0.4792**	**0.0652**	**0.2175**	**0.2827**	**0**	**1,084.22**	**1,084.22**	**0.2107**	**0**	**1,089.49**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4362	2.8720	2.8947	0.0120	0.1959	0.0296	0.2255	0.0474	0.0294	0.0768	0.0000	726.4279	726.4279	0.1037	0.0000	729.0198
2022	0.5346	1.0568	1.4318	2.4000e-003	0.0646	0.0343	0.0989	0.0163	0.0343	0.0506	0.0000	191.8265	191.8265	0.0529	0.0000	193.1497
Maximum	**0.5346**	**2.8720**	**2.8947**	**0.0120**	**0.1959**	**0.0343**	**0.2255**	**0.0474**	**0.0343**	**0.0768**	**0.0000**	**726.4279**	**726.4279**	**0.1037**	**0.0000**	**729.0198**

	ROG	NOx	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	**29.34**	**43.24**	**32.03**	**0.00**	**15.85**	**75.68**	**43.31**	**21.83**	**73.88**	**60.84**	**0.00**	**29.23**	**29.23**	**41.99**	**0.00**	**29.30**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-1-2021**	**4-30-2021**	0.6593	0.3455
2	**5-1-2021**	**7-31-2021**	0.7442	0.3916
3	**8-1-2021**	**10-31-2021**	3.3279	1.5733
4	**11-1-2021**	**1-31-2022**	2.4951	1.2885

5	**2-1-2022**	**4-30-2022**	0.5091	0.6114
6	**5-1-2022**	**7-31-2022**	0.4299	0.5527
7	**8-1-2022**	**9-30-2022**	0.0888	0.1141
		Highest	3.3279	1.5733

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2021	2/12/2021	5	10	
2	Grading	Grading	2/10/2021	11/30/2021	5	210	
3	Building Construction	Building Construction	7/28/2021	1/12/2022	5	121	
4	Architectural Coating	Architectural Coating	8/11/2021	8/19/2022	5	268	
5	Paving	Paving	1/19/2022	2/22/2022	5	25	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 105

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 226,887; Non-Residential Outdoor: 75,629; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Bore/Drill Rigs	2	1.00	221	0.50
Grading	Cranes	1	8.00	231	0.29
Grading	Excavators	2	4.00	158	0.38
Grading	Excavators	1	1.00	158	0.38

Grading	Forklifts	2	8.00	89	0.20
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	1.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	3.00	97	0.37
Building Construction	Aerial Lifts	0	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	4.00	89	0.20
Building Construction	Generator Sets	4	2.00	84	0.74
Building Construction	Other Construction Equipment	8	8.00	171	0.42
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Aerial Lifts	12	7.00	63	0.31
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Forklifts	2	3.00	89	0.20
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	38.00	0.00	1,625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	64.00	25.00	8,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	14	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0328	0.0000	0.0328	0.0168	0.0000	0.0168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3700e-003	0.1034	0.0516	1.1000e-004		4.7200e-003	4.7200e-003		4.3400e-003	4.3400e-003	0.0000	9.3932	9.3932	3.0400e-003	0.0000	9.4691
Total	**9.3700e-003**	**0.1034**	**0.0516**	**1.1000e-004**	**0.0328**	**4.7200e-003**	**0.0375**	**0.0168**	**4.3400e-003**	**0.0212**	**0.0000**	**9.3932**	**9.3932**	**3.0400e-003**	**0.0000**	**9.4691**

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	1.5000e-004	1.1000e-004	1.1400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3283	0.3283	1.0000e-005	0.0000	0.3285

Total	**1.5000e-004**	**1.1000e-004**	**1.1400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3283**	**0.3283**	**1.0000e-005**	**0.0000**	**0.3285**

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					0.0147	0.0000	0.0147	3.7900e-003	0.0000	3.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9300e-003	0.0335	0.0637	1.1000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.3931	9.3931	3.0400e-003	0.0000	9.4691
Total	**1.9300e-003**	**0.0335**	**0.0637**	**1.1000e-004**	**0.0147**	**1.7000e-004**	**0.0149**	**3.7900e-003**	**1.7000e-004**	**3.9600e-003**	**0.0000**	**9.3931**	**9.3931**	**3.0400e-003**	**0.0000**	**9.4691**

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	1.5000e-004	1.1000e-004	1.1400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3283	0.3283	1.0000e-005	0.0000	0.3285
Total	**1.5000e-004**	**1.1000e-004**	**1.1400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3283**	**0.3283**	**1.0000e-005**	**0.0000**	**0.3285**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0564	0.0000	0.0564	6.1200e-003	0.0000	6.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1694	1.6526	1.5642	2.7700e-003		0.0867	0.0867		0.0808	0.0808	0.0000	242.6483	242.6483	0.0694	0.0000	244.3826
Total	**0.1694**	**1.6526**	**1.5642**	**2.7700e-003**	**0.0564**	**0.0867**	**0.1431**	**6.1200e-003**	**0.0808**	**0.0869**	**0.0000**	**242.6483**	**242.6483**	**0.0694**	**0.0000**	**244.3826**

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	6.3700e-003	0.2173	0.0474	6.3000e-004	0.0138	6.8000e-004	0.0145	3.7900e-003	6.5000e-004	4.4400e-003	0.0000	61.1839	61.1839	2.7800e-003	0.0000	61.2533
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	0.0123	8.5100e-003	0.0913	2.9000e-004	0.0317	2.0000e-004	0.0318	8.4200e-003	1.8000e-004	8.6000e-003	0.0000	26.1960	26.1960	6.0000e-004	0.0000	26.2109
Total	**0.0187**	**0.2258**	**0.1386**	**9.2000e-004**	**0.0454**	**8.8000e-004**	**0.0463**	**0.0122**	**8.3000e-004**	**0.0130**	**0.0000**	**87.3800**	**87.3800**	**3.3800e-003**	**0.0000**	**87.4643**

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					0.0254	0.0000	0.0254	1.3800e-003	0.0000	1.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0393	0.8733	1.5267	2.7700e-003		3.4200e-003	3.4200e-003		3.4200e-003	3.4200e-003	0.0000	189.4258	189.4258	0.0522	0.0000	190.7297
Total	**0.0393**	**0.8733**	**1.5267**	**2.7700e-003**	**0.0254**	**3.4200e-003**	**0.0288**	**1.3800e-003**	**3.4200e-003**	**4.8000e-003**	**0.0000**	**189.4258**	**189.4258**	**0.0522**	**0.0000**	**190.7297**

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	6.3700e-003	0.2173	0.0474	6.3000e-004	0.0138	6.8000e-004	0.0145	3.7900e-003	6.5000e-004	4.4400e-003	0.0000	61.1839	61.1839	2.7800e-003	0.0000	61.2533
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	0.0123	8.5100e-003	0.0913	2.9000e-004	0.0317	2.0000e-004	0.0318	8.4200e-003	1.8000e-004	8.6000e-003	0.0000	26.1960	26.1960	6.0000e-004	0.0000	26.2109
Total	**0.0187**	**0.2258**	**0.1386**	**9.2000e-004**	**0.0454**	**8.8000e-004**	**0.0463**	**0.0122**	**8.3000e-004**	**0.0130**	**0.0000**	**87.3800**	**87.3800**	**3.3800e-003**	**0.0000**	**87.4643**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2416	2.4988	2.2206	3.5800e-003		0.1288	0.1288		0.1193	0.1193	0.0000	313.4862	313.4862	0.0924	0.0000	315.7971
Total	**0.2416**	**2.4988**	**2.2206**	**3.5800e-003**		**0.1288**	**0.1288**		**0.1193**	**0.1193**	**0.0000**	**313.4862**	**313.4862**	**0.0924**	**0.0000**	**315.7971**

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	0.0293	0.9990	0.2177	2.9000e-003	0.0667	3.1200e-003	0.0698	0.0182	2.9800e-003	0.0212	0.0000	281.2983	281.2983	0.0128	0.0000	281.6174
Vendor	4.6100e-003	0.1452	0.0386	3.8000e-004	9.2900e-003	3.2000e-004	9.6100e-003	2.6900e-003	3.1000e-004	2.9900e-003	0.0000	36.5879	36.5879	1.5900e-003	0.0000	36.6278
Worker	0.0111	7.7100e-003	0.0827	2.6000e-004	0.0287	1.8000e-004	0.0289	7.6300e-003	1.7000e-004	7.7900e-003	0.0000	23.7406	23.7406	5.4000e-004	0.0000	23.7541
Total	**0.0450**	**1.1519**	**0.3390**	**3.5400e-003**	**0.1047**	**3.6200e-003**	**0.1083**	**0.0286**	**3.4600e-003**	**0.0320**	**0.0000**	**341.6267**	**341.6267**	**0.0149**	**0.0000**	**341.9992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2600e-003	0.0497	0.0762	3.5800e-003		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	8.9168	8.9168	2.6300e-003	0.0000	8.9824
Total	**2.2600e-003**	**0.0497**	**0.0762**	**3.5800e-003**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**8.9168**	**8.9168**	**2.6300e-003**	**0.0000**	**8.9824**

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	0.0293	0.9990	0.2177	2.9000e-003	0.0667	3.1200e-003	0.0698	0.0182	2.9800e-003	0.0212	0.0000	281.2983	281.2983	0.0128	0.0000	281.6174
Vendor	4.6100e-003	0.1452	0.0386	3.8000e-004	9.2900e-003	3.2000e-004	9.6100e-003	2.6900e-003	3.1000e-004	2.9900e-003	0.0000	36.5879	36.5879	1.5900e-003	0.0000	36.6278
Worker	0.0111	7.7100e-003	0.0827	2.6000e-004	0.0287	1.8000e-004	0.0289	7.6300e-003	1.7000e-004	7.7900e-003	0.0000	23.7406	23.7406	5.4000e-004	0.0000	23.7541
Total	**0.0450**	**1.1519**	**0.3390**	**3.5400e-003**	**0.1047**	**3.6200e-003**	**0.1083**	**0.0286**	**3.4600e-003**	**0.0320**	**0.0000**	**341.6267**	**341.6267**	**0.0149**	**0.0000**	**341.9992**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.1548	0.1556	2.5000e-004		7.9300e-003	7.9300e-003		7.3400e-003	7.3400e-003	0.0000	22.1885	22.1885	6.5300e-003	0.0000	22.3518
Total	**0.0154**	**0.1548**	**0.1556**	**2.5000e-004**		**7.9300e-003**	**7.9300e-003**		**7.3400e-003**	**7.3400e-003**	**0.0000**	**22.1885**	**22.1885**	**6.5300e-003**	**0.0000**	**22.3518**

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	1.9500e-003	0.0650	0.0152	2.0000e-004	0.0519	1.9000e-004	0.0521	0.0129	1.8000e-004	0.0131	0.0000	19.6464	19.6464	8.8000e-004	0.0000	19.6685
Vendor	3.0000e-004	9.7100e-003	2.5800e-003	3.0000e-005	6.6000e-004	2.0000e-005	6.8000e-004	1.9000e-004	2.0000e-005	2.1000e-004	0.0000	2.5655	2.5655	1.1000e-004	0.0000	2.5682
Worker	7.4000e-004	4.9000e-004	5.3800e-003	2.0000e-005	2.0300e-003	1.0000e-005	2.0400e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6197	1.6197	3.0000e-005	0.0000	1.6206

Total	**2.9900e-003**	**0.0752**	**0.0231**	**2.5000e-004**	**0.0546**	**2.2000e-004**	**0.0548**	**0.0136**	**2.1000e-004**	**0.0138**	**0.0000**	**23.8317**	**23.8317**	**1.0200e-003**	**0.0000**	**23.8573**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6000e-004	3.5200e-003	5.3900e-003	2.5000e-004		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.6313	0.6313	1.8000e-004	0.0000	0.6359
Total	**1.6000e-004**	**3.5200e-003**	**5.3900e-003**	**2.5000e-004**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.6313**	**0.6313**	**1.8000e-004**	**0.0000**	**0.6359**

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	1.9500e-003	0.0650	0.0152	2.0000e-004	0.0519	1.9000e-004	0.0521	0.0129	1.8000e-004	0.0131	0.0000	19.6464	19.6464	8.8000e-004	0.0000	19.6685
Vendor	3.0000e-004	9.7100e-003	2.5800e-003	3.0000e-005	6.6000e-004	2.0000e-005	6.8000e-004	1.9000e-004	2.0000e-005	2.1000e-004	0.0000	2.5655	2.5655	1.1000e-004	0.0000	2.5682
Worker	7.4000e-004	4.9000e-004	5.3800e-003	2.0000e-005	2.0300e-003	1.0000e-005	2.0400e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6197	1.6197	3.0000e-005	0.0000	1.6206
Total	**2.9900e-003**	**0.0752**	**0.0231**	**2.5000e-004**	**0.0546**	**2.2000e-004**	**0.0548**	**0.0136**	**2.1000e-004**	**0.0138**	**0.0000**	**23.8317**	**23.8317**	**1.0200e-003**	**0.0000**	**23.8573**

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.3703	0.6367	9.7000e-004		9.4300e-003	9.4300e-003		8.6700e-003	8.6700e-003	0.0000	84.9618	84.9618	0.0275	0.0000	85.6488
Total	**0.3284**	**0.3703**	**0.6367**	**9.7000e-004**		**9.4300e-003**	**9.4300e-003**		**8.6700e-003**	**8.6700e-003**	**0.0000**	**84.9618**	**84.9618**	**0.0275**	**0.0000**	**85.6488**

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	2.0600e-003	1.4300e-003	0.0153	5.0000e-005	5.3100e-003	3.0000e-005	5.3400e-003	1.4100e-003	3.0000e-005	1.4400e-003	0.0000	4.3956	4.3956	1.0000e-004	0.0000	4.3981
Total	**2.0600e-003**	**1.4300e-003**	**0.0153**	**5.0000e-005**	**5.3100e-003**	**3.0000e-005**	**5.3400e-003**	**1.4100e-003**	**3.0000e-005**	**1.4400e-003**	**0.0000**	**4.3956**	**4.3956**	**1.0000e-004**	**0.0000**	**4.3981**

Mitigated Construction On-Site

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

Archit. Coating	0.3031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.5363	0.7340	9.7000e-004		0.0210	0.0210		0.0210	0.0210	0.0000	84.9617	84.9617	0.0275	0.0000	85.6487
Total	**0.3268**	**0.5363**	**0.7340**	**9.7000e-004**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**84.9617**	**84.9617**	**0.0275**	**0.0000**	**85.6487**

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	2.0600e-003	1.4300e-003	0.0153	5.0000e-005	5.3100e-003	3.0000e-005	5.3400e-003	1.4100e-003	3.0000e-005	1.4400e-003	0.0000	4.3956	4.3956	1.0000e-004	0.0000	4.3981
Total	**2.0600e-003**	**1.4300e-003**	**0.0153**	**5.0000e-005**	**5.3100e-003**	**3.0000e-005**	**5.3400e-003**	**1.4100e-003**	**3.0000e-005**	**1.4400e-003**	**0.0000**	**4.3956**	**4.3956**	**1.0000e-004**	**0.0000**	**4.3981**

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.5506	1.0191	1.5500e-003		0.0133	0.0133		0.0123	0.0123	0.0000	136.1039	136.1039	0.0440	0.0000	137.2044
Total	**0.5239**	**0.5506**	**1.0191**	**1.5500e-003**		**0.0133**	**0.0133**		**0.0123**	**0.0123**	**0.0000**	**136.1039**	**136.1039**	**0.0440**	**0.0000**	**137.2044**

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	3.0800e-003	2.0500e-003	0.0226	8.0000e-005	8.5100e-003	5.0000e-005	8.5600e-003	2.2600e-003	5.0000e-005	2.3100e-003	0.0000	6.7856	6.7856	1.4000e-004	0.0000	6.7892
Total	**3.0800e-003**	**2.0500e-003**	**0.0226**	**8.0000e-005**	**8.5100e-003**	**5.0000e-005**	**8.5600e-003**	**2.2600e-003**	**5.0000e-005**	**2.3100e-003**	**0.0000**	**6.7856**	**6.7856**	**1.4000e-004**	**0.0000**	**6.7892**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0379	0.8591	1.1759	1.5500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	136.1037	136.1037	0.0440	0.0000	137.2042
Total	**0.5235**	**0.8591**	**1.1759**	**1.5500e-003**		**0.0336**	**0.0336**		**0.0336**	**0.0336**	**0.0000**	**136.1037**	**136.1037**	**0.0440**	**0.0000**	**137.2042**

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	3.0800e-003	2.0500e-003	0.0226	8.0000e-005	8.5100e-003	5.0000e-005	8.5600e-003	2.2600e-003	5.0000e-005	2.3100e-003	0.0000	6.7856	6.7856	1.4000e-004	0.0000	6.7892
Total	**3.0800e-003**	**2.0500e-003**	**0.0226**	**8.0000e-005**	**8.5100e-003**	**5.0000e-005**	**8.5600e-003**	**2.2600e-003**	**5.0000e-005**	**2.3100e-003**	**0.0000**	**6.7856**	**6.7856**	**1.4000e-004**	**0.0000**	**6.7892**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0133	0.1338	0.1742	2.7000e-004		6.9800e-003	6.9800e-003		6.4200e-003	6.4200e-003	0.0000	23.2879	23.2879	7.5300e-003	0.0000	23.4762
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0133**	**0.1338**	**0.1742**	**2.7000e-004**		**6.9800e-003**	**6.9800e-003**		**6.4200e-003**	**6.4200e-003**	**0.0000**	**23.2879**	**23.2879**	**7.5300e-003**	**0.0000**	**23.4762**

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	5.4000e-004	3.6000e-004	3.9400e-003	1.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.0000e-004	0.0000	1.1863	1.1863	3.0000e-005	0.0000	1.1869

Total	**5.4000e-004**	**3.6000e-004**	**3.9400e-003**	**1.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.1863**	**1.1863**	**3.0000e-005**	**0.0000**	**1.1869**

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	4.3200e-003	0.1166	0.2009	2.7000e-004		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	23.2879	23.2879	7.5300e-003	0.0000	23.4762
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3200e-003**	**0.1166**	**0.2009**	**2.7000e-004**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**23.2879**	**23.2879**	**7.5300e-003**	**0.0000**	**23.4762**

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	5.4000e-004	3.6000e-004	3.9400e-003	1.0000e-005	1.4900e-003	1.0000e-005	1.5000e-003	4.0000e-004	1.0000e-005	4.0000e-004	0.0000	1.1863	1.1863	3.0000e-005	0.0000	1.1869
Total	**5.4000e-004**	**3.6000e-004**	**3.9400e-003**	**1.0000e-005**	**1.4900e-003**	**1.0000e-005**	**1.5000e-003**	**4.0000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.1863**	**1.1863**	**3.0000e-005**	**0.0000**	**1.1869**

3896 Stevens Creek Blvd TAC - Lifetime Fitness - Santa Clara County, Annual

3896 Stevens Creek Blvd TAC - Lifetime Fitness

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	151.26	1000sqft	4.80	151,258.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Lifetime Fitness Center

Construction Phase - Projet Applicant Construction Schedule, No Demolition, used total work days per phase, rev March 2020

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list, other equipment for manlift

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list including a hydraulic ram system

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list

Trips and VMT - 4,000 total round trips of cement trucks for building construction, TAC localized emissions 1 mile trip length

Demolition -

Grading - 8000 cy exported and 5000 cy imported

Architectural Coating -

Vehicle Trips - Trip gens with reductions (no pass-by)

Area Coating -

Energy Use -

Water And Wastewater - 100% aerobic

Solid Waste -

Construction Off-road Equipment Mitigation - BMPS, Tier 3 DPF 3, electrified equipment, temporary power line

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	18.00	268.00
tblConstructionPhase	NumDays	230.00	121.00
tblConstructionPhase	NumDays	8.00	210.00
tblConstructionPhase	NumDays	18.00	25.00
tblConstructionPhase	NumDays	5.00	10.00

tblGrading	AcresOfGrading	0.00	105.00
tblGrading	MaterialExported	0.00	8,000.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	151,260.00	151,258.00
tblLandUse	LotAcreage	3.47	4.80
tblOffRoadEquipment	HorsePower	172.00	171.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,340.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,000.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblVehicleTrips	ST_TR	20.87	18.35
tblVehicleTrips	SU_TR	26.73	23.50
tblVehicleTrips	WD_TR	32.93	28.95
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7689	5.1700	4.6203	8.2200e-003	0.1008	0.2302	0.3310	0.0261	0.2137	0.2398	0.0000	726.7093	726.7093	0.1996	0.0000	731.6990
2022	0.5546	0.8711	1.3628	2.1200e-003	3.8200e-003	0.0283	0.0321	9.70E-04	0.0261	0.0270	0.0000	186.8802	186.8802	0.0585	0.0000	188.3433
Maximum	**0.7689**	**5.1700**	**4.6203**	**8.2200e-003**	**0.1008**	**0.2302**	**0.3310**	**0.0261**	**0.2137**	**0.2398**	**0.0000**	**726.7093**	**726.7093**	**0.1996**	**0.0000**	**731.6990**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4039	2.3004	2.5477	8.2200e-003	0.0517	0.0173	0.069	8.34E-03	0.0173	0.0256	0.0000	368.9172	368.9172	0.0926	0.0000	371.2314
2022	0.5325	1.0420	1.3961	2.1200e-003	3.8200e-003	0.0104	0.0142	9.70E-04	0.0104	0.0114	0.0000	165.3228	165.3228	0.0522	0.0000	166.6272
Maximum	**0.5325**	**2.3004**	**2.5477**	**8.2200e-003**	**0.0517**	**0.0173**	**0.069**	**8.34E-03**	**0.0173**	**0.0256**	**0.0000**	**368.9172**	**368.9172**	**0.0926**	**0.0000**	**371.2314**

	ROG	NOx	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	**29.25**	**44.67**	**34.08**	**0.00**	**46.88**	**89.29**	**77.07**	**65.65**	**88.46**	**86.14**	**0.00**	**41.52**	**41.52**	**43.92**	**0.00**	**41.54**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-1-2021**	**4-30-2021**	0.6165	0.3847
2	**5-1-2021**	**7-31-2021**	0.6796	0.4015
3	**8-1-2021**	**10-31-2021**	2.8666	1.1970
4	**11-1-2021**	**1-31-2022**	2.1436	0.9788
5	**2-1-2022**	**4-30-2022**	0.5071	0.6269
6	**5-1-2022**	**7-31-2022**	0.4286	0.5560

7	**8-1-2022**	**9-30-2022**	0.0885	0.1148
		Highest	2.8666	1.1970

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/1/2021	2/12/2021	5	10	
2	Grading	Grading	2/10/2021	11/30/2021	5	210	
3	Building Construction	Building Construction	7/28/2021	1/12/2022	5	121	
4	Architectural Coating	Architectural Coating	8/11/2021	8/19/2022	5	268	
5	Paving	Paving	1/19/2022	2/22/2022	5	25	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 105

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 226,887; Non-Residential Outdoor: 75,629; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	1	8.00	78	0.48
Grading	Bore/Drill Rigs	2	1.00	221	0.50
Grading	Cranes	1	8.00	231	0.29
Grading	Excavators	2	4.00	158	0.38
Grading	Excavators	1	1.00	158	0.38
Grading	Forklifts	2	8.00	89	0.20
Grading	Graders	0	8.00	187	0.41

Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	1.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	3.00	97	0.37
Building Construction	Aerial Lifts	0	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	4.00	89	0.20
Building Construction	Generator Sets	4	2.00	84	0.74
Building Construction	Other Construction Equipment	8	8.00	171	0.42
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Aerial Lifts	12	7.00	63	0.31
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Forklifts	2	3.00	89	0.20
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	15	38.00	0.00	1,625.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	64.00	25.00	8,000.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	14	13.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0328	0.0000	0.0328	0.0168	0.0000	0.0168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3700e-003	0.1034	0.0516	1.1000e-004		4.7200e-003	4.7200e-003		4.3400e-003	4.3400e-003	0.0000	9.3932	9.3932	3.0400e-003	0.0000	9.4691
Total	**9.3700e-003**	**0.1034**	**0.0516**	**1.1000e-004**	**0.0328**	**4.7200e-003**	**0.0375**	**0.0168**	**4.3400e-003**	**0.0212**	**0.0000**	**9.3932**	**9.3932**	**3.0400e-003**	**0.0000**	**9.4691**

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	5.0000e-005	2.0000e-005	3.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0393	0.0393	0.0000	0.0000	0.0393

Total	**5.0000e-005**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0393**	**0.0393**	**0.0000**	**0.0000**	**0.0393**

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					0.0147	0.0000	0.0147	3.7900e-003	0.0000	3.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6200e-003	0.0532	0.0637	1.1000e-004		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	9.3931	9.3931	3.0400e-003	0.0000	9.4691
Total	**2.6200e-003**	**0.0532**	**0.0637**	**1.1000e-004**	**0.0147**	**3.9000e-004**	**0.0151**	**3.7900e-003**	**3.9000e-004**	**4.1800e-003**	**0.0000**	**9.3931**	**9.3931**	**3.0400e-003**	**0.0000**	**9.4691**

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	5.0000e-005	2.0000e-005	3.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0393	0.0393	0.0000	0.0000	0.0393
Total	**5.0000e-005**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0393**	**0.0393**	**0.0000**	**0.0000**	**0.0393**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0564	0.0000	0.0564	6.1200e-003	0.0000	6.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1694	1.6526	1.5642	2.7700e-003		0.0867	0.0867		0.0808	0.0808	0.0000	242.6483	242.6483	0.0694	0.0000	244.3826
Total	**0.1694**	**1.6526**	**1.5642**	**2.7700e-003**	**0.0564**	**0.0867**	**0.1431**	**6.1200e-003**	**0.0808**	**0.0869**	**0.0000**	**242.6483**	**242.6483**	**0.0694**	**0.0000**	**244.3826**

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	1.6600e-003	0.0806	0.0132	1.1000e-004	7.1000e-004	7.0000e-005	7.7000e-004	2.0000e-004	7.0000e-005	2.6000e-004	0.0000	10.4417	10.4417	1.0700e-003	0.0000	10.4683
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	4.0400e-003	1.7800e-003	0.0236	3.0000e-005	2.9700e-003	4.0000e-005	3.0100e-003	7.9000e-004	4.0000e-005	8.3000e-004	0.0000	3.1345	3.1345	1.2000e-004	0.0000	3.1376
Total	**5.7000e-003**	**0.0824**	**0.0368**	**1.4000e-004**	**3.6800e-003**	**1.1000e-004**	**3.7800e-003**	**9.9000e-004**	**1.1000e-004**	**1.0900e-003**	**0.0000**	**13.5762**	**13.5762**	**1.1900e-003**	**0.0000**	**13.6059**

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					0.0254	0.0000	0.0254	1.3800e-003	0.0000	1.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0513	1.0982	1.5267	2.7700e-003		0.0100	0.0100		0.0100	0.0100	0.0000	189.4258	189.4258	0.0522	0.0000	190.7297
Total	**0.0513**	**1.0982**	**1.5267**	**2.7700e-003**	**0.0254**	**0.0100**	**0.0354**	**1.3800e-003**	**0.0100**	**0.0114**	**0.0000**	**189.4258**	**189.4258**	**0.0522**	**0.0000**	**190.7297**

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	1.6600e-003	0.0806	0.0132	1.1000e-004	7.1000e-004	7.0000e-005	7.7000e-004	2.0000e-004	7.0000e-005	2.6000e-004	0.0000	10.4417	10.4417	1.0700e-003	0.0000	10.4683
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	4.0400e-003	1.7800e-003	0.0236	3.0000e-005	2.9700e-003	4.0000e-005	3.0100e-003	7.9000e-004	4.0000e-005	8.3000e-004	0.0000	3.1345	3.1345	1.2000e-004	0.0000	3.1376
Total	**5.7000e-003**	**0.0824**	**0.0368**	**1.4000e-004**	**3.6800e-003**	**1.1000e-004**	**3.7800e-003**	**9.9000e-004**	**1.1000e-004**	**1.0900e-003**	**0.0000**	**13.5762**	**13.5762**	**1.1900e-003**	**0.0000**	**13.6059**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2416	2.4988	2.2206	3.5800e-003		0.1288	0.1288		0.1193	0.1193	0.0000	313.4862	313.4862	0.0924	0.0000	315.7971
Total	**0.2416**	**2.4988**	**2.2206**	**3.5800e-003**		**0.1288**	**0.1288**		**0.1193**	**0.1193**	**0.0000**	**313.4862**	**313.4862**	**0.0924**	**0.0000**	**315.7971**

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	7.6200e-003	0.3707	0.0606	5.0000e-004	3.4100e-003	3.2000e-004	3.7300e-003	9.4000e-004	3.1000e-004	1.2400e-003	0.0000	48.0065	48.0065	4.9000e-003	0.0000	48.1291
Vendor	2.3800e-003	0.0898	0.0242	1.2000e-004	1.3100e-003	8.0000e-005	1.3800e-003	3.8000e-004	7.0000e-005	4.5000e-004	0.0000	11.2311	11.2311	1.0400e-003	0.0000	11.2572
Worker	3.6600e-003	1.6200e-003	0.0214	3.0000e-005	2.6900e-003	4.0000e-005	2.7200e-003	7.2000e-004	3.0000e-005	7.5000e-004	0.0000	2.8407	2.8407	1.1000e-004	0.0000	2.8435
Total	**0.0137**	**0.4621**	**0.1062**	**6.5000e-004**	**7.4100e-003**	**4.4000e-004**	**7.8300e-003**	**2.0400e-003**	**4.1000e-004**	**2.4400e-003**	**0.0000**	**62.0784**	**62.0784**	**6.0500e-003**	**0.0000**	**62.2297**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8800e-003	0.0605	0.0762	3.5800e-003		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	8.9168	8.9168	2.6300e-003	0.0000	8.9824
Total	**2.8800e-003**	**0.0605**	**0.0762**	**3.5800e-003**		**6.2000e-004**	**6.2000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**8.9168**	**8.9168**	**2.6300e-003**	**0.0000**	**8.9824**

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	7.6200e-003	0.3707	0.0606	5.0000e-004	3.4100e-003	3.2000e-004	3.7300e-003	9.4000e-004	3.1000e-004	1.2400e-003	0.0000	48.0065	48.0065	4.9000e-003	0.0000	48.1291
Vendor	2.3800e-003	0.0898	0.0242	1.2000e-004	1.3100e-003	8.0000e-005	1.3800e-003	3.8000e-004	7.0000e-005	4.5000e-004	0.0000	11.2311	11.2311	1.0400e-003	0.0000	11.2572
Worker	3.6600e-003	1.6200e-003	0.0214	3.0000e-005	2.6900e-003	4.0000e-005	2.7200e-003	7.2000e-004	3.0000e-005	7.5000e-004	0.0000	2.8407	2.8407	1.1000e-004	0.0000	2.8435
Total	**0.0137**	**0.4621**	**0.1062**	**6.5000e-004**	**7.4100e-003**	**4.4000e-004**	**7.8300e-003**	**2.0400e-003**	**4.1000e-004**	**2.4400e-003**	**0.0000**	**62.0784**	**62.0784**	**6.0500e-003**	**0.0000**	**62.2297**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.1548	0.1556	2.5000e-004		7.9300e-003	7.9300e-003		7.3400e-003	7.3400e-003	0.0000	22.1885	22.1885	6.5300e-003	0.0000	22.3518
Total	**0.0154**	**0.1548**	**0.1556**	**2.5000e-004**		**7.9300e-003**	**7.9300e-003**		**7.3400e-003**	**7.3400e-003**	**0.0000**	**22.1885**	**22.1885**	**6.5300e-003**	**0.0000**	**22.3518**

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	5.1000e-004	0.0252	4.1700e-003	3.0000e-005	2.6000e-003	2.0000e-005	2.6200e-003	6.5000e-004	2.0000e-005	6.6000e-004	0.0000	3.3636	3.3636	3.3000e-004	0.0000	3.3718
Vendor	1.6000e-004	6.1500e-003	1.6000e-003	1.0000e-005	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.7879	0.7879	7.0000e-005	0.0000	0.7897
Worker	2.4000e-004	1.0000e-004	1.3700e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1939	0.1939	1.0000e-005	0.0000	0.1941

Total	**9.1000e-004**	**0.0315**	**7.1400e-003**	**4.0000e-005**	**2.8800e-003**	**2.0000e-005**	**2.9100e-003**	**7.3000e-004**	**2.0000e-005**	**7.4000e-004**	**0.0000**	**4.3454**	**4.3454**	**4.1000e-004**	**0.0000**	**4.3555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0000e-004	4.2900e-003	5.3900e-003	2.5000e-004		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6313	0.6313	1.8000e-004	0.0000	0.6359
Total	**2.0000e-004**	**4.2900e-003**	**5.3900e-003**	**2.5000e-004**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.6313**	**0.6313**	**1.8000e-004**	**0.0000**	**0.6359**

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	5.1000e-004	0.0252	4.1700e-003	3.0000e-005	2.6000e-003	2.0000e-005	2.6200e-003	6.5000e-004	2.0000e-005	6.6000e-004	0.0000	3.3636	3.3636	3.3000e-004	0.0000	3.3718
Vendor	1.6000e-004	6.1500e-003	1.6000e-003	1.0000e-005	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.7879	0.7879	7.0000e-005	0.0000	0.7897
Worker	2.4000e-004	1.0000e-004	1.3700e-003	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1939	0.1939	1.0000e-005	0.0000	0.1941
Total	**9.1000e-004**	**0.0315**	**7.1400e-003**	**4.0000e-005**	**2.8800e-003**	**2.0000e-005**	**2.9100e-003**	**7.3000e-004**	**2.0000e-005**	**7.4000e-004**	**0.0000**	**4.3454**	**4.3454**	**4.1000e-004**	**0.0000**	**4.3555**

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0253	0.3703	0.6367	9.7000e-004		9.4300e-003	9.4300e-003		8.6700e-003	8.6700e-003	0.0000	84.9618	84.9618	0.0275	0.0000	85.6488
Total	**0.3284**	**0.3703**	**0.6367**	**9.7000e-004**		**9.4300e-003**	**9.4300e-003**		**8.6700e-003**	**8.6700e-003**	**0.0000**	**84.9618**	**84.9618**	**0.0275**	**0.0000**	**85.6488**

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	6.8000e-004	3.0000e-004	3.9600e-003	1.0000e-005	5.0000e-004	1.0000e-005	5.0000e-004	1.3000e-004	1.0000e-005	1.4000e-004	0.0000	0.5260	0.5260	2.0000e-005	0.0000	0.5265
Total	**6.8000e-004**	**3.0000e-004**	**3.9600e-003**	**1.0000e-005**	**5.0000e-004**	**1.0000e-005**	**5.0000e-004**	**1.3000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5260**	**0.5260**	**2.0000e-005**	**0.0000**	**0.5265**

Mitigated Construction On-Site

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

Archit. Coating	0.3031					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.5436	0.7340	9.7000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	84.9617	84.9617	0.0275	0.0000	85.6487
Total	**0.3269**	**0.5436**	**0.7340**	**9.7000e-004**		**5.7100e-003**	**5.7100e-003**		**5.7100e-003**	**5.7100e-003**	**0.0000**	**84.9617**	**84.9617**	**0.0275**	**0.0000**	**85.6487**

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	6.8000e-004	3.0000e-004	3.9600e-003	1.0000e-005	5.0000e-004	1.0000e-005	5.0000e-004	1.3000e-004	1.0000e-005	1.4000e-004	0.0000	0.5260	0.5260	2.0000e-005	0.0000	0.5265
Total	**6.8000e-004**	**3.0000e-004**	**3.9600e-003**	**1.0000e-005**	**5.0000e-004**	**1.0000e-005**	**5.0000e-004**	**1.3000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5260**	**0.5260**	**2.0000e-005**	**0.0000**	**0.5265**

3.5 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.5506	1.0191	1.5500e-003		0.0133	0.0133		0.0123	0.0123	0.0000	136.1039	136.1039	0.0440	0.0000	137.2044
Total	**0.5239**	**0.5506**	**1.0191**	**1.5500e-003**		**0.0133**	**0.0133**		**0.0123**	**0.0123**	**0.0000**	**136.1039**	**136.1039**	**0.0440**	**0.0000**	**137.2044**

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	1.0000e-003	4.2000e-004	5.7400e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.8125	0.8125	3.0000e-005	0.0000	0.8132
Total	**1.0000e-003**	**4.2000e-004**	**5.7400e-003**	**1.0000e-005**	**8.0000e-004**	**1.0000e-005**	**8.1000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.8125**	**0.8125**	**3.0000e-005**	**0.0000**	**0.8132**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0381	0.8708	1.1759	1.5500e-003		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	136.1037	136.1037	0.0440	0.0000	137.2042
Total	**0.5237**	**0.8708**	**1.1759**	**1.5500e-003**		**9.1500e-003**	**9.1500e-003**		**9.1500e-003**	**9.1500e-003**	**0.0000**	**136.1037**	**136.1037**	**0.0440**	**0.0000**	**137.2042**

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	1.0000e-003	4.2000e-004	5.7400e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.8125	0.8125	3.0000e-005	0.0000	0.8132
Total	**1.0000e-003**	**4.2000e-004**	**5.7400e-003**	**1.0000e-005**	**8.0000e-004**	**1.0000e-005**	**8.1000e-004**	**2.1000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.8125**	**0.8125**	**3.0000e-005**	**0.0000**	**0.8132**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0133	0.1338	0.1742	2.7000e-004		6.9800e-003	6.9800e-003		6.4200e-003	6.4200e-003	0.0000	23.2879	23.2879	7.5300e-003	0.0000	23.4762
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0133**	**0.1338**	**0.1742**	**2.7000e-004**		**6.9800e-003**	**6.9800e-003**		**6.4200e-003**	**6.4200e-003**	**0.0000**	**23.2879**	**23.2879**	**7.5300e-003**	**0.0000**	**23.4762**

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	1.7000e-004	7.0000e-005	1.0000e-003	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1420	0.1420	1.0000e-005	0.0000	0.1422

Total	**1.7000e-004**	**7.0000e-005**	**1.0000e-003**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1420**	**0.1420**	**1.0000e-005**	**0.0000**	**0.1422**

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	6.5200e-003	0.1349	0.2009	2.7000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	23.2879	23.2879	7.5300e-003	0.0000	23.4762
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5200e-003**	**0.1349**	**0.2009**	**2.7000e-004**		**1.1700e-003**	**1.1700e-003**		**1.1700e-003**	**1.1700e-003**	**0.0000**	**23.2879**	**23.2879**	**7.5300e-003**	**0.0000**	**23.4762**

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	1.7000e-004	7.0000e-005	1.0000e-003	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1420	0.1420	1.0000e-005	0.0000	0.1422
Total	**1.7000e-004**	**7.0000e-005**	**1.0000e-003**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1420**	**0.1420**	**1.0000e-005**	**0.0000**	**0.1422**

Office CalEEMod Oupts

3896 Stevens Creek Blvd AQ/GHG - Office - Santa Clara County, Annual

3896 Stevens Creek Blvd AQ/GHG - Office (Construction AQ)

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	308.00	1000sqft	4.80	308,000.00	0
Enclosed Parking with Elevator	1,300.00	Space	0.00	495,000.00	0
Fast Food Restaurant w/o Drive Thru	1.50	1000sqft	0.00	1,500.00	0
Quality Restaurant	3.50	1000sqft	0.00	3,500.00	0
Strip Mall	10.49	1000sqft	0.00	10,488.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Office (308,000 sf), retail (10,488 -traffic), resturant (quality & fast-food to match with traffic) and 1,300 parking spaces (495,000 sf) on 4.8-acres

Construction Phase - Projet Applicant Construction Schedule, used total work days per phase

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list, other equipment for man lift

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list including two bore/drill rigs to account for auger drilling, other equipment for manlift

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list

Trips and VMT - 227 + 198 = 425 hauling demo trips, 4,000 total round trips of cement trucks for building construction, 30 cy of asphalt for paving, TAC trip length of 1 mile

Demolition - 50,000 sqft of building demo

Grading - 300 cubic yards of export for grading

Vehicle Trips - Trip gens with reductions (no pass-by)

Energy Use -

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - BMPs, Tier 4 Interim, temporary power line

Stationary Sources - Emergency Generators and Fire Pumps - 2x 1,000 kW generators, estimating approximtely 1340 HP

Architectural Coating -

Area Coating -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	18.00	350.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	8.00	90.00
tblConstructionPhase	NumDays	18.00	154.00
tblConstructionPhase	NumDays	5.00	15.00
tblGrading	AcresOfGrading	0.00	5.63
tblGrading	MaterialExported	0.00	300.00

tblLandUse	LandUseSquareFeet	520,000.00	495,000.00
tblLandUse	LandUseSquareFeet	10,490.00	10,488.00
tblLandUse	LotAcreage	7.07	4.80
tblLandUse	LotAcreage	11.70	0.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	0.24	0.00
tblOffRoadEquipment	HorsePower	97.00	199.00
tblOffRoadEquipment	HorsePower	221.00	171.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	172.00	62.00
tblOffRoadEquipment	HorsePower	172.00	171.00
tblOffRoadEquipment	LoadFactor	0.37	0.36
tblOffRoadEquipment	LoadFactor	0.50	0.42
tblOffRoadEquipment	LoadFactor	0.42	0.31
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	0.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,340.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	227.00	425.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	696.00	605.27
tblVehicleTrips	ST_TR	2.46	1.80
tblVehicleTrips	ST_TR	94.36	75.23
tblVehicleTrips	ST_TR	42.04	29.51
tblVehicleTrips	SU_TR	500.00	434.82
tblVehicleTrips	SU_TR	1.05	0.77
tblVehicleTrips	SU_TR	72.16	57.53
tblVehicleTrips	SU_TR	20.43	14.34
tblVehicleTrips	WD_TR	716.00	622.67
tblVehicleTrips	WD_TR	11.03	8.08

tblVehicleTrips	WD_TR	89.95	71.71
tblVehicleTrips	WD_TR	44.32	31.11
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

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					
2020	0.7111	6.5715	4.5502	0.014	0.4387	0.229	0.6677	0.1275	0.2145	0.342	0	1,275.92	1,275.92	0.1768	0	1,280.34
2021	1.4849	1.3086	1.3054	3.80E-03	0.1983	0.0466	0.2448	0.0525	0.044	0.0965	0	347.8262	347.8262	0.0339	0	348.6731

2022	0.3483	0.0833	0.1421	2.90E-04	0.016	4.77E-03	0.0208	4.25E-03	4.60E-03	8.85E-03	0	25.9553	25.9553	2.40E-03	0	26.0152
Maximum	**1.4849**	**6.5715**	**4.5502**	**0.014**	**0.4387**	**0.229**	**0.6677**	**0.1275**	**0.2145**	**0.342**	**0**	**1,275.92**	**1,275.92**	**0.1768**	**0**	**1,280.34**

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					
2020	0.3605	3.8247	4.0148	0.0140	0.3965	0.0179	0.4145	0.1048	0.0174	0.1222	0.0000	1,106.8969	1,106.8969	0.1281	0.0000	1,110.0993
2021	1.4176	0.9254	1.1439	3.8000e-003	0.1983	4.8100e-003	0.2031	0.0525	4.6900e-003	0.0571	0.0000	319.1312	319.1312	0.0262	0.0000	319.7856
2022	0.3413	0.0645	0.1444	2.9000e-004	0.0160	6.1000e-004	0.0166	4.2500e-003	6.0000e-004	4.8500e-003	0.0000	25.9553	25.9553	2.4000e-003	0.0000	26.0152
Maximum	**1.4176**	**3.8247**	**4.0148**	**0.0140**	**0.3965**	**0.0179**	**0.4145**	**0.1048**	**0.0174**	**0.1222**	**0.0000**	**1,106.8969**	**1,106.8969**	**0.1281**	**0.0000**	**1,110.0993**

	ROG	NOx	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	**16.70**	**39.54**	**11.58**	**0.00**	**6.46**	**91.67**	**32.05**	**12.33**	**91.36**	**58.82**	**0.00**	**11.98**	**11.98**	**26.46**	**0.00**	**12.03**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-3-2020**	**5-2-2020**	1.6153	0.7113
2	**5-3-2020**	**8-2-2020**	2.8415	1.5510
3	**8-3-2020**	**11-2-2020**	1.5437	1.0349
4	**11-3-2020**	**2-2-2021**	1.8193	1.3096
5	**2-3-2021**	**5-2-2021**	0.7956	0.6491
6	**5-3-2021**	**8-2-2021**	0.4915	0.4444
7	**8-3-2021**	**11-2-2021**	0.5132	0.4604
8	**11-3-2021**	**2-2-2022**	0.4867	0.4435
9	**2-3-2022**	**5-2-2022**	0.2757	0.2593
		Highest	2.8415	1.5510

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	2/3/2020	4/24/2020	5	60	
2	Site Preparation	Site Preparation	3/2/2020	3/20/2020	5	15	
3	Grading	Grading	3/23/2020	7/24/2020	5	90	
4	Trenching	Trenching	3/23/2020	4/10/2020	5	15	
5	Building Construction	Building Construction	5/25/2020	2/26/2021	5	200	
6	Architectural Coating	Architectural Coating	11/30/2020	4/1/2022	5	350	
7	Paving	Paving	6/1/2021	12/31/2021	5	154	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 5.63

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 485,232; Non-Residential Outdoor: 161,744; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	1.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	171	0.42
Grading	Cranes	2	8.00	226	0.29

Grading	Excavators	1	8.00	158	0.38
Grading	Forklifts	2	8.00	89	0.20
Grading	Graders	0	0.00	187	0.41
Grading	Other Construction Equipment	2	8.00	62	0.31
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	8.00	199	0.36
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Aerial Lifts	0	6.40	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	3.20	89	0.20
Building Construction	Generator Sets	4	1.00	84	0.74
Building Construction	Other Construction Equipment	2	6.40	171	0.42
Building Construction	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Aerial Lifts	2	1.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	2	3.40	89	0.20
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Paving	Pavers	1	1.00	130	0.42
Paving	Paving Equipment	2	1.00	132	0.36
Paving	Rollers	2	1.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	1.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	425.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Site Preparation	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	19	48.00	0.00	30.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	312.00	134.00	8,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	5	62.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					0.0246	0.0000	0.0246	3.7300e-003	0.0000	3.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0492	0.5002	0.3180	5.5000e-004		0.0256	0.0256		0.0237	0.0237	0.0000	48.3456	48.3456	0.0146	0.0000	48.7103
Total	**0.0492**	**0.5002**	**0.3180**	**5.5000e-004**	**0.0246**	**0.0256**	**0.0502**	**3.7300e-003**	**0.0237**	**0.0274**	**0.0000**	**48.3456**	**48.3456**	**0.0146**	**0.0000**	**48.7103**

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	1.7700e-003	0.0617	0.0126	1.7000e-004	3.6000e-003	2.0000e-004	3.8000e-003	9.9000e-004	1.9000e-004	1.1800e-003	0.0000	16.2075	16.2075	7.4000e-004	0.0000	16.2261
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	1.3000e-003	9.3000e-004	9.7600e-003	3.0000e-005	3.0900e-003	2.0000e-005	3.1100e-003	8.2000e-004	2.0000e-005	8.4000e-004	0.0000	2.6526	2.6526	7.0000e-005	0.0000	2.6542
Total	**3.0700e-003**	**0.0626**	**0.0224**	**2.0000e-004**	**6.6900e-003**	**2.2000e-004**	**6.9100e-003**	**1.8100e-003**	**2.1000e-004**	**2.0200e-003**	**0.0000**	**18.8601**	**18.8601**	**8.1000e-004**	**0.0000**	**18.8803**

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					0.0111	0.0000	0.0111	8.4000e-004	0.0000	8.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0400e-003	0.1931	0.3527	5.5000e-004		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	48.3455	48.3455	0.0146	0.0000	48.7102
Total	**9.0400e-003**	**0.1931**	**0.3527**	**5.5000e-004**	**0.0111**	**8.9000e-004**	**0.0120**	**8.4000e-004**	**8.9000e-004**	**1.7300e-003**	**0.0000**	**48.3455**	**48.3455**	**0.0146**	**0.0000**	**48.7102**

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	1.7700e-003	0.0617	0.0126	1.7000e-004	3.6000e-003	2.0000e-004	3.8000e-003	9.9000e-004	1.9000e-004	1.1800e-003	0.0000	16.2075	16.2075	7.4000e-004	0.0000	16.2261
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	1.3000e-003	9.3000e-004	9.7600e-003	3.0000e-005	3.0900e-003	2.0000e-005	3.1100e-003	8.2000e-004	2.0000e-005	8.4000e-004	0.0000	2.6526	2.6526	7.0000e-005	0.0000	2.6542
Total	**3.0700e-003**	**0.0626**	**0.0224**	**2.0000e-004**	**6.6900e-003**	**2.2000e-004**	**6.9100e-003**	**1.8100e-003**	**2.1000e-004**	**2.0200e-003**	**0.0000**	**18.8601**	**18.8601**	**8.1000e-004**	**0.0000**	**18.8803**

3.3 Site Preparation - 2020

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1640	0.0788	1.6000e-004		7.6800e-003	7.6800e-003		7.0600e-003	7.0600e-003	0.0000	14.0949	14.0949	4.5600e-003	0.0000	14.2089
Total	**0.0148**	**0.1640**	**0.0788**	**1.6000e-004**	**0.0491**	**7.6800e-003**	**0.0568**	**0.0253**	**7.0600e-003**	**0.0323**	**0.0000**	**14.0949**	**14.0949**	**4.5600e-003**	**0.0000**	**14.2089**

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	2.5000e-004	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5101	0.5101	1.0000e-005	0.0000	0.5104
Total	**2.5000e-004**	**1.8000e-004**	**1.8800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5101**	**0.5101**	**1.0000e-005**	**0.0000**	**0.5104**

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					0.0221	0.0000	0.0221	5.6800e-003	0.0000	5.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0503	0.0955	1.6000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	14.0949	14.0949	4.5600e-003	0.0000	14.2089
Total	**2.9000e-003**	**0.0503**	**0.0955**	**1.6000e-004**	**0.0221**	**2.6000e-004**	**0.0224**	**5.6800e-003**	**2.6000e-004**	**5.9400e-003**	**0.0000**	**14.0949**	**14.0949**	**4.5600e-003**	**0.0000**	**14.2089**

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	2.5000e-004	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5101	0.5101	1.0000e-005	0.0000	0.5104
Total	**2.5000e-004**	**1.8000e-004**	**1.8800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5101**	**0.5101**	**1.0000e-005**	**0.0000**	**0.5104**

3.4 Grading - 2020

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					2.9900e-003	0.0000	2.9900e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2274	2.2961	1.8249	3.7800e-003		0.1121	0.1121		0.1057	0.1057	0.0000	330.4754	330.4754	0.0859	0.0000	332.6238
Total	**0.2274**	**2.2961**	**1.8249**	**3.7800e-003**	**2.9900e-003**	**0.1121**	**0.1151**	**3.2000e-004**	**0.1057**	**0.1060**	**0.0000**	**330.4754**	**330.4754**	**0.0859**	**0.0000**	**332.6238**

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	1.2000e-004	4.3500e-003	8.9000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.7000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.1441	1.1441	5.0000e-005	0.0000	1.1454
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	7.1700e-003	5.1600e-003	0.0541	1.6000e-004	0.0171	1.1000e-004	0.0172	4.5600e-003	1.0000e-004	4.6600e-003	0.0000	14.6912	14.6912	3.6000e-004	0.0000	14.7002
Total	**7.2900e-003**	**9.5100e-003**	**0.0550**	**1.7000e-004**	**0.0174**	**1.2000e-004**	**0.0175**	**4.6300e-003**	**1.1000e-004**	**4.7400e-003**	**0.0000**	**15.8353**	**15.8353**	**4.1000e-004**	**0.0000**	**15.8456**

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					1.3400e-003	0.0000	1.3400e-003	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0515	1.1007	1.9843	3.7800e-003		4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003	0.0000	272.7699	272.7699	0.0673	0.0000	274.4517
Total	**0.0515**	**1.1007**	**1.9843**	**3.7800e-003**	**1.3400e-003**	**4.8300e-003**	**6.1700e-003**	**7.0000e-005**	**4.8300e-003**	**4.9000e-003**	**0.0000**	**272.7699**	**272.7699**	**0.0673**	**0.0000**	**274.4517**

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	1.2000e-004	4.3500e-003	8.9000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.7000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.1441	1.1441	5.0000e-005	0.0000	1.1454
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	7.1700e-003	5.1600e-003	0.0541	1.6000e-004	0.0171	1.1000e-004	0.0172	4.5600e-003	1.0000e-004	4.6600e-003	0.0000	14.6912	14.6912	3.6000e-004	0.0000	14.7002
Total	**7.2900e-003**	**9.5100e-003**	**0.0550**	**1.7000e-004**	**0.0174**	**1.2000e-004**	**0.0175**	**4.6300e-003**	**1.1000e-004**	**4.7400e-003**	**0.0000**	**15.8353**	**15.8353**	**4.1000e-004**	**0.0000**	**15.8456**

3.5 Trenching - 2020

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	2.6200e-003	0.0260	0.0331	5.0000e-005		1.3800e-003	1.3800e-003		1.2700e-003	1.2700e-003	0.0000	4.4260	4.4260	1.4300e-003	0.0000	4.4617
Total	**2.6200e-003**	**0.0260**	**0.0331**	**5.0000e-005**		**1.3800e-003**	**1.3800e-003**		**1.2700e-003**	**1.2700e-003**	**0.0000**	**4.4260**	**4.4260**	**1.4300e-003**	**0.0000**	**4.4617**

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	1.2000e-004	9.0000e-005	9.4000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2551	0.2551	1.0000e-005	0.0000	0.2552
Total	**1.2000e-004**	**9.0000e-005**	**9.4000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2551**	**0.2551**	**1.0000e-005**	**0.0000**	**0.2552**

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	7.4000e-004	0.0222	0.0382	5.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.4259	4.4259	1.4300e-003	0.0000	4.4617
Total	**7.4000e-004**	**0.0222**	**0.0382**	**5.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**4.4259**	**4.4259**	**1.4300e-003**	**0.0000**	**4.4617**

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	1.2000e-004	9.0000e-005	9.4000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2551	0.2551	1.0000e-005	0.0000	0.2552
Total	**1.2000e-004**	**9.0000e-005**	**9.4000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2551**	**0.2551**	**1.0000e-005**	**0.0000**	**0.2552**

3.6 Building Construction - 2020

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	0.1256	1.2806	1.0265	1.6400e-003		0.0692	0.0692		0.0644	0.0644	0.0000	143.4170	143.4170	0.0401	0.0000	144.4184
Total	**0.1256**	**1.2806**	**1.0265**	**1.6400e-003**		**0.0692**	**0.0692**		**0.0644**	**0.0644**	**0.0000**	**143.4170**	**143.4170**	**0.0401**	**0.0000**	**144.4184**

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	0.0264	0.9228	0.1890	2.5100e-003	0.0643	3.0000e-003	0.0673	0.0174	2.8700e-003	0.0203	0.0000	242.5411	242.5411	0.0111	0.0000	242.8185
Vendor	0.0422	1.2130	0.3231	2.9100e-003	0.0701	6.0100e-003	0.0761	0.0203	5.7500e-003	0.0260	0.0000	278.5150	278.5150	0.0128	0.0000	278.8343
Worker	0.0824	0.0592	0.6208	1.8700e-003	0.1967	1.2700e-003	0.1980	0.0523	1.1700e-003	0.0535	0.0000	168.7043	168.7043	4.1400e-003	0.0000	168.8077
Total	**0.1510**	**2.1950**	**1.1328**	**7.2900e-003**	**0.3311**	**0.0103**	**0.3414**	**0.0900**	**9.7900e-003**	**0.0998**	**0.0000**	**689.7604**	**689.7604**	**0.0280**	**0.0000**	**690.4606**

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	8.1700e-003	0.1669	0.2749	1.6400e-003		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	32.1031	32.1031	0.0101	0.0000	32.3545
Total	**8.1700e-003**	**0.1669**	**0.2749**	**1.6400e-003**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**32.1031**	**32.1031**	**0.0101**	**0.0000**	**32.3545**

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	0.0264	0.9228	0.1890	2.5100e-003	0.0643	3.0000e-003	0.0673	0.0174	2.8700e-003	0.0203	0.0000	242.5411	242.5411	0.0111	0.0000	242.8185
Vendor	0.0422	1.2130	0.3231	2.9100e-003	0.0701	6.0100e-003	0.0761	0.0203	5.7500e-003	0.0260	0.0000	278.5150	278.5150	0.0128	0.0000	278.8343
Worker	0.0824	0.0592	0.6208	1.8700e-003	0.1967	1.2700e-003	0.1980	0.0523	1.1700e-003	0.0535	0.0000	168.7043	168.7043	4.1400e-003	0.0000	168.8077
Total	**0.1510**	**2.1950**	**1.1328**	**7.2900e-003**	**0.3311**	**0.0103**	**0.3414**	**0.0900**	**9.7900e-003**	**0.0998**	**0.0000**	**689.7604**	**689.7604**	**0.0280**	**0.0000**	**690.4606**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0283	0.2871	0.2602	4.2000e-004		0.0151	0.0151		0.0140	0.0140	0.0000	36.9755	36.9755	0.0103	0.0000	37.2326
Total	**0.0283**	**0.2871**	**0.2602**	**4.2000e-004**		**0.0151**	**0.0151**		**0.0140**	**0.0140**	**0.0000**	**36.9755**	**36.9755**	**0.0103**	**0.0000**	**37.2326**

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	6.4300e-003	0.2193	0.0478	6.4000e-004	0.0543	6.8000e-004	0.0550	0.0137	6.5000e-004	0.0144	0.0000	61.7487	61.7487	2.8000e-003	0.0000	61.8188
Vendor	8.9600e-003	0.2823	0.0751	7.4000e-004	0.0181	6.3000e-004	0.0187	5.2200e-003	6.0000e-004	5.8200e-003	0.0000	71.1554	71.1554	3.1000e-003	0.0000	71.2329
Worker	0.0197	0.0136	0.1463	4.6000e-004	0.0507	3.2000e-004	0.0511	0.0135	2.9000e-004	0.0138	0.0000	41.9924	41.9924	9.5000e-004	0.0000	42.0163
Total	**0.0351**	**0.5152**	**0.2692**	**1.8400e-003**	**0.1231**	**1.6300e-003**	**0.1247**	**0.0324**	**1.5400e-003**	**0.0340**	**0.0000**	**174.8965**	**174.8965**	**6.8500e-003**	**0.0000**	**175.0679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1100e-003	0.0430	0.0709	4.2000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	8.2806	8.2806	2.5800e-003	0.0000	8.3452

Total	**2.1100e-003**	**0.0430**	**0.0709**	**4.2000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**8.2806**	**8.2806**	**2.5800e-003**	**0.0000**	**8.3452**

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	6.4300e-003	0.2193	0.0478	6.4000e-004	0.0543	6.8000e-004	0.0550	0.0137	6.5000e-004	0.0144	0.0000	61.7487	61.7487	2.8000e-003	0.0000	61.8188
Vendor	8.9600e-003	0.2823	0.0751	7.4000e-004	0.0181	6.3000e-004	0.0187	5.2200e-003	6.0000e-004	5.8200e-003	0.0000	71.1554	71.1554	3.1000e-003	0.0000	71.2329
Worker	0.0197	0.0136	0.1463	4.6000e-004	0.0507	3.2000e-004	0.0511	0.0135	2.9000e-004	0.0138	0.0000	41.9924	41.9924	9.5000e-004	0.0000	42.0163
Total	**0.0351**	**0.5152**	**0.2692**	**1.8400e-003**	**0.1231**	**1.6300e-003**	**0.1247**	**0.0324**	**1.5400e-003**	**0.0340**	**0.0000**	**174.8965**	**174.8965**	**6.8500e-003**	**0.0000**	**175.0679**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4900e-003	0.0354	0.0373	6.0000e-005		2.3600e-003	2.3600e-003		2.2800e-003	2.2800e-003	0.0000	4.8763	4.8763	8.2000e-004	0.0000	4.8968
Total	**0.1272**	**0.0354**	**0.0373**	**6.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.2800e-003**	**2.2800e-003**	**0.0000**	**4.8763**	**4.8763**	**8.2000e-004**	**0.0000**	**4.8968**

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	2.4700e-003	1.7800e-003	0.0186	6.0000e-005	5.9000e-003	4.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6000e-003	0.0000	5.0603	5.0603	1.2000e-004	0.0000	5.0634
Total	**2.4700e-003**	**1.7800e-003**	**0.0186**	**6.0000e-005**	**5.9000e-003**	**4.0000e-005**	**5.9400e-003**	**1.5700e-003**	**4.0000e-005**	**1.6000e-003**	**0.0000**	**5.0603**	**5.0603**	**1.2000e-004**	**0.0000**	**5.0634**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0224	0.0377	6.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	4.8763	4.8763	8.2000e-004	0.0000	4.8968
Total	**0.1239**	**0.0224**	**0.0377**	**6.0000e-005**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**4.8763**	**4.8763**	**8.2000e-004**	**0.0000**	**4.8968**

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	2.4700e-003	1.7800e-003	0.0186	6.0000e-005	5.9000e-003	4.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6000e-003	0.0000	5.0603	5.0603	1.2000e-004	0.0000	5.0634
Total	**2.4700e-003**	**1.7800e-003**	**0.0186**	**6.0000e-005**	**5.9000e-003**	**4.0000e-005**	**5.9400e-003**	**1.5700e-003**	**4.0000e-005**	**1.6000e-003**	**0.0000**	**5.0603**	**5.0603**	**1.2000e-004**	**0.0000**	**5.0634**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0441	0.3496	0.4024	6.1000e-004		0.0219	0.0219		0.0212	0.0212	0.0000	53.0293	53.0293	8.6600e-003	0.0000	53.2458
Total	**1.3790**	**0.3496**	**0.4024**	**6.1000e-004**		**0.0219**	**0.0219**		**0.0212**	**0.0212**	**0.0000**	**53.0293**	**53.0293**	**8.6600e-003**	**0.0000**	**53.2458**

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	0.0249	0.0173	0.1851	5.9000e-004	0.0642	4.0000e-004	0.0646	0.0171	3.7000e-004	0.0174	0.0000	53.1208	53.1208	1.2100e-003	0.0000	53.1510
Total	**0.0249**	**0.0173**	**0.1851**	**5.9000e-004**	**0.0642**	**4.0000e-004**	**0.0646**	**0.0171**	**3.7000e-004**	**0.0174**	**0.0000**	**53.1208**	**53.1208**	**1.2100e-003**	**0.0000**	**53.1510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.2436	0.4096	6.1000e-004		2.0500e-003	2.0500e-003		2.0500e-003	2.0500e-003	0.0000	53.0292	53.0292	8.6600e-003	0.0000	53.2457
Total	**1.3471**	**0.2436**	**0.4096**	**6.1000e-004**		**2.0500e-003**	**2.0500e-003**		**2.0500e-003**	**2.0500e-003**	**0.0000**	**53.0292**	**53.0292**	**8.6600e-003**	**0.0000**	**53.2457**

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	0.0249	0.0173	0.1851	5.9000e-004	0.0642	4.0000e-004	0.0646	0.0171	3.7000e-004	0.0174	0.0000	53.1208	53.1208	1.2100e-003	0.0000	53.1510
Total	**0.0249**	**0.0173**	**0.1851**	**5.9000e-004**	**0.0642**	**4.0000e-004**	**0.0646**	**0.0171**	**3.7000e-004**	**0.0174**	**0.0000**	**53.1208**	**53.1208**	**1.2100e-003**	**0.0000**	**53.1510**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.0795	0.0997	1.5000e-004		4.6700e-003	4.6700e-003		4.5100e-003	4.5100e-003	0.0000	13.2065	13.2065	2.1300e-003	0.0000	13.2597
Total	**0.3425**	**0.0795**	**0.0997**	**1.5000e-004**		**4.6700e-003**	**4.6700e-003**		**4.5100e-003**	**4.5100e-003**	**0.0000**	**13.2065**	**13.2065**	**2.1300e-003**	**0.0000**	**13.2597**

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	5.7900e-003	3.8600e-003	0.0424	1.4000e-004	0.0160	1.0000e-004	0.0161	4.2500e-003	9.0000e-005	4.3400e-003	0.0000	12.7488	12.7488	2.7000e-004	0.0000	12.7555
Total	**5.7900e-003**	**3.8600e-003**	**0.0424**	**1.4000e-004**	**0.0160**	**1.0000e-004**	**0.0161**	**4.2500e-003**	**9.0000e-005**	**4.3400e-003**	**0.0000**	**12.7488**	**12.7488**	**2.7000e-004**	**0.0000**	**12.7555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	3.0600e-003	0.0607	0.1020	1.5000e-004		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	13.2065	13.2065	2.1300e-003	0.0000	13.2597
Total	**0.3355**	**0.0607**	**0.1020**	**1.5000e-004**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**13.2065**	**13.2065**	**2.1300e-003**	**0.0000**	**13.2597**

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	5.7900e-003	3.8600e-003	0.0424	1.4000e-004	0.0160	1.0000e-004	0.0161	4.2500e-003	9.0000e-005	4.3400e-003	0.0000	12.7488	12.7488	2.7000e-004	0.0000	12.7555
Total	**5.7900e-003**	**3.8600e-003**	**0.0424**	**1.4000e-004**	**0.0160**	**1.0000e-004**	**0.0161**	**4.2500e-003**	**9.0000e-005**	**4.3400e-003**	**0.0000**	**12.7488**	**12.7488**	**2.7000e-004**	**0.0000**	**12.7555**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0133	0.1359	0.1566	2.3000e-004		7.4700e-003	7.4700e-003		6.8700e-003	6.8700e-003	0.0000	20.5539	20.5539	6.6500e-003	0.0000	20.7201
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0133**	**0.1359**	**0.1566**	**2.3000e-004**		**7.4700e-003**	**7.4700e-003**		**6.8700e-003**	**6.8700e-003**	**0.0000**	**20.5539**	**20.5539**	**6.6500e-003**	**0.0000**	**20.7201**

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	2.0000e-005	5.3000e-004	1.2000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1506	0.1506	1.0000e-005	0.0000	0.1508
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	4.2700e-003	2.9600e-003	0.0317	1.0000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9900e-003	0.0000	9.0997	9.0997	2.1000e-004	0.0000	9.1048
Total	**4.2900e-003**	**3.4900e-003**	**0.0318**	**1.0000e-004**	**0.0110**	**7.0000e-005**	**0.0111**	**2.9300e-003**	**6.0000e-005**	**3.0000e-003**	**0.0000**	**9.2503**	**9.2503**	**2.2000e-004**	**0.0000**	**9.2556**

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	4.0000e-003	0.1028	0.1773	2.3000e-004		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	20.5539	20.5539	6.6500e-003	0.0000	20.7200
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.0000e-003**	**0.1028**	**0.1773**	**2.3000e-004**		**3.8000e-004**	**3.8000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**20.5539**	**20.5539**	**6.6500e-003**	**0.0000**	**20.7200**

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	2.0000e-005	5.3000e-004	1.2000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1506	0.1506	1.0000e-005	0.0000	0.1508
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	4.2700e-003	2.9600e-003	0.0317	1.0000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9900e-003	0.0000	9.0997	9.0997	2.1000e-004	0.0000	9.1048
Total	**4.2900e-003**	**3.4900e-003**	**0.0318**	**1.0000e-004**	**0.0110**	**7.0000e-005**	**0.0111**	**2.9300e-003**	**6.0000e-005**	**3.0000e-003**	**0.0000**	**9.2503**	**9.2503**	**2.2000e-004**	**0.0000**	**9.2556**

3896 Stevens Creek Blvd TAC - Office - Santa Clara County, Annual

3896 Stevens Creek Blvd TAC - Office

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	308.00	1000sqft	4.80	308,000.00	0
Enclosed Parking with Elevator	1,300.00	Space	0.00	495,000.00	0
Fast Food Restaurant w/o Drive Thru	1.50	1000sqft	0.00	1,500.00	0
Quality Restaurant	3.50	1000sqft	0.00	3,500.00	0
Strip Mall	10.49	1000sqft	0.00	10,488.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Office (308,000 sf), retail (10,488 -traffic), resturant (quality & fast-food to match with traffic) and 1,300 parking spaces (495,000 sf) on 4.8-acres

Construction Phase - Projet Applicant Construction Schedule, used total work days per phase

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list, other equipment for man lift

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list including two bore/drill rigs to account for auger drilling, other equipment for manlift

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list

Off-road Equipment - Project applicant equipment list

Trips and VMT - 227 + 198 = 425 hauling demo trips, 4,000 total round trips of cement trucks for building construction, 30 cy of asphalt for paving, TAC trip length of 1 mile

Demolition - 50,000 sqft of building demo

Grading - 300 cubic yards of export for grading

Vehicle Trips - Trip gens with reductions (no pass-by)

Energy Use -

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation - BMPs, Tier 3 DPF 3, electrified equipment, temporary power line

Stationary Sources - Emergency Generators and Fire Pumps - 2x 1,000 kW generators, estimating approximtely 1340 HP

Architectural Coating -

Area Coating -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	18.00	350.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	8.00	90.00
tblConstructionPhase	NumDays	18.00	154.00
tblConstructionPhase	NumDays	5.00	15.00
tblGrading	AcresOfGrading	0.00	5.63
tblGrading	MaterialExported	0.00	300.00
tblLandUse	LandUseSquareFeet	520,000.00	495,000.00
tblLandUse	LandUseSquareFeet	10,490.00	10,488.00
tblLandUse	LotAcreage	7.07	4.80
tblLandUse	LotAcreage	11.70	0.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	0.24	0.00
tblOffRoadEquipment	HorsePower	97.00	199.00
tblOffRoadEquipment	HorsePower	221.00	171.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	172.00	62.00
tblOffRoadEquipment	HorsePower	172.00	171.00
tblOffRoadEquipment	LoadFactor	0.37	0.36
tblOffRoadEquipment	LoadFactor	0.50	0.42
tblOffRoadEquipment	LoadFactor	0.42	0.31

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,340.00

tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	227.00	425.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblVehicleTrips	ST_TR	696.00	605.27
tblVehicleTrips	ST_TR	2.46	1.80
tblVehicleTrips	ST_TR	94.36	75.23
tblVehicleTrips	ST_TR	42.04	29.51

tblVehicleTrips	SU_TR	500.00	434.82
tblVehicleTrips	SU_TR	1.05	0.77
tblVehicleTrips	SU_TR	72.16	57.53
tblVehicleTrips	SU_TR	20.43	14.34
tblVehicleTrips	WD_TR	716.00	622.67
tblVehicleTrips	WD_TR	11.03	8.08
tblVehicleTrips	WD_TR	89.95	71.71
tblVehicleTrips	WD_TR	44.32	31.11
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

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					
2020	0.6056	5.3805	3.7587	7.8500e-003	0.1110	0.2201	0.3311	0.0387	0.2060	0.2447	0.0000	698.3525	698.3525	0.1614	0.0000	702.3882
2021	1.4430	1.0359	0.9734	1.7400e-003	0.0171	0.0448	0.0619	4.59E-03	0.0424	0.0470	0.0000	155.4341	155.4341	0.0292	0.0000	156.1639
2022	0.3444	0.0803	0.1105	1.7000e-004	1.5000e-003	4.69E-03	6.1900e-003	4.00E-04	4.5300e-003	4.9300e-003	0.0000	14.7330	14.7330	2.1800e-003	0.0000	14.7876
Maximum	**1.4430**	**5.3805**	**3.7587**	**7.8500e-003**	**0.1110**	**0.2201**	**0.3311**	**0.0387**	**0.2060**	**0.2447**	**0.0000**	**698.3525**	**698.3525**	**0.1614**	**0.0000**	**702.3882**

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					
2020	0.2832	3.1801	3.2234	7.8500e-003	0.0688	0.0189	0.0877	0.01600	0.0188	0.0349	0.0000	529.3329	529.3329	0.1128	0.0000	532.1521
2021	1.3787	0.7412	0.8119	1.7400e-003	0.0171	5.20E-03	0.0223	4.59E-03	5.1800e-003	9.7700e-003	0.0000	126.7392	126.7392	0.0215	0.0000	127.2764
2022	0.3376	0.0763	0.1128	1.7000e-004	1.5000e-003	8.10E-04	2.3100e-003	4.00E-04	8.1000e-004	1.2100e-003	0.0000	14.7330	14.7330	2.1800e-003	0.0000	14.7876
Maximum	**1.3787**	**3.1801**	**3.2234**	**7.8500e-003**	**0.0688**	**0.0189**	**0.0877**	**0.016**	**0.0188**	**0.0349**	**0.0000**	**529.3329**	**529.3329**	**0.1128**	**0.0000**	**532.1521**

	ROG	NOx	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	**16.44**	**38.47**	**14.34**	**0.00**	**32.56**	**90.75**	**71.86**	**51.94**	**90.19**	**84.55**	**0.00**	**22.76**	**22.76**	**29.23**	**0.00**	**22.80**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-3-2020**	**5-2-2020**	1.5694	0.9076
2	**5-3-2020**	**8-2-2020**	2.4600	1.4544
3	**8-3-2020**	**11-2-2020**	1.0400	0.5492
4	**11-3-2020**	**2-2-2021**	1.3116	0.8308

5	**2-3-2021**	**5-2-2021**	0.6682	0.5411
6	**5-3-2021**	**8-2-2021**	0.4829	0.4568
7	**8-3-2021**	**11-2-2021**	0.5031	0.4740
8	**11-3-2021**	**2-2-2022**	0.4765	0.4539
9	**2-3-2022**	**5-2-2022**	0.2707	0.2639
		Highest	2.4600	1.4544

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	2/3/2020	4/24/2020	5	60	
2	Site Preparation	Site Preparation	3/2/2020	3/20/2020	5	15	
3	Grading	Grading	3/23/2020	7/24/2020	5	90	
4	Trenching	Trenching	3/23/2020	4/10/2020	5	15	
5	Building Construction	Building Construction	5/25/2020	2/26/2021	5	200	
6	Architectural Coating	Architectural Coating	11/30/2020	4/1/2022	5	350	
7	Paving	Paving	6/1/2021	12/31/2021	5	154	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 5.63

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 485,232; Non-Residential Outdoor: 161,744; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	1.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	171	0.42
Grading	Cranes	2	8.00	226	0.29
Grading	Excavators	1	8.00	158	0.38
Grading	Forklifts	2	8.00	89	0.20
Grading	Graders	0	0.00	187	0.41
Grading	Other Construction Equipment	2	8.00	62	0.31
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Grading	Tractors/Loaders/Backhoes	4	8.00	199	0.36
Trenching	Excavators	1	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Aerial Lifts	0	6.40	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	3.20	89	0.20
Building Construction	Generator Sets	4	1.00	84	0.74
Building Construction	Other Construction Equipment	2	6.40	171	0.42
Building Construction	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Building Construction	Welders	1	1.00	46	0.45
Architectural Coating	Aerial Lifts	2	1.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	2	3.40	89	0.20
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Paving	Pavers	1	1.00	130	0.42
Paving	Paving Equipment	2	1.00	132	0.36
Paving	Rollers	2	1.00	80	0.38

Paving	Tractors/Loaders/Backhoes	2	1.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	425.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	19	48.00	0.00	30.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	312.00	134.00	8,000.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	5	62.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	4.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					0.0246	0	0.0246	3.73E-03	0	3.73E-03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0492	0.5002	0.318	5.50E-04		0.0256	0.0256		0.0237	0.0237	0.0000	48.3456	48.3456	0.0146	0.0000	48.7103
Total	**0.0492**	**0.5002**	**0.318**	**5.50E-04**	**0.0246**	**0.0256**	**0.0502**	**3.73E-03**	**0.0237**	**0.0274**	**0.0000**	**48.3456**	**48.3456**	**0.0146**	**0.0000**	**48.7103**

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	4.60E-04	0.0219	3.58E-03	3.00E-05	1.80E-04	2.00E-05	2.10E-04	5.00E-05	2.00E-05	7.00E-05	0.0000	2.7600	2.7600	2.9000e-004	0.0000	2.7673
Vendor	0	0	0	0	0	0	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.30E-04	2.00E-04	2.56E-03	0	2.90E-04	0	2.90E-04	8.00E-05	0	8.00E-05	0.0000	0.3172	0.3172	1.0000e-005	0.0000	0.3175
Total	**8.90E-04**	**0.0221**	**6.14E-03**	**3.00E-05**	**4.70E-04**	**2.00E-05**	**5.00E-04**	**1.30E-04**	**2.00E-05**	**1.50E-04**	**0.0000**	**3.0771**	**3.0771**	**3.0000e-004**	**0.0000**	**3.0848**

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					0.0111	0	0.0111	8.40E-04	0	8.40E-04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.2684	0.3527	5.50E-04		2.00E-03	2.00E-03		2.00E-03	2.00E-03	0.0000	48.3455	48.3455	0.0146	0.0000	48.7102
Total	**0.0133**	**0.2684**	**0.3527**	**5.50E-04**	**0.0111**	**2.00E-03**	**0.0131**	**8.40E-04**	**2.00E-03**	**2.84E-03**	**0.0000**	**48.3455**	**48.3455**	**0.0146**	**0.0000**	**48.7102**

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	4.60E-04	0.0219	3.58E-03	3.00E-05	1.80E-04	2.00E-05	2.10E-04	5.00E-05	2.00E-05	7.00E-05	0.0000	2.7600	2.7600	2.9000e-004	0.0000	2.7673
Vendor	0	0	0	0	0	0	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.30E-04	2.00E-04	2.56E-03	0	2.90E-04	0	2.90E-04	8.00E-05	0	8.00E-05	0.0000	0.3172	0.3172	1.0000e-005	0.0000	0.3175
Total	**8.90E-04**	**0.0221**	**6.14E-03**	**3.00E-05**	**4.70E-04**	**2.00E-05**	**5.00E-04**	**1.30E-04**	**2.00E-05**	**1.50E-04**	**0.0000**	**3.0771**	**3.0771**	**3.0000e-004**	**0.0000**	**3.0848**

3.3 Site Preparation - 2020

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1640	0.0788	1.6000e-004		7.6800e-003	7.6800e-003		7.0600e-003	7.0600e-003	0.0000	14.0949	14.0949	4.5600e-003	0.0000	14.2089
Total	**0.0148**	**0.1640**	**0.0788**	**1.6000e-004**	**0.0491**	**7.6800e-003**	**0.0568**	**0.0253**	**7.0600e-003**	**0.0323**	**0.0000**	**14.0949**	**14.0949**	**4.5600e-003**	**0.0000**	**14.2089**

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	8.0000e-005	4.0000e-005	4.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0610	0.0610	0.0000	0.0000	0.0611
Total	**8.0000e-005**	**4.0000e-005**	**4.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0610**	**0.0610**	**0.0000**	**0.0000**	**0.0611**

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					0.0221	0.0000	0.0221	5.6800e-003	0.0000	5.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9200e-003	0.0799	0.0955	1.6000e-004		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	14.0949	14.0949	4.5600e-003	0.0000	14.2089
Total	**3.9200e-003**	**0.0799**	**0.0955**	**1.6000e-004**	**0.0221**	**5.8000e-004**	**0.0227**	**5.6800e-003**	**5.8000e-004**	**6.2600e-003**	**0.0000**	**14.0949**	**14.0949**	**4.5600e-003**	**0.0000**	**14.2089**

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	8.0000e-005	4.0000e-005	4.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0610	0.0610	0.0000	0.0000	0.0611
Total	**8.0000e-005**	**4.0000e-005**	**4.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0610**	**0.0610**	**0.0000**	**0.0000**	**0.0611**

3.4 Grading - 2020

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					2.9900e-003	0.0000	2.9900e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2274	2.2961	1.8249	3.7800e-003		0.1121	0.1121		0.1057	0.1057	0.0000	330.4754	330.4754	0.0859	0.0000	332.6238
Total	**0.2274**	**2.2961**	**1.8249**	**3.7800e-003**	**2.9900e-003**	**0.1121**	**0.1151**	**3.2000e-004**	**0.1057**	**0.1060**	**0.0000**	**330.4754**	**330.4754**	**0.0859**	**0.0000**	**332.6238**

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	3.0000e-005	1.5500e-003	2.5000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1948	0.1948	2.0000e-005	0.0000	0.1953
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	2.3900e-003	1.1000e-003	0.0142	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.7565	1.7565	8.0000e-005	0.0000	1.7584
Total	**2.4200e-003**	**2.6500e-003**	**0.0144**	**2.0000e-005**	**1.6200e-003**	**2.0000e-005**	**1.6400e-003**	**4.3000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.9513**	**1.9513**	**1.0000e-004**	**0.0000**	**1.9538**

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					1.3400e-003	0.0000	1.3400e-003	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0725	1.4913	1.9843	3.7800e-003		0.0119	0.0119		0.0119	0.0119	0.0000	272.7699	272.7699	0.0673	0.0000	274.4517
Total	**0.0725**	**1.4913**	**1.9843**	**3.7800e-003**	**1.3400e-003**	**0.0119**	**0.0133**	**7.0000e-005**	**0.0119**	**0.0120**	**0.0000**	**272.7699**	**272.7699**	**0.0673**	**0.0000**	**274.4517**

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	3.0000e-005	1.5500e-003	2.5000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1948	0.1948	2.0000e-005	0.0000	0.1953
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	2.3900e-003	1.1000e-003	0.0142	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.7565	1.7565	8.0000e-005	0.0000	1.7584
Total	**2.4200e-003**	**2.6500e-003**	**0.0144**	**2.0000e-005**	**1.6200e-003**	**2.0000e-005**	**1.6400e-003**	**4.3000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.9513**	**1.9513**	**1.0000e-004**	**0.0000**	**1.9538**

3.5 Trenching - 2020

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	2.6200e-003	0.0260	0.0331	5.0000e-005		1.3800e-003	1.3800e-003		1.2700e-003	1.2700e-003	0.0000	4.4260	4.4260	1.4300e-003	0.0000	4.4617

Total	**2.6200e-003**	**0.0260**	**0.0331**	**5.0000e-005**		**1.3800e-003**	**1.3800e-003**		**1.2700e-003**	**1.2700e-003**	**0.0000**	**4.4260**	**4.4260**	**1.4300e-003**	**0.0000**	**4.4617**

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	4.0000e-005	2.0000e-005	2.5000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0305	0.0305	0.0000	0.0000	0.0305
Total	**4.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0305**	**0.0305**	**0.0000**	**0.0000**	**0.0305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2400e-003	0.0249	0.0382	5.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	4.4259	4.4259	1.4300e-003	0.0000	4.4617
Total	**1.2400e-003**	**0.0249**	**0.0382**	**5.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**4.4259**	**4.4259**	**1.4300e-003**	**0.0000**	**4.4617**

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	4.0000e-005	2.0000e-005	2.5000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0305	0.0305	0.0000	0.0000	0.0305
Total	**4.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0305**	**0.0305**	**0.0000**	**0.0000**	**0.0305**

3.6 Building Construction - 2020

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	0.1256	1.2806	1.0265	1.6400e-003		0.0692	0.0692		0.0644	0.0644	0.0000	143.4170	143.4170	0.0401	0.0000	144.4184
Total	**0.1256**	**1.2806**	**1.0265**	**1.6400e-003**		**0.0692**	**0.0692**		**0.0644**	**0.0644**	**0.0000**	**143.4170**	**143.4170**	**0.0401**	**0.0000**	**144.4184**

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	6.9100e-003	0.3280	0.0535	4.3000e-004	3.2800e-003	3.1000e-004	3.5900e-003	8.9000e-004	3.0000e-004	1.1900e-003	0.0000	41.3018	41.3018	4.3900e-003	0.0000	41.4116
Vendor	0.0201	0.7125	0.1978	8.9000e-004	9.8400e-003	1.1500e-003	0.0110	2.8700e-003	1.1000e-003	3.9700e-003	0.0000	85.5199	85.5199	8.3500e-003	0.0000	85.7285
Worker	0.0275	0.0126	0.1626	2.2000e-004	0.0184	2.5000e-004	0.0187	4.9300e-003	2.3000e-004	5.1600e-003	0.0000	20.1707	20.1707	8.7000e-004	0.0000	20.1924
Total	**0.0545**	**1.0530**	**0.4139**	**1.5400e-003**	**0.0316**	**1.7100e-003**	**0.0333**	**8.6900e-003**	**1.6300e-003**	**0.0103**	**0.0000**	**146.9924**	**146.9924**	**0.0136**	**0.0000**	**147.3325**

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	9.4900e-003	0.2094	0.2749	1.6400e-003		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003	0.0000	32.1031	32.1031	0.0101	0.0000	32.3545
Total	**9.4900e-003**	**0.2094**	**0.2749**	**1.6400e-003**		**2.1800e-003**	**2.1800e-003**		**2.1800e-003**	**2.1800e-003**	**0.0000**	**32.1031**	**32.1031**	**0.0101**	**0.0000**	**32.3545**

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	6.9100e-003	0.3280	0.0535	4.3000e-004	3.2800e-003	3.1000e-004	3.5900e-003	8.9000e-004	3.0000e-004	1.1900e-003	0.0000	41.3018	41.3018	4.3900e-003	0.0000	41.4116
Vendor	0.0201	0.7125	0.1978	8.9000e-004	9.8400e-003	1.1500e-003	0.0110	2.8700e-003	1.1000e-003	3.9700e-003	0.0000	85.5199	85.5199	8.3500e-003	0.0000	85.7285
Worker	0.0275	0.0126	0.1626	2.2000e-004	0.0184	2.5000e-004	0.0187	4.9300e-003	2.3000e-004	5.1600e-003	0.0000	20.1707	20.1707	8.7000e-004	0.0000	20.1924
Total	**0.0545**	**1.0530**	**0.4139**	**1.5400e-003**	**0.0316**	**1.7100e-003**	**0.0333**	**8.6900e-003**	**1.6300e-003**	**0.0103**	**0.0000**	**146.9924**	**146.9924**	**0.0136**	**0.0000**	**147.3325**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0283	0.2871	0.2602	4.2000e-004		0.0151	0.0151		0.0140	0.0140	0.0000	36.9755	36.9755	0.0103	0.0000	37.2326
Total	**0.0283**	**0.2871**	**0.2602**	**4.2000e-004**		**0.0151**	**0.0151**		**0.0140**	**0.0140**	**0.0000**	**36.9755**	**36.9755**	**0.0103**	**0.0000**	**37.2326**

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	1.6700e-003	0.0814	0.0133	1.1000e-004	2.7300e-003	7.0000e-005	2.8000e-003	6.9000e-004	7.0000e-005	7.6000e-004	0.0000	10.5381	10.5381	1.0800e-003	0.0000	10.5650
Vendor	4.6300e-003	0.1746	0.0470	2.3000e-004	2.5400e-003	1.5000e-004	2.6800e-003	7.4000e-004	1.4000e-004	8.8000e-004	0.0000	21.8420	21.8420	2.0300e-003	0.0000	21.8927
Worker	6.4700e-003	2.8600e-003	0.0378	6.0000e-005	4.7500e-003	6.0000e-005	4.8200e-003	1.2700e-003	6.0000e-005	1.3300e-003	0.0000	5.0247	5.0247	2.0000e-004	0.0000	5.0296
Total	**0.0128**	**0.2589**	**0.0981**	**4.0000e-004**	**0.0100**	**2.8000e-004**	**0.0103**	**2.7000e-003**	**2.7000e-004**	**2.9700e-003**	**0.0000**	**37.4048**	**37.4048**	**3.3100e-003**	**0.0000**	**37.4873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4500e-003	0.0540	0.0709	4.2000e-004		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.2806	8.2806	2.5800e-003	0.0000	8.3452
Total	**2.4500e-003**	**0.0540**	**0.0709**	**4.2000e-004**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**	**0.0000**	**8.2806**	**8.2806**	**2.5800e-003**	**0.0000**	**8.3452**

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	1.6700e-003	0.0814	0.0133	1.1000e-004	2.7300e-003	7.0000e-005	2.8000e-003	6.9000e-004	7.0000e-005	7.6000e-004	0.0000	10.5381	10.5381	1.0800e-003	0.0000	10.5650
Vendor	4.6300e-003	0.1746	0.0470	2.3000e-004	2.5400e-003	1.5000e-004	2.6800e-003	7.4000e-004	1.4000e-004	8.8000e-004	0.0000	21.8420	21.8420	2.0300e-003	0.0000	21.8927
Worker	6.4700e-003	2.8600e-003	0.0378	6.0000e-005	4.7500e-003	6.0000e-005	4.8200e-003	1.2700e-003	6.0000e-005	1.3300e-003	0.0000	5.0247	5.0247	2.0000e-004	0.0000	5.0296
Total	**0.0128**	**0.2589**	**0.0981**	**4.0000e-004**	**0.0100**	**2.8000e-004**	**0.0103**	**2.7000e-003**	**2.7000e-004**	**2.9700e-003**	**0.0000**	**37.4048**	**37.4048**	**3.3100e-003**	**0.0000**	**37.4873**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	4.4900e-003	0.0354	0.0373	6.0000e-005		2.3600e-003	2.3600e-003		2.2800e-003	2.2800e-003	0.0000	4.8763	4.8763	8.2000e-004	0.0000	4.8968
Total	**0.1272**	**0.0354**	**0.0373**	**6.0000e-005**		**2.3600e-003**	**2.3600e-003**		**2.2800e-003**	**2.2800e-003**	**0.0000**	**4.8763**	**4.8763**	**8.2000e-004**	**0.0000**	**4.8968**

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	8.2000e-004	3.8000e-004	4.8800e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.5000e-004	0.0000	0.6050	0.6050	3.0000e-005	0.0000	0.6057
Total	**8.2000e-004**	**3.8000e-004**	**4.8800e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**1.5000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.6050**	**0.6050**	**3.0000e-005**	**0.0000**	**0.6057**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2200e-003	0.0279	0.0377	6.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.8763	4.8763	8.2000e-004	0.0000	4.8968
Total	**0.1240**	**0.0279**	**0.0377**	**6.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**4.8763**	**4.8763**	**8.2000e-004**	**0.0000**	**4.8968**

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	8.2000e-004	3.8000e-004	4.8800e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.5000e-004	0.0000	0.6050	0.6050	3.0000e-005	0.0000	0.6057
Total	**8.2000e-004**	**3.8000e-004**	**4.8800e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**1.5000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.6050**	**0.6050**	**3.0000e-005**	**0.0000**	**0.6057**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0441	0.3496	0.4024	6.1000e-004		0.0219	0.0219		0.0212	0.0212	0.0000	53.0293	53.0293	8.6600e-003	0.0000	53.2458
Total	**1.3790**	**0.3496**	**0.4024**	**6.1000e-004**		**0.0219**	**0.0219**		**0.0212**	**0.0212**	**0.0000**	**53.0293**	**53.0293**	**8.6600e-003**	**0.0000**	**53.2458**

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	8.1900e-003	3.6200e-003	0.0478	7.0000e-005	6.0100e-003	8.0000e-005	6.0900e-003	1.6100e-003	7.0000e-005	1.6800e-003	0.0000	6.3563	6.3563	2.5000e-004	0.0000	6.3625
Total	**8.1900e-003**	**3.6200e-003**	**0.0478**	**7.0000e-005**	**6.0100e-003**	**8.0000e-005**	**6.0900e-003**	**1.6100e-003**	**7.0000e-005**	**1.6800e-003**	**0.0000**	**6.3563**	**6.3563**	**2.5000e-004**	**0.0000**	**6.3625**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3349					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.3033	0.4096	6.1000e-004		3.1900e-003	3.1900e-003		3.1900e-003	3.1900e-003	0.0000	53.0292	53.0292	8.6600e-003	0.0000	53.2457
Total	**1.3481**	**0.3033**	**0.4096**	**6.1000e-004**		**3.1900e-003**	**3.1900e-003**		**3.1900e-003**	**3.1900e-003**	**0.0000**	**53.0292**	**53.0292**	**8.6600e-003**	**0.0000**	**53.2457**

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	8.1900e-003	3.6200e-003	0.0478	7.0000e-005	6.0100e-003	8.0000e-005	6.0900e-003	1.6100e-003	7.0000e-005	1.6800e-003	0.0000	6.3563	6.3563	2.5000e-004	0.0000	6.3625
Total	**8.1900e-003**	**3.6200e-003**	**0.0478**	**7.0000e-005**	**6.0100e-003**	**8.0000e-005**	**6.0900e-003**	**1.6100e-003**	**7.0000e-005**	**1.6800e-003**	**0.0000**	**6.3563**	**6.3563**	**2.5000e-004**	**0.0000**	**6.3625**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.0795	0.0997	1.5000e-004		4.6700e-003	4.6700e-003		4.5100e-003	4.5100e-003	0.0000	13.2065	13.2065	2.1300e-003	0.0000	13.2597
Total	**0.3425**	**0.0795**	**0.0997**	**1.5000e-004**		**4.6700e-003**	**4.6700e-003**		**4.5100e-003**	**4.5100e-003**	**0.0000**	**13.2065**	**13.2065**	**2.1300e-003**	**0.0000**	**13.2597**

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	1.8700e-003	8.0000e-004	0.0108	2.0000e-005	1.5000e-003	2.0000e-005	1.5200e-003	4.0000e-004	2.0000e-005	4.2000e-004	0.0000	1.5265	1.5265	6.0000e-005	0.0000	1.5279
Total	**1.8700e-003**	**8.0000e-004**	**0.0108**	**2.0000e-005**	**1.5000e-003**	**2.0000e-005**	**1.5200e-003**	**4.0000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.5265**	**1.5265**	**6.0000e-005**	**0.0000**	**1.5279**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3100e-003	0.0755	0.1020	1.5000e-004		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	13.2065	13.2065	2.1300e-003	0.0000	13.2597
Total	**0.3357**	**0.0755**	**0.1020**	**1.5000e-004**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**13.2065**	**13.2065**	**2.1300e-003**	**0.0000**	**13.2597**

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	1.8700e-003	8.0000e-004	0.0108	2.0000e-005	1.5000e-003	2.0000e-005	1.5200e-003	4.0000e-004	2.0000e-005	4.2000e-004	0.0000	1.5265	1.5265	6.0000e-005	0.0000	1.5279
Total	**1.8700e-003**	**8.0000e-004**	**0.0108**	**2.0000e-005**	**1.5000e-003**	**2.0000e-005**	**1.5200e-003**	**4.0000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.5265**	**1.5265**	**6.0000e-005**	**0.0000**	**1.5279**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0133	0.1359	0.1566	2.3000e-004		7.4700e-003	7.4700e-003		6.8700e-003	6.8700e-003	0.0000	20.5539	20.5539	6.6500e-003	0.0000	20.7201

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0133**	**0.1359**	**0.1566**	**2.3000e-004**		**7.4700e-003**	**7.4700e-003**		**6.8700e-003**	**6.8700e-003**	**0.0000**	**20.5539**	**20.5539**	**6.6500e-003**	**0.0000**	**20.7201**

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	2.0000e-004	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0257	0.0257	0.0000	0.0000	0.0258
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	1.4000e-003	6.2000e-004	8.1900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	1.0888	1.0888	4.0000e-005	0.0000	1.0899
Total	**1.4000e-003**	**8.2000e-004**	**8.2200e-003**	**1.0000e-005**	**1.0300e-003**	**1.0000e-005**	**1.0400e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**1.1145**	**1.1145**	**4.0000e-005**	**0.0000**	**1.1157**

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	5.7500e-003	0.1206	0.1773	2.3000e-004		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	20.5539	20.5539	6.6500e-003	0.0000	20.7200
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.7500e-003**	**0.1206**	**0.1773**	**2.3000e-004**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**20.5539**	**20.5539**	**6.6500e-003**	**0.0000**	**20.7200**

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	2.0000e-004	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0257	0.0257	0.0000	0.0000	0.0258
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	1.4000e-003	6.2000e-004	8.1900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	1.0888	1.0888	4.0000e-005	0.0000	1.0899
Total	**1.4000e-003**	**8.2000e-004**	**8.2200e-003**	**1.0000e-005**	**1.0300e-003**	**1.0000e-005**	**1.0400e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**1.1145**	**1.1145**	**4.0000e-005**	**0.0000**	**1.1157**

Existing CalEEMod Outputs

3896 Stevens Creek Blvd - Existing AQ/GHG 2030 - Santa Clara County, Annual

3896 Stevens Creek Blvd - Existing AQ/GHG 2030

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	47.63	1000sqft	4.80	47,631.00	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)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290

Land Use - Existing Land Use based on Garden City Arch Plans

Construction Phase - No Construction Inputs

Vehicle Trips - 520 trips/47.631 ksf = 10.92, 10.36, 5.03

Energy Use - Using Historical Data

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	3/6/2020	2/28/2020

tblLandUse	LotAcreage	1.09	4.80
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	42.04	10.36
tblVehicleTrips	SU_TR	20.43	5.03
tblVehicleTrips	WD_TR	44.32	10.92
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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					

2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.10E-04
Energy	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	84.1739	84.1739	7.8200e-003	1.7200e-003	84.8831
Mobile	0.0626	0.2650	0.6128	2.4500e-003	0.2727	1.7000e-003	0.2744	0.0730	1.5800e-003	0.0746	0.0000	225.2142	225.2142	6.9700e-003	0.0000	225.3883
Waste						0.0000	0.0000		0.0000	0.0000	10.1516	0.0000	10.1516	0.5999	0.0000	25.1501
Water						0.0000	0.0000		0.0000	0.0000	1.2482	3.5067	4.7550	4.6500e-003	2.7900e-003	5.7017
Total	**0.2743**	**0.2719**	**0.6190**	**2.4900e-003**	**0.2727**	**2.2200e-003**	**0.2749**	**0.0730**	**2.1000e-003**	**0.0751**	**11.3998**	**312.8957**	**324.2955**	**0.6194**	**4.5100e-003**	**341.1242**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Energy	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	84.1739	84.1739	7.8200e-003	1.7200e-003	84.8831
Mobile	0.0626	0.2650	0.6128	2.4500e-003	0.2727	1.7000e-003	0.2744	0.0730	1.5800e-003	0.0746	0.0000	225.2142	225.2142	6.9700e-003	0.0000	225.3883
Waste						0.0000	0.0000		0.0000	0.0000	10.1516	0.0000	10.1516	0.5999	0.0000	25.1501
Water						0.0000	0.0000		0.0000	0.0000	1.2482	3.5067	4.7550	4.6500e-003	2.7900e-003	5.7017
Total	**0.2743**	**0.2719**	**0.6190**	**2.4900e-003**	**0.2727**	**2.2200e-003**	**0.2749**	**0.0730**	**2.1000e-003**	**0.0751**	**11.3998**	**312.8957**	**324.2955**	**0.6194**	**4.5100e-003**	**341.1242**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/29/2020	2/28/2020	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0626	0.2650	0.6128	2.4500e-003	0.2727	1.7000e-003	0.2744	0.0730	1.5800e-003	0.0746	0.0000	225.2142	225.2142	6.9700e-003	0.0000	225.3883
Unmitigated	0.0626	0.2650	0.6128	2.4500e-003	0.2727	1.7000e-003	0.2744	0.0730	1.5800e-003	0.0746	0.0000	225.2142	225.2142	6.9700e-003	0.0000	225.3883

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	520.13	493.46	239.58	733,428	733,428
Total	520.13	493.46	239.58	733,428	733,428

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
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
Strip Mall	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures 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	76.7520	76.7520	7.6800e-003	1.5900e-003	77.4171
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76.7520	76.7520	7.6800e-003	1.5900e-003	77.4171
NaturalGas Mitigated	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661
NaturalGas Unmitigated	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661

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					
Strip Mall	139083	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661
Total		**7.5000e-004**	**6.8200e-003**	**5.7300e-003**	**4.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**7.4220**	**7.4220**	**1.4000e-004**	**1.4000e-004**	**7.4661**

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					
Strip Mall	139083	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661
Total		**7.5000e-004**	**6.8200e-003**	**5.7300e-003**	**4.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**7.4220**	**7.4220**	**1.4000e-004**	**1.4000e-004**	**7.4661**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	583480	76.7520	7.6800e-003	1.5900e-003	77.4171
Total		**76.7520**	**7.6800e-003**	**1.5900e-003**	**77.4171**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	583480	76.7520	7.6800e-003	1.5900e-003	77.4171

Total		**76.7520**	**7.6800e-003**	**1.5900e-003**	**77.4171**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Unmitigated	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1860					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

Total	**0.2109**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.5000e-004**	**8.5000e-004**	**0.0000**	**0.0000**	**9.1000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1860					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Total	**0.2109**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.5000e-004**	**8.5000e-004**	**0.0000**	**0.0000**	**9.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7550	4.6500e-003	2.7900e-003	5.7017
Unmitigated	4.7550	4.6500e-003	2.7900e-003	5.7017

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.52807 / 2.16237	4.7550	4.6500e-003	2.7900e-003	5.7017
Total		**4.7550**	**4.6500e-003**	**2.7900e-003**	**5.7017**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.52807 / 2.16237	4.7550	4.6500e-003	2.7900e-003	5.7017
Total		**4.7550**	**4.6500e-003**	**2.7900e-003**	**5.7017**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1516	0.5999	0.0000	25.1501
Unmitigated	10.1516	0.5999	0.0000	25.1501

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	50.01	10.1516	0.5999	0.0000	25.1501
Total		**10.1516**	**0.5999**	**0.0000**	**25.1501**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	50.01	10.1516	0.5999	0.0000	25.1501

Total		**10.1516**	**0.5999**	**0.0000**	**25.1501**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3896 Stevens Creek Blvd - Existing AQ/GHG - Santa Clara County, Annual

3896 Stevens Creek Blvd - Existing AQ/GHG

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	47.63	1000sqft	4.80	47,631.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290

Land Use - Existing Land Use based on Garden City Arch Plans

Construction Phase - No Construction Inputs

Vehicle Trips - 520 trips/47.631 ksf = 10.92, 10.36, 5.03

Energy Use - Using Historical Data

Water And Wastewater - 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	3/6/2020	2/28/2020

tblLandUse	LotAcreage	1.09	4.80
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	42.04	10.36
tblVehicleTrips	SU_TR	20.43	5.03
tblVehicleTrips	WD_TR	44.32	10.92
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0	9.10E-04
Energy	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	84.1739	84.1739	7.8200e-003	1.72E-03	84.8831
Mobile	0.0901	0.3182	0.8973	2.9500e-003	0.2727	2.3700e-003	0.2751	0.0730	2.2100e-003	0.0752	0.0000	270.7332	270.7332	9.3700e-003	0	270.9675
Waste						0.0000	0.0000		0.0000	0.0000	10.1516	0.0000	10.1516	0.5999	0	25.1501
Water						0.0000	0.0000		0.0000	0.0000	1.2482	3.5067	4.7550	4.6500e-003	2.79E-03	5.7017
Total	**0.3017**	**0.325**	**0.9035**	**2.99E-03**	**0.2727**	**2.89E-03**	**0.2756**	**0.073**	**2.73E-03**	**0.0757**	**11.3998**	**358.4147**	**369.8145**	**0.6218**	**4.51E-03**	**386.7033**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Energy	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	84.1739	84.1739	7.8200e-003	1.7200e-003	84.8831
Mobile	0.0901	0.3182	0.8973	2.9500e-003	0.2727	2.3700e-003	0.2751	0.0730	2.2100e-003	0.0752	0.0000	270.7332	270.7332	9.3700e-003	0.0000	270.9675
Waste						0.0000	0.0000		0.0000	0.0000	10.1516	0.0000	10.1516	0.5999	0.0000	25.1501
Water						0.0000	0.0000		0.0000	0.0000	1.2482	3.5067	4.7550	4.6500e-003	2.7900e-003	5.7017
Total	**0.3017**	**0.3250**	**0.9035**	**2.9900e-003**	**0.2727**	**2.8900e-003**	**0.2756**	**0.0730**	**2.7300e-003**	**0.0757**	**11.3998**	**358.4147**	**369.8145**	**0.6218**	**4.5100e-003**	**386.7033**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/29/2020	2/28/2020	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0901	0.3182	0.8973	2.9500e-003	0.2727	2.3700e-003	0.2751	0.0730	2.2100e-003	0.0752	0.0000	270.7332	270.7332	9.3700e-003	0.0000	270.9675
Unmitigated	0.0901	0.3182	0.8973	2.9500e-003	0.2727	2.3700e-003	0.2751	0.0730	2.2100e-003	0.0752	0.0000	270.7332	270.7332	9.3700e-003	0.0000	270.9675

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	520.13	493.46	239.58	733,428	733,428
Total	520.13	493.46	239.58	733,428	733,428

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
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
Strip Mall	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures 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	76.7520	76.7520	7.6800e-003	1.5900e-003	77.4171
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	76.7520	76.7520	7.6800e-003	1.5900e-003	77.4171
NaturalGas Mitigated	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661
NaturalGas Unmitigated	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661

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					
Strip Mall	139083	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661
Total		**7.5000e-004**	**6.8200e-003**	**5.7300e-003**	**4.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**7.4220**	**7.4220**	**1.4000e-004**	**1.4000e-004**	**7.4661**

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					
Strip Mall	139083	7.5000e-004	6.8200e-003	5.7300e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4220	7.4220	1.4000e-004	1.4000e-004	7.4661
Total		**7.5000e-004**	**6.8200e-003**	**5.7300e-003**	**4.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**7.4220**	**7.4220**	**1.4000e-004**	**1.4000e-004**	**7.4661**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	583480	76.7520	7.6800e-003	1.5900e-003	77.4171
Total		**76.7520**	**7.6800e-003**	**1.5900e-003**	**77.4171**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	583480	76.7520	7.6800e-003	1.5900e-003	77.4171

Total		**76.7520**	**7.6800e-003**	**1.5900e-003**	**77.4171**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Unmitigated	0.2109	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1860					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004

Total	**0.2109**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.5000e-004**	**8.5000e-004**	**0.0000**	**0.0000**	**9.1000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1860					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.5000e-004	8.5000e-004	0.0000	0.0000	9.1000e-004
Total	**0.2109**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.5000e-004**	**8.5000e-004**	**0.0000**	**0.0000**	**9.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7550	4.6500e-003	2.7900e-003	5.7017
Unmitigated	4.7550	4.6500e-003	2.7900e-003	5.7017

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.52807 / 2.16237	4.7550	4.6500e-003	2.7900e-003	5.7017
Total		**4.7550**	**4.6500e-003**	**2.7900e-003**	**5.7017**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.52807 / 2.16237	4.7550	4.6500e-003	2.7900e-003	5.7017
Total		**4.7550**	**4.6500e-003**	**2.7900e-003**	**5.7017**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1516	0.5999	0.0000	25.1501
Unmitigated	10.1516	0.5999	0.0000	25.1501

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	50.01	10.1516	0.5999	0.0000	25.1501
Total		**10.1516**	**0.5999**	**0.0000**	**25.1501**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	50.01	10.1516	0.5999	0.0000	25.1501

Total		**10.1516**	**0.5999**	**0.0000**	**25.1501**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Full-Built Out CalEEMod Outputs

3896 Stevens Creek Blvd Operational AQ/GHG - Entire Project

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	308.00	1000sqft	4.80	308,000.00	0
Enclosed Parking with Elevator	1,300.00	Space	0.00	495,000.00	0
Fast Food Restaurant w/o Drive Thru	1.50	1000sqft	0.00	1,500.00	0
Health Club	151.26	1000sqft	0.00	151,258.00	0
Quality Restaurant	3.50	1000sqft	0.00	3,500.00	0
Strip Mall	10.49	1000sqft	0.00	10,488.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Office, health club, retail, resturant (quality & fast-food to match with traffic) and 1,300 parking spaces on 4.8-acres

Construction Phase - Operational Model, No Construction

Off-road Equipment - Project applicant equipment list

Off-road Equipment - No Construction Equipment

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip gens with reductions (no pass-by)

Energy Use -

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation -

Energy Mitigation - Accounting for 2020 Reach Code

Stationary Sources - Emergency Generators and Fire Pumps - 2x 1,000 kW generators, estimating approximtely 1340 HP

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	2/7/2020	2/2/2020
tblLandUse	LandUseSquareFeet	520,000.00	495,000.00
tblLandUse	LandUseSquareFeet	10,490.00	10,488.00
tblLandUse	LotAcreage	7.07	4.80
tblLandUse	LotAcreage	11.70	0.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	LotAcreage	3.47	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	0.24	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,340.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	ST_TR	696.00	605.27
tblVehicleTrips	ST_TR	2.46	1.80

tblVehicleTrips	ST_TR	20.87	18.35
tblVehicleTrips	ST_TR	94.36	75.23
tblVehicleTrips	ST_TR	42.04	29.51
tblVehicleTrips	SU_TR	500.00	434.82
tblVehicleTrips	SU_TR	1.05	0.77
tblVehicleTrips	SU_TR	26.73	23.50
tblVehicleTrips	SU_TR	72.16	57.53
tblVehicleTrips	SU_TR	20.43	14.34
tblVehicleTrips	WD_TR	716.00	622.67
tblVehicleTrips	WD_TR	11.03	8.08
tblVehicleTrips	WD_TR	32.93	28.95
tblVehicleTrips	WD_TR	89.95	71.71
tblVehicleTrips	WD_TR	44.32	31.11
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

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	2.1455	1.50E-04	0.0163	0		6.00E-05	6.00E-05		6.00E-05	6.00E-05	0	0.0317	0.0317	8.00E-05	0	0.0338
Energy	0.0544	0.4949	0.4157	2.97E-03		0.0376	0.0376		0.0376	0.0376	0	1,843.34	1,843.34	0.1408	0.0369	1,857.85
Mobile	1.4637	5.3209	15.7407	0.0541	5.0836	0.0428	5.1263	1.3607	0.0398	1.4005	0	4,957.84	4,957.84	0.1648	0	4,961.96
Stationary	0.11	0.4917	0.2804	5.30E-04		0.0162	0.0162		0.0162	0.0162	0	51.0268	51.0268	7.15E-03	0	51.2057
Waste						0	0		0	0	239.5496	0	239.5496	14.157	0	593.4741
Water						0	0		0	0	23.3448	65.1999	88.5447	0.0869	0.0521	106.2471
Total	**3.7736**	**6.3077**	**16.4531**	**0.0576**	**5.0836**	**0.0966**	**5.1802**	**1.3607**	**0.0937**	**1.4544**	**262.8944**	**6,917.44**	**7,180.34**	**14.5566**	**0.089**	**7,570.77**

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	2.1455	1.50E-04	0.0163	0		6.00E-05	6.00E-05		6.00E-05	6.00E-05	0	0.0317	0.0317	8.00E-05	0	0.0338
Energy	0.0544	0.4949	0.4157	2.97E-03		0.0376	0.0376		0.0376	0.0376	0	538.7825	538.7825	0.0103	9.88E-03	541.9842

Mobile	1.4637	5.3209	15.7407	0.0541	5.0836	0.0428	5.1263	1.3607	0.0398	1.4005	0	4,957.84	4,957.84	0.1648	0	4,961.96
Stationary	0.11	0.4917	0.2804	5.30E-04		0.0162	0.0162		0.0162	0.0162	0	51.0268	51.0268	7.15E-03	0	51.2057
Waste						0	0		0	0	239.5496	0	239.5496	14.157	0	593.4741
Water						0	0		0	0	23.3448	65.1999	88.5447	0.0869	0.0521	106.2471
Total	**3.7736**	**6.3077**	**16.4531**	**0.0576**	**5.0836**	**0.0966**	**5.1802**	**1.3607**	**0.0937**	**1.4544**	**262.8944**	**5,612.88**	**5,875.78**	**14.4262**	**0.062**	**6,254.91**

	ROG	NOx	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**	**18.86**	**18.17**	**0.90**	**30.33**	**17.38**

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	1.4637	5.3209	15.7407	0.0541	5.0836	0.0428	5.1263	1.3607	0.0398	1.4005	0.0000	4,957.8423	4,957.8423	0.1648	0.0000	4,961.9615
Unmitigated	1.4637	5.3209	15.7407	0.0541	5.0836	0.0428	5.1263	1.3607	0.0398	1.4005	0.0000	4,957.8423	4,957.8423	0.1648	0.0000	4,961.9615

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		

Fast Food Restaurant w/o Drive Thru	934.01	907.91	652.23	1,435,223	1,435,223
General Office Building	2,488.64	554.40	237.16	4,518,258	4,518,258
Health Club	4,378.92	2,775.58	3554.56	6,966,135	6,966,135
Quality Restaurant	250.99	263.31	201.36	291,388	291,388
Strip Mall	326.34	309.56	150.43	460,185	460,185
Total	8,378.89	4,810.75	4,795.73	13,671,188	13,671,188

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
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
Enclosed Parking with Elevator	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
Fast Food Restaurant w/o Drive Thru	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
General Office Building	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
Health Club	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
Quality Restaurant	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
Strip Mall	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720

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	1,304.5588	1,304.5588	0.1305	0.0270	1,315.8635
NaturalGas Mitigated	0.0544	0.4949	0.4157	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	538.7825	538.7825	0.0103	9.8800e-003	541.9842
NaturalGas Unmitigated	0.0544	0.4949	0.4157	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	538.7825	538.7825	0.0103	9.8800e-003	541.9842

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					
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
Fast Food Restaurant w/o Drive Thru	311820	1.6800e-003	0.0153	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6399	16.6399	3.2000e-004	3.1000e-004	16.7388
General Office Building	5.04196e+006	0.0272	0.2472	0.2076	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	269.0582	269.0582	5.1600e-003	4.9300e-003	270.6571
Health Club	3.99019e+006	0.0215	0.1956	0.1643	1.1700e-003		0.0149	0.0149		0.0149	0.0149	0.0000	212.9315	212.9315	4.0800e-003	3.9000e-003	214.1969
Quality Restaurant	727580	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	38.8264	38.8264	7.4000e-004	7.1000e-004	39.0572
Strip Mall	24856.6	1.3000e-004	1.2200e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3264	1.3264	3.0000e-005	2.0000e-005	1.3343
Total		**0.0544**	**0.4949**	**0.4157**	**2.9600e-003**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**538.7825**	**538.7825**	**0.0103**	**9.8700e-003**	**541.9842**

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					
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
Fast Food Restaurant w/o Drive Thru	311820	1.6800e-003	0.0153	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6399	16.6399	3.2000e-004	3.1000e-004	16.7388
General Office Building	5.04196e+006	0.0272	0.2472	0.2076	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	269.0582	269.0582	5.1600e-003	4.9300e-003	270.6571
Health Club	3.99019e+006	0.0215	0.1956	0.1643	1.1700e-003		0.0149	0.0149		0.0149	0.0149	0.0000	212.9315	212.9315	4.0800e-003	3.9000e-003	214.1969
Quality Restaurant	727580	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	38.8264	38.8264	7.4000e-004	7.1000e-004	39.0572
Strip Mall	24856.6	1.3000e-004	1.2200e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3264	1.3264	3.0000e-005	2.0000e-005	1.3343
Total		**0.0544**	**0.4949**	**0.4157**	**2.9600e-003**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**538.7825**	**538.7825**	**0.0103**	**9.8700e-003**	**541.9842**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.9007e+006	381.5633	0.0382	7.8900e-003	384.8697
Fast Food Restaurant w/o Drive Thru	49080	6.4561	6.5000e-004	1.3000e-004	6.5120
General Office Building	5.49164e+006	722.3801	0.0722	0.0150	728.6399
Health Club	1.24939e+006	164.3471	0.0164	3.4000e-003	165.7713
Quality Restaurant	114520	15.0642	1.5100e-003	3.1000e-004	15.1947
Strip Mall	112117	14.7480	1.4700e-003	3.1000e-004	14.8758

Total		**1,304.5588**	**0.1305**	**0.0270**	**1,315.8635**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Mitigated	2.1455	1.5000e-004	0.0163	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338
Unmitigated	2.1455	1.5000e-004	0.0163	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5100e-003	1.5000e-004	0.0163	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338
Total	**2.1455**	**1.5000e-004**	**0.0163**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0317**	**0.0317**	**8.0000e-005**	**0.0000**	**0.0338**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5100e-003	1.5000e-004	0.0163	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338
Total	**2.1455**	**1.5000e-004**	**0.0163**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0317**	**0.0317**	**8.0000e-005**	**0.0000**	**0.0338**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	88.5447	0.0869	0.0521	106.2471
Unmitigated	88.5447	0.0869	0.0521	106.2471

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.455301 / 0.0290617	0.4985	5.9000e-004	3.6000e-004	0.6197
General Office Building	54.742 / 33.5515	73.7787	0.0721	0.0432	88.4681
Health Club	8.94599 / 5.48303	12.0570	0.0118	7.0700e-003	14.4575
Quality Restaurant	1.06237 / 0.0678107	1.1633	1.3700e-003	8.3000e-004	1.4460
Strip Mall	0.777021 / 0.476239	1.0472	1.0200e-003	6.1000e-004	1.2557

Total		**88.5447**	**0.0869**	**0.0521**	**106.2471**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.455301 / 0.0290617	0.4985	5.9000e-004	3.6000e-004	0.6197
General Office Building	54.742 / 33.5515	73.7787	0.0721	0.0432	88.4681
Health Club	8.94599 / 5.48303	12.0570	0.0118	7.0700e-003	14.4575
Quality Restaurant	1.06237 / 0.0678107	1.1633	1.3700e-003	8.3000e-004	1.4460
Strip Mall	0.777021 / 0.476239	1.0472	1.0200e-003	6.1000e-004	1.2557
Total		**88.5447**	**0.0869**	**0.0521**	**106.2471**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	239.5496	14.1570	0.0000	593.4741
Unmitigated	239.5496	14.1570	0.0000	593.4741

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	17.28	3.5077	0.2073	0.0000	8.6901
General Office Building	286.44	58.1447	3.4363	0.0000	144.0511
Health Club	862.18	175.0148	10.3431	0.0000	433.5916
Quality Restaurant	3.19	0.6475	0.0383	0.0000	1.6043
Strip Mall	11.01	2.2349	0.1321	0.0000	5.5370
Total		**239.5496**	**14.1570**	**0.0000**	**593.4741**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

Fast Food Restaurant w/o Drive Thru	17.28	3.5077	0.2073	0.0000	8.6901
General Office Building	286.44	58.1447	3.4363	0.0000	144.0511
Health Club	862.18	175.0148	10.3431	0.0000	433.5916
Quality Restaurant	3.19	0.6475	0.0383	0.0000	1.6043
Strip Mall	11.01	2.2349	0.1321	0.0000	5.5370
Total		**239.5496**	**14.1570**	**0.0000**	**593.4741**

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	2	0	50	1340	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)	0.1100	0.4917	0.2804	5.3000e-004		0.0162	0.0162		0.0162	0.0162	0.0000	51.0268	51.0268	7.1500e-003	0.0000	51.2057
Total	**0.1100**	**0.4917**	**0.2804**	**5.3000e-004**		**0.0162**	**0.0162**		**0.0162**	**0.0162**	**0.0000**	**51.0268**	**51.0268**	**7.1500e-003**	**0.0000**	**51.2057**

11.0 Vegetation

3896 Stevens Creek Blvd Operational AQ/GHG 2030 - Entire Project

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	308.00	1000sqft	4.80	308,000.00	0
Enclosed Parking with Elevator	1,300.00	Space	0.00	495,000.00	0
Fast Food Restaurant w/o Drive Thru	1.50	1000sqft	0.00	1,500.00	0
Health Club	151.26	1000sqft	0.00	151,258.00	0
Quality Restaurant	3.50	1000sqft	0.00	3,500.00	0
Strip Mall	10.49	1000sqft	0.00	10,488.00	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)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 290 rate

Land Use - Office, health club, retail, resturant (quality & fast-food to match with traffic) and 1,300 parking spaces on 4.8-acres

Construction Phase - Operational Model, No Construction

Off-road Equipment - Project applicant equipment list

Off-road Equipment - No Construction Equipment

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Trip gens with reductions (no pass-by)

Energy Use -

Water And Wastewater - 100% aerobic

Construction Off-road Equipment Mitigation -

Energy Mitigation - Accounting for 2020 Reach Code

Stationary Sources - Emergency Generators and Fire Pumps - 2x 1,000 kW generators, estimating approximtely 1340 HP

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	PhaseEndDate	2/7/2020	2/2/2020
tblLandUse	LandUseSquareFeet	520,000.00	495,000.00
tblLandUse	LandUseSquareFeet	10,490.00	10,488.00
tblLandUse	LotAcreage	7.07	4.80
tblLandUse	LotAcreage	11.70	0.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	LotAcreage	3.47	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	0.24	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,340.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	ST_TR	696.00	605.27
tblVehicleTrips	ST_TR	2.46	1.80

tblVehicleTrips	ST_TR	20.87	18.35
tblVehicleTrips	ST_TR	94.36	75.23
tblVehicleTrips	ST_TR	42.04	29.51
tblVehicleTrips	SU_TR	500.00	434.82
tblVehicleTrips	SU_TR	1.05	0.77
tblVehicleTrips	SU_TR	26.73	23.50
tblVehicleTrips	SU_TR	72.16	57.53
tblVehicleTrips	SU_TR	20.43	14.34
tblVehicleTrips	WD_TR	716.00	622.67
tblVehicleTrips	WD_TR	11.03	8.08
tblVehicleTrips	WD_TR	32.93	28.95
tblVehicleTrips	WD_TR	89.95	71.71
tblVehicleTrips	WD_TR	44.32	31.11
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00

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	2.1455	1.5000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338
Energy	0.0544	0.4949	0.4157	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	1,843.3413	1,843.3413	0.1408	0.0369	1,857.8477
Mobile	1.0227	4.3666	10.7914	0.0447	5.0825	0.0306	5.1130	1.3602	0.0284	1.3886	0.0000	4,117.9094	4,117.9094	0.1229	0.0000	4,120.9811
Stationary	0.1100	0.4917	0.2804	5.3000e-004		0.0162	0.0162		0.0162	0.0162	0.0000	51.0268	51.0268	7.1500e-003	0.0000	51.2057
Waste						0.0000	0.0000		0.0000	0.0000	239.5496	0.0000	239.5496	14.1570	0.0000	593.4741
Water						0.0000	0.0000		0.0000	0.0000	23.3448	65.1999	88.5447	0.0869	0.0521	106.2471
Total	**3.3326**	**5.3534**	**11.5037**	**0.0482**	**5.0825**	**0.0844**	**5.1669**	**1.3602**	**0.0822**	**1.4424**	**262.8944**	**6,077.5091**	**6,340.4035**	**14.5147**	**0.0890**	**6,729.7893**

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	2.1455	1.5000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338

Energy	0.0544	0.4949	0.4157	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	538.7825	538.7825	0.0103	9.8800e-003	541.9842
Mobile	1.0227	4.3666	10.7914	0.0447	5.0825	0.0306	5.1130	1.3602	0.0284	1.3886	0.0000	4,117.9094	4,117.9094	0.1229	0.0000	4,120.98
Stationary	0.1100	0.4917	0.2804	5.3000e-004		0.0162	0.0162		0.0162	0.0162	0.0000	51.0268	51.0268	7.1500e-003	0.0000	51.2057
Waste						0.0000	0.0000		0.0000	0.0000	239.5496	0.0000	239.5496	14.1570	0.0000	593.4741
Water						0.0000	0.0000		0.0000	0.0000	23.3448	65.1999	88.5447	0.0869	0.0521	106.2471
Total	**3.3326**	**5.3534**	**11.5037**	**0.0482**	**5.0825**	**0.0844**	**5.1669**	**1.3602**	**0.0822**	**1.4424**	**262.8944**	**4,772.95**	**5,035.84**	**14.3843**	**0.062**	**5,413.93**

	ROG	NOx	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**	**21.47**	**20.58**	**0.90**	**30.33**	**19.55**

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	1.0227	4.3666	10.7914	0.0447	5.0825	0.0306	5.1130	1.3602	0.0284	1.3886	0.0000	4,117.9094	4,117.9094	0.1229	0.0000	4,120.9811
Unmitigated	1.0227	4.3666	10.7914	0.0447	5.0825	0.0306	5.1130	1.3602	0.0284	1.3886	0.0000	4,117.9094	4,117.9094	0.1229	0.0000	4,120.9811

4.2 Trip Summary Information

	Average Daily Trip Rate	Unmitigated	Mitigated

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	934.01	907.91	652.23	1,435,223	1,435,223
General Office Building	2,488.64	554.40	237.16	4,518,258	4,518,258
Health Club	4,378.92	2,775.58	3554.56	6,966,135	6,966,135
Quality Restaurant	250.99	263.31	201.36	291,388	291,388
Strip Mall	326.34	309.56	150.43	460,185	460,185
Total	8,378.89	4,810.75	4,795.73	13,671,188	13,671,188

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
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
Enclosed Parking with Elevator	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Fast Food Restaurant w/o Drive Thru	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
General Office Building	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Health Club	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Quality Restaurant	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Strip Mall	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651

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	1,304.5588	1,304.5588	0.1305	0.0270	1,315.8635
NaturalGas Mitigated	0.0544	0.4949	0.4157	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	538.7825	538.7825	0.0103	9.8800e-003	541.9842
NaturalGas Unmitigated	0.0544	0.4949	0.4157	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	538.7825	538.7825	0.0103	9.8800e-003	541.9842

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					
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
Fast Food Restaurant w/o Drive Thru	311820	1.6800e-003	0.0153	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6399	16.6399	3.2000e-004	3.1000e-004	16.7388
General Office Building	5.04196e+006	0.0272	0.2472	0.2076	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	269.0582	269.0582	5.1600e-003	4.9300e-003	270.6571
Health Club	3.99019e+006	0.0215	0.1956	0.1643	1.1700e-003		0.0149	0.0149		0.0149	0.0149	0.0000	212.9315	212.9315	4.0800e-003	3.9000e-003	214.1969
Quality Restaurant	727580	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	38.8264	38.8264	7.4000e-004	7.1000e-004	39.0572
Strip Mall	24856.6	1.3000e-004	1.2200e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3264	1.3264	3.0000e-005	2.0000e-005	1.3343
Total		**0.0544**	**0.4949**	**0.4157**	**2.9600e-003**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**538.7825**	**538.7825**	**0.0103**	**9.8700e-003**	**541.9842**

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					
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
Fast Food Restaurant w/o Drive Thru	311820	1.6800e-003	0.0153	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.6399	16.6399	3.2000e-004	3.1000e-004	16.7388
General Office Building	5.04196e+006	0.0272	0.2472	0.2076	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	269.0582	269.0582	5.1600e-003	4.9300e-003	270.6571
Health Club	3.99019e+006	0.0215	0.1956	0.1643	1.1700e-003		0.0149	0.0149		0.0149	0.0149	0.0000	212.9315	212.9315	4.0800e-003	3.9000e-003	214.1969
Quality Restaurant	727580	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	38.8264	38.8264	7.4000e-004	7.1000e-004	39.0572
Strip Mall	24856.6	1.3000e-004	1.2200e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3264	1.3264	3.0000e-005	2.0000e-005	1.3343
Total		**0.0544**	**0.4949**	**0.4157**	**2.9600e-003**		**0.0376**	**0.0376**		**0.0376**	**0.0376**	**0.0000**	**538.7825**	**538.7825**	**0.0103**	**9.8700e-003**	**541.9842**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.9007e+006	381.5633	0.0382	7.8900e-003	384.8697
Fast Food Restaurant w/o Drive Thru	49080	6.4561	6.5000e-004	1.3000e-004	6.5120
General Office Building	5.49164e+006	722.3801	0.0722	0.0150	728.6399
Health Club	1.24939e+006	164.3471	0.0164	3.4000e-003	165.7713
Quality Restaurant	114520	15.0642	1.5100e-003	3.1000e-004	15.1947

Strip Mall	112117	14.7480	1.4700e-003	3.1000e-004	14.8758
Total		**1,304.5588**	**0.1305**	**0.0270**	**1,315.8635**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Category	tons/yr										MT/yr					
Mitigated	2.1455	1.5000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338
Unmitigated	2.1455	1.5000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4800e-003	1.5000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338
Total	**2.1455**	**1.5000e-004**	**0.0162**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0317**	**0.0317**	**8.0000e-005**	**0.0000**	**0.0338**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8861					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4800e-003	1.5000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0317	0.0317	8.0000e-005	0.0000	0.0338

Total	**2.1455**	**1.5000e-004**	**0.0162**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0317**	**0.0317**	**8.0000e-005**	**0.0000**	**0.0338**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	88.5447	0.0869	0.0521	106.2471
Unmitigated	88.5447	0.0869	0.0521	106.2471

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.455301 / 0.0290617	0.4985	5.9000e-004	3.6000e-004	0.6197
General Office Building	54.742 / 33.5515	73.7787	0.0721	0.0432	88.4681
Health Club	8.94599 / 5.48303	12.0570	0.0118	7.0700e-003	14.4575
Quality Restaurant	1.06237 / 0.0678107	1.1633	1.3700e-003	8.3000e-004	1.4460

Strip Mall	0.777021 / 0.476239	1.0472	1.0200e-003	6.1000e-004	1.2557
Total		**88.5447**	**0.0869**	**0.0521**	**106.2471**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.455301 / 0.0290617	0.4985	5.9000e-004	3.6000e-004	0.6197
General Office Building	54.742 / 33.5515	73.7787	0.0721	0.0432	88.4681
Health Club	8.94599 / 5.48303	12.0570	0.0118	7.0700e-003	14.4575
Quality Restaurant	1.06237 / 0.0678107	1.1633	1.3700e-003	8.3000e-004	1.4460
Strip Mall	0.777021 / 0.476239	1.0472	1.0200e-003	6.1000e-004	1.2557
Total		**88.5447**	**0.0869**	**0.0521**	**106.2471**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	239.5496	14.1570	0.0000	593.4741
Unmitigated	239.5496	14.1570	0.0000	593.4741

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	17.28	3.5077	0.2073	0.0000	8.6901
General Office Building	286.44	58.1447	3.4363	0.0000	144.0511
Health Club	862.18	175.0148	10.3431	0.0000	433.5916
Quality Restaurant	3.19	0.6475	0.0383	0.0000	1.6043
Strip Mall	11.01	2.2349	0.1321	0.0000	5.5370
Total		**239.5496**	**14.1570**	**0.0000**	**593.4741**

Mitigated

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

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	17.28	3.5077	0.2073	0.0000	8.6901
General Office Building	286.44	58.1447	3.4363	0.0000	144.0511
Health Club	862.18	175.0148	10.3431	0.0000	433.5916
Quality Restaurant	3.19	0.6475	0.0383	0.0000	1.6043
Strip Mall	11.01	2.2349	0.1321	0.0000	5.5370
Total		**239.5496**	**14.1570**	**0.0000**	**593.4741**

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	2	0	50	1340	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)	0.1100	0.4917	0.2804	5.3000e-004		0.0162	0.0162		0.0162	0.0162	0.0000	51.0268	51.0268	7.1500e-003	0.0000	51.2057
Total	**0.1100**	**0.4917**	**0.2804**	**5.3000e-004**		**0.0162**	**0.0162**		**0.0162**	**0.0162**	**0.0000**	**51.0268**	**51.0268**	**7.1500e-003**	**0.0000**	**51.2057**

11.0 Vegetation

Attachment 3: Construction and Operation Health Risk Calculations

3896 Stevens Creek Boulevard, 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)
				DPM Emissions			Modeled Area	
				(lb/yr)	(lb/hr)	(g/s)	(m^2)	
2020	Demolition	0.0256	DPM Area	51.2	0.01170	1.5E-03	20,499	7.19E-08
2020	Office Construction	0.1944	Point	225	388.8	0.08876	1.12E-02	4.97E-05
2021	Office Construction	0.0448	Point	225	89.6	0.02046	2.58E-03	1.15E-05
2021	Health Club Construction	0.2302	Point	176	460.4	0.10511	1.32E-02	7.53E-05
2022	Office Construction	0.0047	Point	225	9.4	0.00214	2.70E-04	1.20E-06
2022	Health Club Construction	0.0283	Point	176	56.6	0.01292	1.63E-03	9.25E-06
Total		***0.5280***			***1005***	***0.2309***		

Construction Hours

hr/day =	12
days/yr =	365
hours/year =	4380

PM2.5 Fugitive Construction Emissions and Modeling Emission Rates

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	Emission Rate $g/s/m^2$
2020	Demolition	FUG	0.0039	7.7	0.00176	2.22E-04	20,499	1.08E-08
2020	Office Construction	FUG	0.0348	69.7	0.01591	2.00E-03	11,397	1.76E-07
2021	Office Construction	FUG	0.0459	91.8	0.02096	2.64E-03	11,397	2.32E-07
2021	Health Club Construction	FUG	0.0261	52.2	0.01192	1.50E-03	9,103	1.65E-07
2022	Office Construction	FUG	0.0004	0.8	0.00018	2.30E-05	11,397	2.02E-09
2022	Health Club Construction	FUG	0.0010	1.9	0.00044	5.58E-05	9,103	6.13E-09
Total			***0.1121***	***224***	***0***	***0.0064***		

Construction Hours

hr/day =	12
days/yr =	365
hours/year =	4380

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)
				DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	
2020	Demolition	0.0136	DPM Area	27.2	0.00621	7.8E-04	20,499	3.82E-08
2020	Office Construction	0.0053	Point	225	10.6	0.00242	3.05E-04	1.36E-06
2021	Office Construction	0.0052	Point	225	10.4	0.00237	2.99E-04	1.33E-06
2021	Health Club Construction	0.0173	Point	176	34.6	0.00790	9.95E-04	5.66E-06
2022	Office Construction	0.0008	Point	225	1.6	0.00037	4.66E-05	2.07E-07
2022	Health Club Construction	0.0104	Point	176	20.8	0.00475	5.98E-04	3.40E-06
Total		***0.0526***			***78***	***0.0186***		

Construction Hours

hr/day =	12
days/yr =	365
hours/year =	4380

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)	Emission Rate $g/s/m^2$
2020	Demolition	FUG	0.0010	1.9	0.00044	5.58E-05	20,499	2.72E-09
2020	Office Construction	FUG	0.0150	30.1	0.00686	8.65E-04	11,397	7.59E-08
2021	Office Construction	FUG	0.0046	9.2	0.00210	2.64E-04	11,397	2.32E-08
2021	Health Club Construction	FUG	0.0083	16.7	0.00381	4.80E-04	9,103	5.27E-08
2022	Office Construction	FUG	0.0004	0.8	0.00018	2.30E-05	11,397	2.02E-09
2022	Health Club Construction	FUG	0.0010	1.9	0.00044	5.58E-05	9,103	6.13E-09
Total			***0.0303***	***61***	***0***	***0.0017***		

Construction Hours

hr/day =	12
days/yr =	365
hours/year =	4380

3896 Stevens Creek Boulevard, 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	(-)	($\mu g/m^3$)
2020	0.3077	0.0926	54.91	0.88	0.062	0.40
2021	0.1753	0.0225	28.79	0.50	0.035	0.31
2022	0.0204	0.0013	0.53	0.06	0.004	0.03
Total	-	-	**84.2**	**1.4**	-	-
Maximum	0.3077	0.0926	-	-	**0.062**	**0.40**

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	(-)	($\mu g/m^3$)
2020	0.0278	0.0391	4.96	0.08	0.006	0.07
2021	0.0157	0.0186	2.58	0.05	0.003	0.03
2022	0.0062	0.0018	0.16	0.02	0.001	0.01
Total	-	-	**7.7**	**0.1**	-	-
Maximum	0.0278	0.0391	-	-	**0.006**	**0.07**

3896 Stevens Creek Boulevard, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated Emissions
Impacts at Off-Site Receptors-4.5 meter receptor height

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

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

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

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

Values

	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	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2020	0.3077	10	4.36	2020	0.3077	-	-			
1	1	0 - 1	2020	0.3077	10	50.54	2020	0.3077	1	0.88	0.062	0.0926	0.400
2	1	1 - 2	2021	0.1753	10	28.79	2021	0.1753	1	0.50	0.035	0.1366	0.312
3	1	2 - 3	2022	0.0204	3	0.53	2022	0.0204	1	0.06	0.004	0.0121	0.033
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00	**0.062**	**0.137**	**0.400**
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**84.2**				**1.45**			

* Third trimester of pregnancy

3896 Stevens Creek Boulevard, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Mitigated Emissions
Impacts at Off-Site Receptors-4.5 meter

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	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2020	0.0278	10	0.39	2020	0.0278	-	-			
1	1	0 - 1	2020	0.0278	10	4.56	2020	0.0278	1	0.08	0.006	0.0391	0.067
2	1	1 - 2	2021	0.0157	10	2.58	2021	0.0157	1	0.05	0.003	0.0186	0.034
3	1	2 - 3	2022	0.0062	3	0.16	2022	0.0062	1	0.02	0.001	0.0018	0.008
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00	**0.006**	**0.039**	**0.067**
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**7.7**				**0.14**			

* Third trimester of pregnancy

3896 Stevens Creek Boulevard, San Jose

Standby Emergency Generator Impacts

Off-site Sensitive Receptors

DPM Emission Rates			
	DPM Emissions per Generator		
	Max Daily	Annual	
Source Type	(lb/day)	(lb/year)	
2x 1,000 kW (1,340 hp) Generators	0.044	16.20	0.044384
CalEEMod DPM Emissions	0.0081	tons/year	

Modeling Information		
Model	AERMOD	
Source	Diesel Generator Engine	
Source Type	Point	
Meteorological Data	2006-2010 BAAQMD San Jose Meteorological Data	
Point Source Stack Parameters		
Generator Engine Size (hp)	1340	
Stack Height (ft)	12.00	near ground level release
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	

* AERMOD default

**BAAQMD default generator parameters

3896 Stevens Creek Boulevard, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors-4.5 meter receptor height
Impact at Project MEI (27-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^{-6} = Conversion factor

	Infant/Child				Adult
Age --> / Parameter	3rd Trimester	0 - 2	2 - 9	2 - 16	16 - 30
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: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
Construction	0	0.25	-0.25 - 0*	2020	0.0000	10	0.00
	1	1	0 - 1	2020	0.0000	10	0.00
	2	1	1 - 2	2021	0.0000	10	0.00
	3	1	2 - 3	2022	0.0000	3	0.00
Operation	4	1	3 - 4	2023	0.0014	3	0.04
	5	1	4 - 5	2024	0.0014	3	0.04
	6	1	5 - 6	2025	0.0014	3	0.04
	7	1	6 - 7	2026	0.0014	3	0.04
	8	1	7 - 8	2027	0.0014	3	0.04
	9	1	8 - 9	2028	0.0014	3	0.04
	10	1	9 - 10	2029	0.0014	3	0.04
	11	1	10 - 11	2030	0.0014	3	0.04
	12	1	11 - 12	2031	0.0014	3	0.04
	13	1	12 - 13	2032	0.0014	3	0.04
	14	1	13 - 14	2033	0.0014	3	0.04
	15	1	14 - 15	2034	0.0014	3	0.04
	16	1	15 - 16	2035	0.0014	3	0.04
	17	1	16-17	2036	0.0014	1	0.00
	18	1	17-18	2037	0.0014	1	0.00
	19	1	18-19	2038	0.0014	1	0.00
	20	1	19-20	2039	0.0014	1	0.00
	21	1	20-21	2040	0.0014	1	0.00
	22	1	21-22	2041	0.0014	1	0.00
	23	1	22-23	2042	0.0014	1	0.00
	24	1	23-24	2043	0.0014	1	0.00
	25	1	24-25	2044	0.0014	1	0.00
	26	1	25-26	2045	0.0014	1	0.00
	27	1	26-27	2046	0.0014	1	0.00
	28	1	27-28	2047	0.0014	1	0.00
	29	1	28-29	2048	0.0014	1	0.00
	30	1	29-30	2049	0.0014	1	0.00
Total Increased Cancer Risk							**0.53**

* Third trimester of pregnancy

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	East
Distance from Roadway	760 feet
Annual Average Daily Traffic (ADT)	5,530

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

0.44 (per million)

Saratoga Ave

Project Traffic Conditions

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
0.300 (per million)	**0.152** (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.51
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	North
Distance from Roadway	530 feet
Annual Average Daily Traffic (ADT)	930

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

0.11 (per million)

Kiely Boulevard

Project Traffic Conditions

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
0.078 (per million)	**0.039** (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.51
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara	
Roadway Direction	East-West	
Side of the Roadway	South	
Distance from Roadway	480	feet
Annual Average Daily Traffic (ADT)	2,165	

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

0.25 (per million)

Stevens Creek Blvd

Project Traffic Conditions

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
0.174 (per million)	**0.088** (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.51
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara	
Roadway Direction	North-South	
Side of the Roadway	East	
Distance from Roadway	25	feet
Annual Average Daily Traffic (ADT)	2,165	

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

1.94 (per million)

Northlake Drive

Project Traffic Conditions

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018	Adjusted for Expsoure Duration (Years)
1.33 (per million)	**0.67** (per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust. 0.505
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

3896 Stevens Creek Boulevard, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction & Operation - Mitigated Emissions
Impacts at Off-Site Receptors-1.5 meter

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 - 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

			Infant/Child - Exposure Information			Infant/Child	Adult - Exposure Information			Adult
							Modeled			
Exposure	Exposure Duration		DPM Conc (ug/m3)		Age Sensitivity	Cancer Risk	DPM Conc (ug/m3)		Age Sensitivity	Cancer Risk
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)
0	0.25	-0.25 - 0*	2020	0.0000	10	0.00	2020	0.0000	-	-
1	1	0 - 1	2020	0.0000	10	0.00	2020	0.0000	1	0.00
2	1	1 - 2	2021	0.0000	10	0.00	2021	0.0000	1	0.00
3	1	2 - 3	2022	0.0000	3	0.00	2022	0.0000	1	0.00
4	1	3 - 4	2023	1.0000	3	25.86	2023	1.0000	1	2.87
5	1	4 - 5	2024	1.0000	3	25.86	2024	1.0000	1	2.87
6	1	5 - 6	2025	1.0000	3	25.86	2025	1.0000	1	2.87
7	1	6 - 7	2026	1.0000	3	25.86	2026	1.0000	1	2.87
8	1	7 - 8	2027	1.0000	3	25.86	2027	1.0000	1	2.87
9	1	8 - 9	2028	1.0000	3	25.86	2028	1.0000	1	2.87
10	1	9 - 10	2029	1.0000	3	25.86	2029	1.0000	1	2.87
11	1	10 - 11	2030	1.0000	3	25.86	2030	1.0000	1	2.87
12	1	11 - 12	2031	1.0000	3	25.86	2031	1.0000	1	2.87
13	1	12 - 13	2032	1.0000	3	25.86	2032	1.0000	1	2.87
14	1	13 - 14	2033	1.0000	3	25.86	2033	1.0000	1	2.87
15	1	14 - 15	2034	1.0000	3	25.86	2034	1.0000	1	2.87
16	1	15 - 16	2035	1.0000	3	25.86	2035	1.0000	1	2.87
17	1	16-17	2036	1.0000	1	2.87	2036	1.0000	1	2.87
18	1	17-18	2037	1.0000	1	2.87	2037	1.0000	1	2.87
19	1	18-19	2038	1.0000	1	2.87	2038	1.0000	1	2.87
20	1	19-20	2039	1.0000	1	2.87	2039	1.0000	1	2.87
21	1	20-21	2040	1.0000	1	2.87	2040	1.0000	1	2.87
22	1	21-22	2041	1.0000	1	2.87	2041	1.0000	1	2.87
23	1	22-23	2042	1.0000	1	2.87	2042	1.0000	1	2.87
24	1	23-24	2043	1.0000	1	2.87	2043	1.0000	1	2.87
25	1	24-25	2044	1.0000	1	2.87	2044	1.0000	1	2.87
26	1	25-26	2045	1.0000	1	2.87	2045	1.0000	1	2.87
27	1	26-27	2046	1.0000	1	2.87	2046	1.0000	1	2.87
28	1	27-28	2047	1.0000	1	2.87	2047	1.0000	1	2.87
29	1	28-29	2048	1.0000	1	2.87	2048	1.0000	1	2.87
30	1	29-30	2049	1.0000	1	2.87	2049	1.0000	1	2.87
Total Increased Cancer Risk						**376.3**				**57497.52**

* Third trimester of pregnancy

Adjusted Exposure	376.3419452
Lifetime Risk	744.874773
Factor	0.5052419

Attachment 4: Screening Community Risk Calculations

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

DISTRICT RESPONSE TO REQUEST

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	**11/27/2019**
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin
Phone	707-794-0400 ext. 111
Email	[illegible]odkin.com
Project Name	Boulevard
Address	Boulevard
City	San Jose
County	Santa Clara
commercial, mixed use, industrial, etc.)	Commercial
Project Size (# of units or building square feet)	

Comments:

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

1. Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in **Table B** blue section only.

6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to 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
TBD	22234	MJ Coffee, Inc	3787 Stevens Creek Blvd					Coffee Roaster		Emissions file attached.
TBD	14050	The Garden City Cafe & Casino	360 So Saratoga Ave							Demolished
TBD	104141	ARCO Facility #02134-ANACLETO M PONCE JR	401 Saratoga Ave					GDF		Max permitted throughput 2019: 5,100,000 gallons/year
TBD	106785	Chevron	404 Saratoga Ave					GDF		Max permitted throughput 2019: 18,700,000 gallons/year

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
    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
    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

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

ADJUSTED RISKS

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	**11/27/2019**
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin
Phone	707-794-0400 ext. 111
Email	[illegible]odkin.com
Project Name	Boulevard
Address	Boulevard
City	San Jose
County	Santa Clara
commercial, mixed use, industrial, etc.)	Commercial
Project Size (# of units or building square feet)	
Comments:	

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

1. Complete all the contact and project information requested 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	Distance	Cancer Risk	PM2.5	HI
TBD	22234	MJ Coffee, Inc	3787 Stevens Creek Blvd					Coffee Roaster		Emissions file attached.	1000-ft	<0.1	0.02	<0.01
TBD	14050	The Garden City Cafe & Casino	360 So Saratoga Ave							Demolished				
TBD	104141	ARCO Facility #02134-ANACLETO M PONCE JR	401 Saratoga Ave					GDF		Max permitted throughput 2019: 5,100,000 gallons/year	1000-ft	0.1	-	<0.01
TBD	106785	Chevron	404 Saratoga Ave					GDF		Max permitted throughput 2019: 18,700,000 gallons/year	800-ft	0.3	-	<0.01

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
    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
    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

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	East
Distance from Roadway	760 feet
Annual Average Daily Traffic (ADT)	19,800

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

1.57 (per million)

Saratoga Ave

Background + Project Traffic Conditions

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018

1.08

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggrag 2018 that are 46% of EMFAC2011 for 2014. TOG rates are 56% of EMFAC2011 year 2014 rates. T light- and medium-duty vehciles traveling at 30 r Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	South
Distance from Roadway	480 feet
Annual Average Daily Traffic (ADT)	25,945

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

3.04 (per million)

Stevens Creek Blvd

Background + Project Traffic Conditions

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for EMFAC2014 for 2018

2.09

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.