4300 STEVENS CREEK BOULEVARD MIXED-USE PROJECT DRAFT AIR QUALITY ASSESSMENT

San Jose, California

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Introduction

The purpose of this report is to address air quality impacts associated with the proposed mixed-use residential development project at 4300 Stevens Creek Boulevard in San Jose, California. The project site includes parcels on both sides of Lopina Way, north of Albany Drive and south of Stevens Creek Boulevard, between the Stevens Creek Mazda and Stevens Creek Volkswagen dealerships. The project would demolish the existing office/commercial buildings and construct two seven-story residential buildings (Building C and Building D), a six-story office building (Building A), and a six-story parking garage (Building B). In addition, the project proposes to vacate the existing Lopina Way and relocate it to the eastern property line. The existing Lopina Way would be replaced with a landscaped promenade. The residential buildings would have a combined total of 582 residential units and would be located on the west side of the project site. Approximately 10,000 sf of ground-floor retail would be located within Building C with a retail courtyard along Stevens Creek Boulevard. Both buildings would have two levels of above-grade and one level of below-grade residential parking. On the east side of the site, an approximately 300,000 sf office building without outdoor courtyards and terraces on the second and fifth floors, and a six-story, above-grade parking garage is proposed.

Air pollutant emissions associated with construction and operation of the project were modeled. In addition, the potential construction health risk impacts to nearby sensitive receptors were evaluated along with the community risk impacts of existing toxic air contaminant (TAC) sources upon future project residences. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).

Setting

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

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

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. The most recent Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines were published in February of 2015.[1] See *Attachment 1* for a detailed description of the community risk modeling methodology used in this assessment.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors are residences south, southeast and southwest of the project site. Additional receptors (residences) are located further from the site to the north.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and

[1] 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.

automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the federal standards.

In the past decade the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_X and particulate matter (PM_{10} and $PM_{2.5}$) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_X emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[2]

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

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

State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.[3] In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

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

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

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

duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and $PM_{2.5}$ emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road, or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

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

Bay Area Air Quality Management District (BAAQMD)

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

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

The BAAQMD California Environmental Quality Act (*CEQA) Air Quality Guidelines*[4] were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD

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

believed air pollution emissions would cause significant environmental impacts under CEQA. The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1. The BAAQMD's adoption of significance thresholds contained in the 2011 *CEQA Air Quality Guidelines* was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). In December 2015, the Supreme Court determined that an analysis of the impacts of the environment on a project – known as "CEQA-in-reverse" – is only required under two limited circumstances: (1) when a statute provides an express legislative directive to consider such impacts; and (2) when a proposed project risks exacerbating environmental hazards or conditions that already exist (Cal. Supreme Court Case No. S213478). Though not necessarily a CEQA issue, the effect of existing TAC sources on future project receptors (residences) is analyzed to comply with the Clean Air Plan key goal of reducing population TAC exposure and protecting public health in the Bay Area as a planning consideration.

Table 1. Air Quality Significance Thresholds

Criteria Air Pollutant	**Construction Thresholds**	**Operational Thresholds**	
	Average Daily Emissions (lbs./day)	**Average Daily Emissions (lbs./day)**	**Annual Average Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	>10 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	

Note: ROG = reactive organic gases, 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.

Impacts and Mitigation Measures

Impact 1: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable State or federal ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

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.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod. CalEEMod provides annual 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. A construction build-out scenario, including equipment list and schedule, was developed based on information provided by the project applicant and CalEEMod defaults for a project of this type and size. The proposed project land uses were input into CalEEMod, which included 582 dwelling units entered as "Apartments Mid Rise," 10,000 sf entered as "Strip Mall"/retail, 300,000 sf entered as "General Office Building," and 2,043 spaces entered as "Enclosed Parking Structure." In addition, 35,000 cubic yards (cy) of soil off-haul is anticipated during the grading and excavation phase and 210,000 sf of building and materials demolition is expected. During the paving phase, 75 round-trip asphalt truck trips are anticipated. The project would be built out over a period of approximately 25 months beginning in May 2018, or an approximate 550 construction workdays (assuming 22 workdays per month).

Average daily emissions were computed for each phase by dividing the total construction emissions by the number of construction days. 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, estimated the construction period emissions would not exceed the BAAQMD significance thresholds. *Attachment 2* includes the CalEEMod input and output worksheets.

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*.

Table 2. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
2018	0.25 tons	2.99 tons	0.10 tons	0.09 tons
2019	3.28 tons	7.30 tons	0.21 tons	0.20 tons
2020	3.65 tons	0.75 tons	0.02 tons	0.02 tons
Total construction emissions (tons)	7.18 tons	11.04 tons	0.33 tons	0.31 tons
Average daily emissions (pounds)[1]	**26.1 lbs./day**	**40.1 lbs./day**	**1.2 lbs./day**	**1.1 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**
Notes: [1]Assumes 550 workdays.				

Operational Period Emissions

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

Land Uses

The project land uses were input to CalEEMod, as described above. An existing run was conducted, which consisted of 163,000 sf entered as "General Office Building."

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest the project could possibly be constructed and begin operating would be 2021. Emissions associated with build-out later than 2021 would be lower.

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates, which were input to the model using the daily trip generation rate provided in the project trip generation table, including trip reductions for internalization, proximity to transit, and retail pass-by. The default trip lengths and trip types specified by CalEEMod were used.

Energy

CalEEMod defaults for energy use were used, which include 2016 Title 24 Building Standards.

Other Inputs

Wood-burning stoves and fireplaces are not allowed in new development in the Bay Area, however it was assumed that residential units could contain gas-powered fireplaces. Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project.

Table 3. Operational Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2021 Project	5.87 tons	7.07 tons	5.46 tons	1.54 tons
Existing	1.02 tons	1.34 tons	1.01 tons	0.29 tons
Net Project Emissions	4.85 tons	5.73 tons	4.45 tons	1.25 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	**No**	**No**	**No**	**No**
Net Project Operational Emissions (*pounds/day*)	26.6 lbs.	31.4 lbs.	24.4 lbs.	6.8 lbs.
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**No**	**No**	**No**
[1] Assumes 365-day operation.				

As shown in Table 3, operational emissions would not exceed the BAAQMD significance thresholds. This would be considered a *less-than-significant* impact.

Mitigation Measure AQ-1: **Include basic 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. 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.

Impact 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

As discussed under Impact 1, the project would have emissions less than the BAAQMD thresholds for evaluating regional impacts related to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.[5]

Impact 3: Expose sensitive receptors to substantial pollutant concentrations?

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 introduce new sensitive receptors (residences) in the proximity of nearby TAC sources, such as Stevens Creek Boulevard traffic and stationary sources. Though not necessarily a CEQA issue, the effect of existing TAC sources on future project residences is analyzed to comply with the Clean Air Plan goal of reducing TAC exposure and protecting public health in the Bay Area. The project would not be

[5] For a land-use project type, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections with more than 44,000 vehicles per hour.

a substantial source of localized TACs. However, temporary project construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors.

Operational Community Risk Impacts

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors located within 1,000 feet of a project site. These sources include freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. For local roadways, BAAQMD considers roadways with traffic volumes of over 10,000 vehicles per day to have a potentially significant impact on a proposed project. A review of the project area identified several sources of TAC emissions, such as Stevens Creek Boulevard and two stationary sources that could affect the project site. Community risks from each source are discussed below.

Roadway TAC Impacts

Stevens Creek Boulevard

Since screening computations indicate increases in excess cancer risk at the project dwelling units closest to Stevens Creek Boulevard that would exceed significance thresholds, a refined analysis of the impacts of TACs and $PM_{2.5}$ to new sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from Stevens Creek Boulevard. Refined modeling of local roadways predicts lower and more accurate results, because project specific information is used in the modeling. This includes roadway orientation with respect to receptors (i.e., where dwelling units would be located with respect to traffic), emission estimates (i.e., based on traffic speeds and traffic mix), and meteorological conditions near the project.

The refined analysis of the impacts of TACs and $PM_{2.5}$ to new sensitive receptors is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from Stevens Creek Boulevard. This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on Stevens Creek Boulevard using the CARB EMFAC2014 emission factor model and local traffic volume of 27,860 average daily traffic (ADT) volume. The ADT was estimated from the peak p.m. hour forecast, assuming that ADT is ten times the peak hour volume. DPM emissions are projected to decrease in the future and are reflected in the EMFAC2014 emissions data.

Residential occupation of the project was assumed to begin in 2021 or thereafter. In order to estimate TAC and $PM_{2.5}$ emissions over a 30-year exposure period (2021-2050) for calculating increased cancer risks to new residents from traffic on Stevens Creek Boulevard, the EMFAC2014 model was used to develop vehicle emission factors for the year 2021. Year 2021 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated (30 years), since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions will decrease in the future.

The EMFAC2014 model was used to develop vehicle emission factors for the year 2021 using an estimated mix of cars and trucks. Stevens Creek Boulevard carries primarily cars and light-duty trucks. A truck mix of 3.51 percent was assumed based on BAAQMD recommendations for truck percentages on non-highway roads in Santa Clara County.[6] One-third of the trucks were assumed to be heavy duty trucks and two-thirds were assumed to be medium duty trucks. Default EMFAC2014 vehicle model fleet age distributions for Santa Clara County were assumed in calculating the emissions and the traffic volumes were assumed to increase one percent per year. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[7] which were then applied to the project area traffic volumes to obtain estimated hourly traffic volumes and emissions. For all hours of the day, other than during the two-hour peak a.m. and p.m. periods, and average speed of 40 mph was assumed for all vehicles. Average travel speeds during peak a.m. and p.m. periods were assumed to be 25 mph.

Emissions of total organic gases (TOG) from gasoline-powered vehicles were calculated using the EMFAC2014 model. These TOG emissions were then used in modeling the organic TACs (i.e., TACs associated with motor vehicle from TOG exhaust emissions and evaporative TOG emissions). TOG emissions from exhaust and for running evaporative loses from gasoline vehicles were calculated using EMFAC2014 default model values for Santa Clara County along with the traffic volumes and vehicle mixes.

$PM_{2.5}$ emissions for vehicles traveling on Stevens Creek Boulevard were modeled using the same basic modeling approach that was used for assessing TAC impacts. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in these emissions. The assessment involved, first, calculating $PM_{2.5}$ emission rates from traffic traveling on the roadway. These emissions were calculated using the EMFAC2014 model and traffic volumes and were calculated in the same manner as discussed above. $PM_{2.5}$ re-entrained dust emissions from vehicles traffic were calculated using CARB emission calculation procedures.[8]

Dispersion modeling of TAC and $PM_{2.5}$ emissions was conducted using the U.S. EPA AERMOD model, which is recommended by the BAAQMD for this type of analysis.[9] East and westbound traffic on Stevens Creek Boulevard within about 1,000 feet of the project site were evaluated with the model. A five-year data set (2006-2010) of hourly meteorological data from the San Jose Airport prepared for use with the AERMOD model by the BAAQMD was used for the modeling. Other inputs to the model included road geometry and elevations, hourly traffic emissions, and receptor locations and elevations. The modeling used receptors placed at the locations of the residential units on the first, second, and third floor levels of the proposed project. Receptor heights of 1.5 meters (5 feet), 4.9 meters (16 feet), and 8.5 meters (28 feet) were used to represent the breathing heights of residents on the first, second, and third floors.

[6] BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. may

[7] The Burden output from EMFAC2007, CARB's previous version of the EMFAC model, was used for this since the current web-based version of EMFAC2011 does not include Burden type output with hour by hour traffic volume information.

[8] CARB, 2014. *Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust*. Revised and updated, April 2014.

[9] BAAQMD, 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012.

The maximum DPM and annual $PM_{2.5}$ concentration occurred at a residential unit on the first floor near the eastern side of Building B. Figure 1 shows the project site area and proposed buildings, roadway segments modeled and residential receptor locations on the first floor level that were used in the modeling.

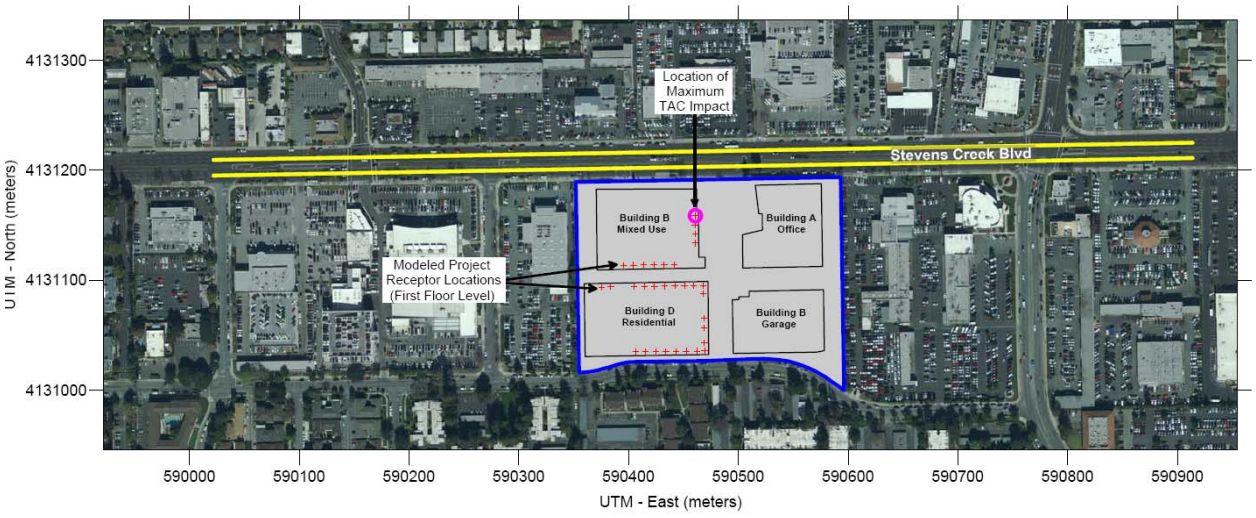
The maximum increased lifetime cancer risks, non-cancer health effects (health hazard index), and annual $PM_{2.5}$ concentrations for new residents at the project site were computed using modeled TAC and $PM_{2.5}$ concentrations and the methods and exposure parameters described in *Attachment 1* and shown in Table 4. In general, cancer risks will decrease with distance from the roadway and with height of the receptors.

Table 4. Maximum TAC Impacts from Stevens Creek Boulevard

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Chronic Hazard Index
Stevens Creek Boulevard: 1st Floor Maximum Impacts:	1.9	0.28	<0.01

The emission information, modeling results, and health risk calculations for the receptor with the maximum cancer risk from Stevens Creek Boulevard traffic are provided in *Attachment 3*.

Figure 1. Project Site, On-Site Sensitive Receptors, Roadway Segments Modeled and On-Site Receptor with Maximum TAC Impacts



Kiely Boulevard

For local roadways, BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Two adjustments were made to the cancer

risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates and (2) adjustment of cancer risk to reflect new OEHHA guidance described above. The calculator uses EMFAC2011 emission rates for the year 2014. Overall, emission rates will decrease by the time the project is constructed and occupied. The project is not likely to be occupied prior to 2021. 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 year 2018 or later. The predicted cancer risk was then adjusted using a factor of 1.3744 to account for new OEHHA guidance.[10]

The average daily traffic (ADT) on Kiely Boulevard was estimated to be approximately 12,690 based on the project traffic study's cumulative plus project conditions, and assuming that ADT is approximately ten times peak hour volume. Using the BAAQMD *Roadway Screening Analysis Calculator* for Santa Clara County for north-south directional roadways and at a distance of 525 feet west of the roadway, estimated cancer risk at the project site would be 0.6 per million and $PM_{2.5}$ concentration would be 0.02 $\mu g/m^3$, which would not exceed BAAQMD significance thresholds. Chronic or acute HI for the roadway would be below 0.03.

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 identified the location of two stationary sources and their estimated risk and hazard screening values. The 2012 estimated risk values were adjusted using a factor of 1.3744. This factor was provided by BAAQMD for use with their CEQA screening tools that are used to predict cancer risk.[11] The risk values were then adjusted with the appropriate distance multiplier values provided by BAAQMD. The values reported below reflect the above adjustments:

- Plant G4436, which is a gas dispensing facility operated by Tosco – Unocal #254832, located at 4185 Stevens Creek Boulevard, is about 775 feet northeast of the project site. At BAAQMD's direction, risk and $PM_{2.5}$ concentrations from the facility were adjusted based on BAAQMD's *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities*. According to the BAAQMD screening data (and adjusted for the 775-foot distance and 2015 OEHHA methodology), this facility would result in an adjusted lifetime cancer risk of 0.4 in one million, no $PM_{2.5}$ concentration, and <0.01 HI, which would all be below BAAQMD thresholds of significance.

- Plant 3721, which is an emergency back-up generator operated by Smythe European, located at 4500 Stevens Creek Boulevard, is about 300 feet west of the project site. At BAAQMD's direction, risk and $PM_{2.5}$ concentrations from the facility were adjusted based on BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines*. According to the BAAQMD screening data (and adjusted for the 300-foot distance and 2015 OEHHA methodology), this facility would result in an

[10] Correspondence with Alison Kirk, BAAQMD, November 23, 2015.
[11] Correspondence with Alison Kirk, BAAQMD, November 23, 2015.

adjusted lifetime cancer risk of 1.6 in one million, $PM_{2.5}$ concentration of <0.01 $\mu g/m^3$, and <0.01 HI, which would all be below BAAQMD thresholds of significance.

Combined Operational TAC Sources

Community risk impacts from combined sources upon the project are reported in Table 5. As shown in Table 5, risk from combined operational TAC sources at the project site would be below the BAAQMD cumulative thresholds of 100 in one million and 0.8 $\mu g/m^3$, respectively. Hazard index (HI) would also be cumulatively less than significant.

Table 5. Impacts from Combined TAC Sources at Project Site

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Stevens Creek Boulevard	1.9	0.28	<0.01
Kiely Boulevard	0.6	0.02	<0.03
Plant G4436, Tosco – Unocal #254832 4185 Stevens Creek Boulevard	0.4	--	<0.01
Plant 3721, Smythe European 4500 Stevens Creek Boulevard	1.6	<0.01	<0.01
Combined Sources	4.5	<0.31	<0.06
BAAQMD Threshold - Combined Sources	*100*	*0.8*	*10.0*

Project Construction Activity

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 employed to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-required best management practices.*

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. As discussed above, these exhaust air pollutant emissions would not be contribute substantially to existing or projected air quality violations. However, construction exhaust emissions may still pose community health risks for sensitive receptors such as nearby residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A community risk assessment of the project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and $PM_{2.5}$.[12] Emissions and dispersion modeling was conducted to estimate the on-site DPM concentrations resulting from project

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

construction at locations shown in Figure 2, so that lifetime cancer risks and non-cancer health effects could be evaluated.

On-Site Construction TAC Emissions

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment used for construction of the project and for the exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles) of 0.2957 tons (591 pounds) over the entire construction period. A trip length of one half mile was used to represent vehicle travel while at or near the construction site. For modeling purposes, it was assumed that these emissions from on-road vehicles would occur at the construction site. Fugitive dust $PM_{2.5}$ emissions were also computed and included in this analysis. The model estimates emissions of 0.1489 tons (298 pounds) of fugitive $PM_{2.5}$ over the construction period. *Attachment 2* includes the CalEEMod input and output worksheets and risk modeling calculations.

Dispersion Modeling

The EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[13] 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 6 meters (19.7 feet) 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 2 meters (6.6 feet) was used for the area source. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m., when the majority of construction activity would occur. Figure 2 shows the project site and nearby sensitive receptor (residences) locations where health impacts were evaluated.

The modeling used a 5-year meteorological data set (2006 – 2010) from the Mineta San Jose International Airport meteorological station prepared for use with the AERMOD model by the CARB. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2018 – 2020 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at the future sensitive receptors. Receptor height of 1.5 meters (4.9 feet) and 4.5 meters (14.7 feet) was used to represent the breathing height of nearby residences.

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

Cancer Risks

Results of this assessment indicate that the maximum excess residential cancer risks would be 49.4 in one million for an infant exposure and 0.9 in one million for an adult exposure. The maximally exposed individual (MEI) would be located at the first floor level of the receptor shown in Figure 2. The maximum residential excess cancer risk at the MEI would be greater than the BAAQMD significance threshold of 10 in one million. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this risk to below the BAAQMD threshold of significance.*

Predicted Annual $PM_{2.5}$ Concentration

The maximum-modeled annual $PM_{2.5}$ concentration, which is based on combined exhaust and fugitive dust emissions, was 0.26 $\mu g/m^3$ and would occur at the cancer risk MEI. The maximum annual $PM_{2.5}$ concentration would not exceed the BAAQMD significance threshold of 0.3 $\mu g/m^3$.

Non-Cancer Hazards

The maximum computed HI based on DPM concentration would be 0.04, which is much lower than the BAAQMD significance threshold of 1.0

Combined Construction Risk Assessment

As discussed above, the project site is affected by a couple sources of TACs. Table 6 shows the cancer risk associated with each source affecting the construction MEI. The sum of impacts from combined sources (i.e., sources within 1,000 feet of the project) would not exceed the combined thresholds for community risk.

Table 6. Combined Community Risk Assessment at Construction MEI

Source	Maximum Cancer Risk (per million)	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)	Maximum Hazard Index
Project Construction	49.4	0.26	0.04
Stevens Creek Boulevard	<1.9	<0.28	<0.01
Kiely Boulevard	<0.6	<0.02	<0.03
Plant G4436, Tosco – Unocal #254832 4185 Stevens Creek Boulevard[1]	--	--	--
Plant 3721, Smythe European 4500 Stevens Creek Boulevard	<1.6	<0.01	<0.01
Combined Total	<53.5	<0.57	<0.09
BAAQMD Threshold – Combined Sources	***>100***	***>0.8***	***>10.0***
Exceeds Threshold After Mitigation?	***No***	***No***	***No***

Note: [1]This source is over 1,000 feet from the construction MEI.

Mitigation Measure AQ-2: **Use Construction equipment that has low diesel particulate matter exhaust emissions.**

The project shall develop a plan demonstrating that the off-road equipment used to on-site to construct the project would achieve a fleet-wide average of at least 80 percent reduction in PM_{10} emissions. One feasible plan to achieve this reduction would include the following:

> All mobile diesel-powered off-road equipment larger than 25 hp and operating on the site for more than two days shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent. Note that the construction contractor could use other measures to minimize construction period DPM emission to reduce the estimated cancer risk below the thresholds. The use of equipment that meets U.S. EPA Tier 2 standards and includes CARB-certified Level 3 Diesel Particulate Filters[14] or alternatively-fueled equipment (i.e., non-diesel) would meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.

Effectiveness of Mitigation

Implementation of *Mitigation Measure AQ-1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure AQ-2* would further reduce on-site diesel exhaust emissions. With mitigation, the computed maximum increased cancer risk for construction would be 5.8 in one million or less. The cancer risk would be below the BAAQMD threshold of greater than 10 per one million for cancer risk. Therefore, *after implementation of these recommended measures, the project would have a less-than-significant impact with respect to community risk caused by construction activities.*

[14] See http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm

Figure 2. Project Construction Site and Locations of Sensitive Receptors and Maximum TAC and $PM_{2.5}$ Impacts

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.[1] 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.[2] This HRA used the recent 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.[3] 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 are 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 of exposure, and the exposure duration. 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). As recommended by the BAAQMD, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways).

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[1] 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.

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

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

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 that would 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)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

Parameter	*Exposure Type* →	Infant		Child		Adult
	Age Range →	3rd Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day)*		361	1,090	631	572	261
Inhalation Absorption Factor		1	1	1	1	1
Averaging Time (years)		70	70	70	70	70
Exposure Duration (years)		0.25	2	14	14	14
Exposure Frequency (days/year)		350	350	350	350	350
Age Sensitivity Factor		10	10	3	3	1
Fraction of Time at Home		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73

* 95th percentile breathing rates for 3rd trimester and infants and 80th percentile for children and adults

Non-Cancer Hazards

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

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

Annual $PM_{2.5}$ Concentrations

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

Attachment 2: CalEEMod Input and Output Worksheets, and Risk Calculations

Project Name:		4300 Stevens Creek - Fortbay Development					
	Project Size		**Dwelling Units**		**total project acres disturbed**		
			s.f. residential		**s.f. retail**		
			s.f. office/commercial		**s.f. other, specify:**		
			s.f. other, specify:				
			s.f. parking garage		**spaces**		
			s.f. parking lot		**spaces**		
	Construction Hours		**am to**		**pm**		
Qty	**Description**	**HP**	**Load Factor**	**Hours/day**	**Total Work Days**	**Avg. Hours per day**	**Comments**
	Demolition	**Start Date:**	**6/1/2018**	**Total phase:**	**42**		**Overall Import/Export Volumes**
		End Date:	**7/30/2018**				
1	Concrete/Industrial Saws	81	0.73	8	42	8.0	**Demolition Volume**
3	Excavators	158	0.38	8	35	6.7	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	247	0.4	8	40	7.6	(*or* total tons to be hauled)
							210,000 square feet *or*
							? Hauling volume (tons)
	Site Preperation	**Start Date:**	**8/1/2018**	**Total phase:**	**65**		Any pavement demolished and hauled? **? tons**
		End Date:	**10/30/2018**				**Soil Hauling Volume**
3	Rubber Tired Dozers	247	0.4	1	5	0.1	Export volume = **?** cubic yards?
4	Tractors/Loaders/Backhoes	97	0.37	1	25	0.4	Import volume = **?** cubic yards?
	Grading / Excavation	**Start Date:**	**9/1/2018**	**Total phase:**	**65**		
		End Date:	**11/30/2018**				**Soil Hauling Volume**
2	Scrapers	367	0.48	2	10	0.3	
2	Excavators	158	0.38	1	15	0.2	Export volume = **35,000** cubic yards?
1	Graders	187	0.41	1	10	0.2	Import volume = **?** cubic yards?
1	Rubber Tired Dozers	247	0.4	8	65	8.0	
2	Tractors/Loaders/Backhoes	97	0.37	1	20	0.3	
	Trenching	**Start Date:**	**8/1/2018**	**Total phase:**	**88**		
		End Date:	**12/1/2018**				
1	Tractor/Loader/Backhoe	97	0.37	8	88	8.0	
1	Excavators	162	0.38	8	88	8.0	
	Building - Exterior	**Start Date:**	**12/1/2018**	**Total phase:**	**305**		**Cement Trucks? ? Total Round-Trips**
		End Date:	**2/1/2020**				
1	Cranes	231	0.29	7	305	7.0	Electric? (Y/N) ___ Otherwise assumed diesel
3	Forklifts	89	0.2	8	305	8.0	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	305	8.0	Or temporary line power? (Y/N) ___
3	Tractors/Loaders/Backhoes	97	0.37	7	305	7.0	otherwise, assume diesel generator
1	Welders	46	0.45	8	305	8.0	
Building - Interior/Architectural Coating		**Start Date:**	**9/1/2019**	**Total phase:**	**217**		
		End Date:	**6/30/2020**				
1	Air Compressors	78	0.48	6	217	6.0	
1	Aerial Lift	63	0.31	8	217	8.0	
	Paving	**Start Date:**	**9/1/2019**	**Total phase:**	**10**		
		Start Date:	**9/13/2019**				
2	Pavers	130	0.42	8	10	8.0	**Asphalt 1,500tons or 75 round trips?**
2	Paving Equipment	132	0.36	1	2	0.2	
2	Rollers	80	0.38	2	2	0.4	
1	Tractors/Loaders/Backhoes	97	0.37	1	2	0.2	

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

4300 Stevens Creek Blvd, San Jose

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	582.00	Dwelling Unit	9.25	582,000.00	1665
General Office Building	300.00	1000sqft	0.00	300,000.00	0
Strip Mall	10.00	1000sqft	0.00	10,000.00	0
Enclosed Parking Structure	2,043.00	Space	0.00	817,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2021
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 - 2020 PG&E CO2 rate

Land Use - 9.25ac net site area

Construction Phase - Anticipated schedule provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Grading - 35,000cy export

Demolition - 210,000sf demo

Trips and VMT - Paving: 150 one-way asphalt truck trips, vendor trpi length for asphalt trucks

Vehicle Trips - Trip rates from traffic report. Retail pass-by set to zero.

Woodstoves - No woodstoves or wood fireplaces, possible gas fireplaces

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	217.00
tblConstructionPhase	NumDays	230.00	305.00
tblConstructionPhase	NumDays	20.00	42.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	8/22/2019	6/30/2020
tblConstructionPhase	PhaseEndDate	6/27/2019	1/31/2020
tblConstructionPhase	PhaseEndDate	6/28/2018	7/30/2018
tblConstructionPhase	PhaseEndDate	8/9/2018	11/30/2018
tblConstructionPhase	PhaseEndDate	7/25/2019	9/13/2019
tblConstructionPhase	PhaseEndDate	7/12/2018	10/30/2018
tblConstructionPhase	PhaseStartDate	7/26/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	8/10/2018	12/1/2018
tblConstructionPhase	PhaseStartDate	7/13/2018	9/1/2018
tblConstructionPhase	PhaseStartDate	6/28/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	6/29/2018	8/1/2018
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	87.30	186.24

tblFireplaces	NumberWood	98.94	0.00
tblGrading	MaterialExported	0.00	35,000.00
tblLandUse	LotAcreage	15.32	9.25
tblLandUse	LotAcreage	6.89	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	18.39	0.00
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.40
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.40
tblOffRoadEquipment	UsageHours	8.00	0.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripNumber	0.00	150.00

tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	6.39	6.01
tblVehicleTrips	ST_TR	2.46	2.34
tblVehicleTrips	ST_TR	42.04	23.54
tblVehicleTrips	SU_TR	5.86	5.51
tblVehicleTrips	SU_TR	1.05	1.00
tblVehicleTrips	SU_TR	20.43	11.44
tblVehicleTrips	WD_TR	6.65	6.27
tblVehicleTrips	WD_TR	11.03	10.45
tblVehicleTrips	WD_TR	44.32	24.60
tblWoodstoves	NumberCatalytic	11.64	0.00
tblWoodstoves	NumberNoncatalytic	11.64	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.2539	2.9917	1.6619	5.4900e-003	0.4594	0.0994	0.5587	0.1680	0.0924	0.2605	0.0000	513.3209	513.3209	0.0609	0.0000	514.8437
2019	3.2775	7.3011	6.8436	0.0220	1.1637	0.2119	1.3756	0.3144	0.1998	0.5143	0.0000	2,021.4066	2,021.4066	0.1443	0.0000	2,025.0143
2020	3.6488	0.7454	0.9973	2.9700e-003	0.1859	0.0237	0.2096	0.0499	0.0227	0.0725	0.0000	270.4134	270.4134	0.0178	0.0000	270.8581
Maximum	**3.6488**	**7.3011**	**6.8436**	**0.0220**	**1.1637**	**0.2119**	**1.3756**	**0.3144**	**0.1998**	**0.5143**	**0.0000**	**2,021.4066**	**2,021.4066**	**0.1443**	**0.0000**	**2,025.0143**

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					
2018	0.2539	2.9917	1.6619	5.4900e-003	0.4594	0.0994	0.5587	0.1680	0.0924	0.2605	0.0000	513.3207	513.3207	0.0609	0.0000	514.8435
2019	3.2775	7.3011	6.8436	0.0220	1.1637	0.2119	1.3756	0.3144	0.1998	0.5143	0.0000	2,021.4062	2,021.4062	0.1443	0.0000	2,025.0139
2020	3.6488	0.7454	0.9973	2.9700e-003	0.1859	0.0237	0.2096	0.0499	0.0227	0.0725	0.0000	270.4133	270.4133	0.0178	0.0000	270.8580
Maximum	**3.6488**	**7.3011**	**6.8436**	**0.0220**	**1.1637**	**0.2119**	**1.3756**	**0.3144**	**0.1998**	**0.5143**	**0.0000**	**2,021.4062**	**2,021.4062**	**0.1443**	**0.0000**	**2,025.0139**

	ROG	NOx	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)
1	6-1-2018	8-31-2018	1.0828	1.0828
2	9-1-2018	11-30-2018	1.4745	1.4745
3	12-1-2018	2-28-2019	2.0499	2.0499
4	3-1-2019	5-31-2019	2.0085	2.0085
5	6-1-2019	8-31-2019	1.9957	1.9957
6	9-1-2019	11-30-2019	3.9376	3.9376
7	12-1-2019	2-29-2020	3.1896	3.1896
8	3-1-2020	5-31-2020	1.9004	1.9004
9	6-1-2020	8-31-2020	0.6193	0.6193
		Highest	3.9376	3.9376

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.2605	0.0703	4.3611	3.6000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	30.3511	30.3511	7.4000e-003	4.3000e-004	30.6630
Energy	0.0589	0.5207	0.3403	3.2100e-003		0.0407	0.0407		0.0407	0.0407	0.0000	2,022.0632	2,022.0632	0.1551	0.0405	2,037.9977
Mobile	1.5470	6.4747	18.1111	0.0597	5.3422	0.0517	5.3939	1.4301	0.0483	1.4784	0.0000	5,461.8605	5,461.8605	0.1905	0.0000	5,466.6226
Waste						0.0000	0.0000		0.0000	0.0000	113.1106	0.0000	113.1106	6.6847	0.0000	280.2268
Water						0.0000	0.0000		0.0000	0.0000	29.1812	91.7302	120.9113	3.0064	0.0727	217.7253
Total	**5.8664**	**7.0656**	**22.8125**	**0.0633**	**5.3422**	**0.1180**	**5.4602**	**1.4301**	**0.1146**	**1.5447**	**142.2918**	**7,606.0049**	**7,748.2967**	**10.0440**	**0.1136**	**8,033.2354**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.2605	0.0703	4.3611	3.6000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	30.3511	30.3511	7.4000e-003	4.3000e-004	30.6630
Energy	0.0589	0.5207	0.3403	3.2100e-003		0.0407	0.0407		0.0407	0.0407	0.0000	2,022.0632	2,022.0632	0.1551	0.0405	2,037.9977
Mobile	1.5470	6.4747	18.1111	0.0597	5.3422	0.0517	5.3939	1.4301	0.0483	1.4784	0.0000	5,461.8605	5,461.8605	0.1905	0.0000	5,466.6226
Waste						0.0000	0.0000		0.0000	0.0000	113.1106	0.0000	113.1106	6.6847	0.0000	280.2268
Water						0.0000	0.0000		0.0000	0.0000	29.1812	91.7302	120.9113	3.0064	0.0727	217.7253
Total	**5.8664**	**7.0656**	**22.8125**	**0.0633**	**5.3422**	**0.1180**	**5.4602**	**1.4301**	**0.1146**	**1.5447**	**142.2918**	**7,606.0049**	**7,748.2967**	**10.0440**	**0.1136**	**8,033.2354**

	ROG	NOx	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	Demolition	Demolition	6/1/2018	7/30/2018	5	42	
2	Site Preparation	Site Preparation	8/1/2018	10/30/2018	5	65	
3	Grading	Grading	9/1/2018	11/30/2018	5	65	
4	Building Construction	Building Construction	12/1/2018	1/31/2020	5	305	
5	Paving	Paving	9/1/2019	9/13/2019	5	10	
6	Architectural Coating	Architectural Coating	9/1/2019	6/30/2020	5	217	
7	Trenching	Trenching	8/1/2018	11/30/2018	5	88	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5.69

Acres of Paving: 0

Residential Indoor: 1,178,550; Residential Outdoor: 392,850; Non-Residential Indoor: 465,000; Non-Residential Outdoor: 155,000;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	6.70	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	0.20	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	0.40	80	0.38
Demolition	Rubber Tired Dozers	2	7.60	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	0.20	187	0.41
Grading	Tractors/Loaders/Backhoes	2	0.30	97	0.37
Paving	Paving Equipment	2	0.20	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	0.40	97	0.37
Site Preparation	Rubber Tired Dozers	3	0.10	247	0.40
Building Construction	Welders	1	8.00	46	0.45
Grading	Scrapers	2	0.30	367	0.48
Paving	Tractors/Loaders/Backhoes	1	0.20	97	0.37
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38

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	6	15.00	0.00	955.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	4,375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	861.00	247.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	150.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	172.00	0.00	0.00	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

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

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					0.1034	0.0000	0.1034	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7467	0.4257	7.4000e-004		0.0379	0.0379		0.0353	0.0353	0.0000	67.2963	67.2963	0.0183	0.0000	67.7540
Total	**0.0727**	**0.7467**	**0.4257**	**7.4000e-004**	**0.1034**	**0.0379**	**0.1413**	**0.0157**	**0.0353**	**0.0510**	**0.0000**	**67.2963**	**67.2963**	**0.0183**	**0.0000**	**67.7540**

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	4.5700e-003	0.1565	0.0304	3.8000e-004	8.0900e-003	6.3000e-004	8.7200e-003	2.2300e-003	6.0000e-004	2.8200e-003	0.0000	37.1636	37.1636	1.7500e-003	0.0000	37.2074
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	1.2700e-003	9.7000e-004	9.9300e-003	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.2793	2.2793	7.0000e-005	0.0000	2.2810
Total	**5.8400e-003**	**0.1575**	**0.0404**	**4.1000e-004**	**0.0106**	**6.5000e-004**	**0.0112**	**2.8900e-003**	**6.2000e-004**	**3.5000e-003**	**0.0000**	**39.4429**	**39.4429**	**1.8200e-003**	**0.0000**	**39.4885**

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					0.1034	0.0000	0.1034	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7467	0.4257	7.4000e-004		0.0379	0.0379		0.0353	0.0353	0.0000	67.2962	67.2962	0.0183	0.0000	67.7540
Total	**0.0727**	**0.7467**	**0.4257**	**7.4000e-004**	**0.1034**	**0.0379**	**0.1413**	**0.0157**	**0.0353**	**0.0510**	**0.0000**	**67.2962**	**67.2962**	**0.0183**	**0.0000**	**67.7540**

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	4.5700e-003	0.1565	0.0304	3.8000e-004	8.0900e-003	6.3000e-004	8.7200e-003	2.2300e-003	6.0000e-004	2.8200e-003	0.0000	37.1636	37.1636	1.7500e-003	0.0000	37.2074
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	1.2700e-003	9.7000e-004	9.9300e-003	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.2793	2.2793	7.0000e-005	0.0000	2.2810
Total	**5.8400e-003**	**0.1575**	**0.0404**	**4.1000e-004**	**0.0106**	**6.5000e-004**	**0.0112**	**2.8900e-003**	**6.2000e-004**	**3.5000e-003**	**0.0000**	**39.4429**	**39.4429**	**1.8200e-003**	**0.0000**	**39.4885**

3.3 Site Preparation - 2018

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					7.3400e-003	0.0000	7.3400e-003	4.0300e-003	0.0000	4.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	3.1500e-003	0.0324	0.0205	3.0000e-005		1.9600e-003	1.9600e-003		1.8000e-003	1.8000e-003	0.0000	2.7954	2.7954	8.7000e-004	0.0000	2.8171
Total	**3.1500e-003**	**0.0324**	**0.0205**	**3.0000e-005**	**7.3400e-003**	**1.9600e-003**	**9.3000e-003**	**4.0300e-003**	**1.8000e-003**	**5.8300e-003**	**0.0000**	**2.7954**	**2.7954**	**8.7000e-004**	**0.0000**	**2.8171**

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	2.3600e-003	1.8100e-003	0.0185	5.0000e-005	4.6400e-003	3.0000e-005	4.6700e-003	1.2300e-003	3.0000e-005	1.2600e-003	0.0000	4.2330	4.2330	1.3000e-004	0.0000	4.2362
Total	**2.3600e-003**	**1.8100e-003**	**0.0185**	**5.0000e-005**	**4.6400e-003**	**3.0000e-005**	**4.6700e-003**	**1.2300e-003**	**3.0000e-005**	**1.2600e-003**	**0.0000**	**4.2330**	**4.2330**	**1.3000e-004**	**0.0000**	**4.2362**

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					7.3400e-003	0.0000	7.3400e-003	4.0300e-003	0.0000	4.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e-003	0.0324	0.0205	3.0000e-005		1.9600e-003	1.9600e-003		1.8000e-003	1.8000e-003	0.0000	2.7954	2.7954	8.7000e-004	0.0000	2.8171
Total	**3.1500e-003**	**0.0324**	**0.0205**	**3.0000e-005**	**7.3400e-003**	**1.9600e-003**	**9.3000e-003**	**4.0300e-003**	**1.8000e-003**	**5.8300e-003**	**0.0000**	**2.7954**	**2.7954**	**8.7000e-004**	**0.0000**	**2.8171**

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	2.3600e-003	1.8100e-003	0.0185	5.0000e-005	4.6400e-003	3.0000e-005	4.6700e-003	1.2300e-003	3.0000e-005	1.2600e-003	0.0000	4.2330	4.2330	1.3000e-004	0.0000	4.2362
Total	**2.3600e-003**	**1.8100e-003**	**0.0185**	**5.0000e-005**	**4.6400e-003**	**3.0000e-005**	**4.6700e-003**	**1.2300e-003**	**3.0000e-005**	**1.2600e-003**	**0.0000**	**4.2330**	**4.2330**	**1.3000e-004**	**0.0000**	**4.2362**

3.4 Grading - 2018

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					0.2007	0.0000	0.2007	0.1082	0.0000	0.1082	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0423	0.4602	0.1763	3.4000e-004		0.0221	0.0221		0.0203	0.0203	0.0000	30.7009	30.7009	9.5600e-003	0.0000	30.9398
Total	**0.0423**	**0.4602**	**0.1763**	**3.4000e-004**	**0.2007**	**0.0221**	**0.2228**	**0.1082**	**0.0203**	**0.1285**	**0.0000**	**30.7009**	**30.7009**	**9.5600e-003**	**0.0000**	**30.9398**

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	0.0209	0.7171	0.1395	1.7600e-003	0.0371	2.8700e-003	0.0399	0.0102	2.7400e-003	0.0129	0.0000	170.2519	170.2519	8.0400e-003	0.0000	170.4528
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	2.6200e-003	2.0100e-003	0.0205	5.0000e-005	5.1600e-003	3.0000e-005	5.1900e-003	1.3700e-003	3.0000e-005	1.4000e-003	0.0000	4.7034	4.7034	1.4000e-004	0.0000	4.7069
Total	**0.0236**	**0.7191**	**0.1600**	**1.8100e-003**	**0.0422**	**2.9000e-003**	**0.0451**	**0.0116**	**2.7700e-003**	**0.0143**	**0.0000**	**174.9553**	**174.9553**	**8.1800e-003**	**0.0000**	**175.1597**

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					0.2007	0.0000	0.2007	0.1082	0.0000	0.1082	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0423	0.4602	0.1763	3.4000e-004		0.0221	0.0221		0.0203	0.0203	0.0000	30.7009	30.7009	9.5600e-003	0.0000	30.9398
Total	**0.0423**	**0.4602**	**0.1763**	**3.4000e-004**	**0.2007**	**0.0221**	**0.2228**	**0.1082**	**0.0203**	**0.1285**	**0.0000**	**30.7009**	**30.7009**	**9.5600e-003**	**0.0000**	**30.9398**

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	0.0209	0.7171	0.1395	1.7600e-003	0.0371	2.8700e-003	0.0399	0.0102	2.7400e-003	0.0129	0.0000	170.2519	170.2519	8.0400e-003	0.0000	170.4528
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	2.6200e-003	2.0100e-003	0.0205	5.0000e-005	5.1600e-003	3.0000e-005	5.1900e-003	1.3700e-003	3.0000e-005	1.4000e-003	0.0000	4.7034	4.7034	1.4000e-004	0.0000	4.7069
Total	**0.0236**	**0.7191**	**0.1600**	**1.8100e-003**	**0.0422**	**2.9000e-003**	**0.0451**	**0.0116**	**2.7700e-003**	**0.0143**	**0.0000**	**174.9553**	**174.9553**	**8.1800e-003**	**0.0000**	**175.1597**

3.5 Building Construction - 2018

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	0.0281	0.2456	0.1846	2.8000e-004		0.0158	0.0158		0.0148	0.0148	0.0000	24.9656	24.9656	6.1200e-003	0.0000	25.1185
Total	**0.0281**	**0.2456**	**0.1846**	**2.8000e-004**		**0.0158**	**0.0158**		**0.0148**	**0.0148**	**0.0000**	**24.9656**	**24.9656**	**6.1200e-003**	**0.0000**	**25.1185**

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	0.0142	0.3476	0.0967	7.2000e-004	0.0171	2.7900e-003	0.0199	4.9300e-003	2.6700e-003	7.6000e-003	0.0000	68.6452	68.6452	3.5600e-003	0.0000	68.7343
Worker	0.0364	0.0280	0.2851	7.2000e-004	0.0717	4.8000e-004	0.0722	0.0191	4.4000e-004	0.0195	0.0000	65.4167	65.4167	1.9600e-003	0.0000	65.4658
Total	**0.0506**	**0.3756**	**0.3818**	**1.4400e-003**	**0.0888**	**3.2700e-003**	**0.0920**	**0.0240**	**3.1100e-003**	**0.0271**	**0.0000**	**134.0619**	**134.0619**	**5.5200e-003**	**0.0000**	**134.2000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0281	0.2456	0.1846	2.8000e-004		0.0158	0.0158		0.0148	0.0148	0.0000	24.9655	24.9655	6.1200e-003	0.0000	25.1184
Total	**0.0281**	**0.2456**	**0.1846**	**2.8000e-004**		**0.0158**	**0.0158**		**0.0148**	**0.0148**	**0.0000**	**24.9655**	**24.9655**	**6.1200e-003**	**0.0000**	**25.1184**

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	0.0142	0.3476	0.0967	7.2000e-004	0.0171	2.7900e-003	0.0199	4.9300e-003	2.6700e-003	7.6000e-003	0.0000	68.6452	68.6452	3.5600e-003	0.0000	68.7343
Worker	0.0364	0.0280	0.2851	7.2000e-004	0.0717	4.8000e-004	0.0722	0.0191	4.4000e-004	0.0195	0.0000	65.4167	65.4167	1.9600e-003	0.0000	65.4658
Total	**0.0506**	**0.3756**	**0.3818**	**1.4400e-003**	**0.0888**	**3.2700e-003**	**0.0920**	**0.0240**	**3.1100e-003**	**0.0271**	**0.0000**	**134.0619**	**134.0619**	**5.5200e-003**	**0.0000**	**134.2000**

3.5 Building Construction - 2019

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	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8110**	**306.8110**	**0.0747**	**0.0000**	**308.6795**

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	0.1581	4.0704	1.0926	8.8500e-003	0.2120	0.0293	0.2413	0.0613	0.0280	0.0893	0.0000	847.9081	847.9081	0.0421	0.0000	848.9596
Worker	0.4081	0.3039	3.1389	8.7300e-003	0.8912	5.8800e-003	0.8970	0.2370	5.4200e-003	0.2424	0.0000	788.8643	788.8643	0.0215	0.0000	789.4013
Total	**0.5662**	**4.3742**	**4.2315**	**0.0176**	**1.1032**	**0.0351**	**1.1383**	**0.2983**	**0.0334**	**0.3317**	**0.0000**	**1,636.7724**	**1,636.7724**	**0.0635**	**0.0000**	**1,638.3609**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8106**	**306.8106**	**0.0747**	**0.0000**	**308.6792**

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	0.1581	4.0704	1.0926	8.8500e-003	0.2120	0.0293	0.2413	0.0613	0.0280	0.0893	0.0000	847.9081	847.9081	0.0421	0.0000	848.9596
Worker	0.4081	0.3039	3.1389	8.7300e-003	0.8912	5.8800e-003	0.8970	0.2370	5.4200e-003	0.2424	0.0000	788.8643	788.8643	0.0215	0.0000	789.4013
Total	**0.5662**	**4.3742**	**4.2315**	**0.0176**	**1.1032**	**0.0351**	**1.1383**	**0.2983**	**0.0334**	**0.3317**	**0.0000**	**1,636.7724**	**1,636.7724**	**0.0635**	**0.0000**	**1,638.3609**

3.5 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	0.0244	0.2206	0.1938	3.1000e-004		0.0129	0.0129		0.0121	0.0121	0.0000	26.6352	26.6352	6.5000e-003	0.0000	26.7976
Total	**0.0244**	**0.2206**	**0.1938**	**3.1000e-004**		**0.0129**	**0.0129**		**0.0121**	**0.0121**	**0.0000**	**26.6352**	**26.6352**	**6.5000e-003**	**0.0000**	**26.7976**

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	0.0113	0.3234	0.0861	7.7000e-004	0.0187	1.6000e-003	0.0203	5.4000e-003	1.5300e-003	6.9300e-003	0.0000	74.2628	74.2628	3.4100e-003	0.0000	74.3480
Worker	0.0329	0.0236	0.2478	7.4000e-004	0.0785	5.1000e-004	0.0790	0.0209	4.7000e-004	0.0214	0.0000	67.3450	67.3450	1.6500e-003	0.0000	67.3863
Total	**0.0442**	**0.3471**	**0.3339**	**1.5100e-003**	**0.0972**	**2.1100e-003**	**0.0993**	**0.0263**	**2.0000e-003**	**0.0283**	**0.0000**	**141.6078**	**141.6078**	**5.0600e-003**	**0.0000**	**141.7343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0244	0.2206	0.1938	3.1000e-004		0.0129	0.0129		0.0121	0.0121	0.0000	26.6351	26.6351	6.5000e-003	0.0000	26.7976
Total	**0.0244**	**0.2206**	**0.1938**	**3.1000e-004**		**0.0129**	**0.0129**		**0.0121**	**0.0121**	**0.0000**	**26.6351**	**26.6351**	**6.5000e-003**	**0.0000**	**26.7976**

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	0.0113	0.3234	0.0861	7.7000e-004	0.0187	1.6000e-003	0.0203	5.4000e-003	1.5300e-003	6.9300e-003	0.0000	74.2628	74.2628	3.4100e-003	0.0000	74.3480
Worker	0.0329	0.0236	0.2478	7.4000e-004	0.0785	5.1000e-004	0.0790	0.0209	4.7000e-004	0.0214	0.0000	67.3450	67.3450	1.6500e-003	0.0000	67.3863
Total	**0.0442**	**0.3471**	**0.3339**	**1.5100e-003**	**0.0972**	**2.1100e-003**	**0.0993**	**0.0263**	**2.0000e-003**	**0.0283**	**0.0000**	**141.6078**	**141.6078**	**5.0600e-003**	**0.0000**	**141.7343**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0700e-003	0.0332	0.0309	5.0000e-005		1.6500e-003	1.6500e-003		1.5200e-003	1.5200e-003	0.0000	4.4669	4.4669	1.4100e-003	0.0000	4.5023
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0700e-003**	**0.0332**	**0.0309**	**5.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**4.4669**	**4.4669**	**1.4100e-003**	**0.0000**	**4.5023**

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	3.5000e-004	0.0131	2.4300e-003	3.0000e-005	4.7000e-004	4.0000e-005	5.0000e-004	1.3000e-004	3.0000e-005	1.6000e-004	0.0000	2.5659	2.5659	1.7000e-004	0.0000	2.5701
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	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323

Total	**6.8000e-004**	**0.0134**	**4.9400e-003**	**4.0000e-005**	**1.1800e-003**	**4.0000e-005**	**1.2200e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**3.1978**	**3.1978**	**1.9000e-004**	**0.0000**	**3.2024**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0700e-003	0.0332	0.0309	5.0000e-005		1.6500e-003	1.6500e-003		1.5200e-003	1.5200e-003	0.0000	4.4669	4.4669	1.4100e-003	0.0000	4.5023
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0700e-003**	**0.0332**	**0.0309**	**5.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**4.4669**	**4.4669**	**1.4100e-003**	**0.0000**	**4.5023**

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	3.5000e-004	0.0131	2.4300e-003	3.0000e-005	4.7000e-004	4.0000e-005	5.0000e-004	1.3000e-004	3.0000e-005	1.6000e-004	0.0000	2.5659	2.5659	1.7000e-004	0.0000	2.5701
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	3.3000e-004	2.4000e-004	2.5100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6319	0.6319	2.0000e-005	0.0000	0.6323
Total	**6.8000e-004**	**0.0134**	**4.9400e-003**	**4.0000e-005**	**1.1800e-003**	**4.0000e-005**	**1.2200e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**3.1978**	**3.1978**	**1.9000e-004**	**0.0000**	**3.2024**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1093	0.1274	2.0000e-004		6.3200e-003	6.3200e-003		6.2700e-003	6.2700e-003	0.0000	17.6286	17.6286	3.0000e-003	0.0000	17.7036
Total	**2.3723**	**0.1093**	**0.1274**	**2.0000e-004**		**6.3200e-003**	**6.3200e-003**		**6.2700e-003**	**6.2700e-003**	**0.0000**	**17.6286**	**17.6286**	**3.0000e-003**	**0.0000**	**17.7036**

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	0.0272	0.0202	0.2090	5.8000e-004	0.0593	3.9000e-004	0.0597	0.0158	3.6000e-004	0.0161	0.0000	52.5299	52.5299	1.4300e-003	0.0000	52.5656
Total	**0.0272**	**0.0202**	**0.2090**	**5.8000e-004**	**0.0593**	**3.9000e-004**	**0.0597**	**0.0158**	**3.6000e-004**	**0.0161**	**0.0000**	**52.5299**	**52.5299**	**1.4300e-003**	**0.0000**	**52.5656**

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	2.3590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1093	0.1274	2.0000e-004		6.3200e-003	6.3200e-003		6.2700e-003	6.2700e-003	0.0000	17.6285	17.6285	3.0000e-003	0.0000	17.7036
Total	**2.3723**	**0.1093**	**0.1274**	**2.0000e-004**		**6.3200e-003**	**6.3200e-003**		**6.2700e-003**	**6.2700e-003**	**0.0000**	**17.6285**	**17.6285**	**3.0000e-003**	**0.0000**	**17.7036**

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	0.0272	0.0202	0.2090	5.8000e-004	0.0593	3.9000e-004	0.0597	0.0158	3.6000e-004	0.0161	0.0000	52.5299	52.5299	1.4300e-003	0.0000	52.5656
Total	**0.0272**	**0.0202**	**0.2090**	**5.8000e-004**	**0.0593**	**3.9000e-004**	**0.0597**	**0.0158**	**3.6000e-004**	**0.0161**	**0.0000**	**52.5299**	**52.5299**	**1.4300e-003**	**0.0000**	**52.5656**

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	3.5249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1510	0.1898	3.0000e-004		8.1400e-003	8.1400e-003		8.0600e-003	8.0600e-003	0.0000	26.1297	26.1297	4.3700e-003	0.0000	26.2389
Total	**3.5432**	**0.1510**	**0.1898**	**3.0000e-004**		**8.1400e-003**	**8.1400e-003**		**8.0600e-003**	**8.0600e-003**	**0.0000**	**26.1297**	**26.1297**	**4.3700e-003**	**0.0000**	**26.2389**

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	0.0371	0.0267	0.2798	8.4000e-004	0.0887	5.7000e-004	0.0892	0.0236	5.3000e-004	0.0241	0.0000	76.0407	76.0407	1.8700e-003	0.0000	76.0873
Total	**0.0371**	**0.0267**	**0.2798**	**8.4000e-004**	**0.0887**	**5.7000e-004**	**0.0892**	**0.0236**	**5.3000e-004**	**0.0241**	**0.0000**	**76.0407**	**76.0407**	**1.8700e-003**	**0.0000**	**76.0873**

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	3.5249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1510	0.1898	3.0000e-004		8.1400e-003	8.1400e-003		8.0600e-003	8.0600e-003	0.0000	26.1296	26.1296	4.3700e-003	0.0000	26.2389
Total	**3.5432**	**0.1510**	**0.1898**	**3.0000e-004**		**8.1400e-003**	**8.1400e-003**		**8.0600e-003**	**8.0600e-003**	**0.0000**	**26.1296**	**26.1296**	**4.3700e-003**	**0.0000**	**26.2389**

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	0.0371	0.0267	0.2798	8.4000e-004	0.0887	5.7000e-004	0.0892	0.0236	5.3000e-004	0.0241	0.0000	76.0407	76.0407	1.8700e-003	0.0000	76.0873
Total	**0.0371**	**0.0267**	**0.2798**	**8.4000e-004**	**0.0887**	**5.7000e-004**	**0.0892**	**0.0236**	**5.3000e-004**	**0.0241**	**0.0000**	**76.0407**	**76.0407**	**1.8700e-003**	**0.0000**	**76.0873**

3.8 Trenching - 2018

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	0.0245	0.2521	0.2473	3.6000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	33.2777	33.2777	0.0104	0.0000	33.5367
Total	**0.0245**	**0.2521**	**0.2473**	**3.6000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**33.2777**	**33.2777**	**0.0104**	**0.0000**	**33.5367**

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	8.9000e-004	6.8000e-004	6.9400e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5919	1.5919	5.0000e-005	0.0000	1.5931
Total	**8.9000e-004**	**6.8000e-004**	**6.9400e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7600e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.5919**	**1.5919**	**5.0000e-005**	**0.0000**	**1.5931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0245	0.2521	0.2473	3.6000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	33.2777	33.2777	0.0104	0.0000	33.5367
Total	**0.0245**	**0.2521**	**0.2473**	**3.6000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**33.2777**	**33.2777**	**0.0104**	**0.0000**	**33.5367**

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	8.9000e-004	6.8000e-004	6.9400e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7600e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5919	1.5919	5.0000e-005	0.0000	1.5931
Total	**8.9000e-004**	**6.8000e-004**	**6.9400e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7600e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.5919**	**1.5919**	**5.0000e-005**	**0.0000**	**1.5931**

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	1.5470	6.4747	18.1111	0.0597	5.3422	0.0517	5.3939	1.4301	0.0483	1.4784	0.0000	5,461.8605	5,461.8605	0.1905	0.0000	5,466.6226
Unmitigated	1.5470	6.4747	18.1111	0.0597	5.3422	0.0517	5.3939	1.4301	0.0483	1.4784	0.0000	5,461.8605	5,461.8605	0.1905	0.0000	5,466.6226

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	3,649.14	3,497.82	3206.82	8,232,212	8,232,212
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	3,135.00	702.00	300.00	5,693,415	5,693,415
Strip Mall	246.00	235.40	114.40	440,785	440,785
Total	7,030.14	4,435.22	3,621.22	14,366,413	14,366,413

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	60	40	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Enclosed Parking Structure	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
General Office Building	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Strip Mall	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

5.0 Energy Detail

Historical Energy Use: N

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	1,439.0043	1,439.0043	0.1439	0.0298	1,451.4740
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,439.0043	1,439.0043	0.1439	0.0298	1,451.4740
NaturalGas Mitigated	0.0589	0.5207	0.3403	3.2100e-003		0.0407	0.0407		0.0407	0.0407	0.0000	583.0589	583.0589	0.0112	0.0107	586.5237
NaturalGas Unmitigated	0.0589	0.5207	0.3403	3.2100e-003		0.0407	0.0407		0.0407	0.0407	0.0000	583.0589	583.0589	0.0112	0.0107	586.5237

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.08111e+006	0.0274	0.2341	0.0996	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	271.1474	271.1474	5.2000e-003	4.9700e-003	272.7587
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.799e+006	0.0313	0.2843	0.2388	1.7100e-003		0.0216	0.0216		0.0216	0.0216	0.0000	309.4567	309.4567	5.9300e-003	5.6700e-003	311.2957
Strip Mall	46000	2.5000e-004	2.2500e-003	1.8900e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4547	2.4547	5.0000e-005	5.0000e-005	2.4693
Total		**0.0589**	**0.5206**	**0.3403**	**3.2100e-003**		**0.0407**	**0.0407**		**0.0407**	**0.0407**	**0.0000**	**583.0589**	**583.0589**	**0.0112**	**0.0107**	**586.5237**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	5.08111e+006	0.0274	0.2341	0.0996	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	271.1474	271.1474	5.2000e-003	4.9700e-003	272.7587
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.799e+006	0.0313	0.2843	0.2388	1.7100e-003		0.0216	0.0216		0.0216	0.0216	0.0000	309.4567	309.4567	5.9300e-003	5.6700e-003	311.2957
Strip Mall	46000	2.5000e-004	2.2500e-003	1.8900e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4547	2.4547	5.0000e-005	5.0000e-005	2.4693
Total		**0.0589**	**0.5206**	**0.3403**	**3.2100e-003**		**0.0407**	**0.0407**		**0.0407**	**0.0407**	**0.0000**	**583.0589**	**583.0589**	**0.0112**	**0.0107**	**586.5237**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.4572e+006	323.2242	0.0323	6.6900e-003	326.0252
Enclosed Parking Structure	4.63352e+006	609.5020	0.0610	0.0126	614.7837
General Office Building	3.744e+006	492.4925	0.0493	0.0102	496.7602
Strip Mall	104800	13.7856	1.3800e-003	2.9000e-004	13.9050
Total		**1,439.0043**	**0.1439**	**0.0298**	**1,451.4740**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	2.4572e+006	323.2242	0.0323	6.6900e-003	326.0252
Enclosed Parking Structure	4.63352e+006	609.5020	0.0610	0.0126	614.7837
General Office Building	3.744e+006	492.4925	0.0493	0.0102	496.7602
Strip Mall	104800	13.7856	1.3800e-003	2.9000e-004	13.9050
Total		**1,439.0043**	**0.1439**	**0.0298**	**1,451.4740**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2605	0.0703	4.3611	3.6000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	30.3511	30.3511	7.4000e-003	4.3000e-004	30.6630
Unmitigated	4.2605	0.0703	4.3611	3.6000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	30.3511	30.3511	7.4000e-003	4.3000e-004	30.6630

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	0.5884					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5365					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.3500e-003	0.0201	8.5400e-003	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	23.2501	23.2501	4.5000e-004	4.3000e-004	23.3882
Landscaping	0.1332	0.0502	4.3525	2.3000e-004		0.0240	0.0240		0.0240	0.0240	0.0000	7.1010	7.1010	6.9500e-003	0.0000	7.2748
Total	**4.2605**	**0.0703**	**4.3611**	**3.6000e-004**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**30.3511**	**30.3511**	**7.4000e-003**	**4.3000e-004**	**30.6630**

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	0.5884					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5365					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.3500e-003	0.0201	8.5400e-003	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	23.2501	23.2501	4.5000e-004	4.3000e-004	23.3882
Landscaping	0.1332	0.0502	4.3525	2.3000e-004		0.0240	0.0240		0.0240	0.0240	0.0000	7.1010	7.1010	6.9500e-003	0.0000	7.2748
Total	**4.2605**	**0.0703**	**4.3611**	**3.6000e-004**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**30.3511**	**30.3511**	**7.4000e-003**	**4.3000e-004**	**30.6630**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	120.9113	3.0064	0.0727	217.7253
Unmitigated	120.9113	3.0064	0.0727	217.7253

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	37.9196 / 23.9059	50.0265	1.2394	0.0300	89.9403
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	53.3201 / 32.6801	69.9136	1.7427	0.0421	126.0341
Strip Mall	0.740725 / 0.453993	0.9712	0.0242	5.9000e-004	1.7509
Total		**120.9113**	**3.0064**	**0.0727**	**217.7253**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	37.9196 / 23.9059	50.0265	1.2394	0.0300	89.9403
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	53.3201 / 32.6801	69.9136	1.7427	0.0421	126.0341
Strip Mall	0.740725 / 0.453993	0.9712	0.0242	5.9000e-004	1.7509
Total		**120.9113**	**3.0064**	**0.0727**	**217.7253**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	113.1106	6.6847	0.0000	280.2268
Unmitigated	113.1106	6.6847	0.0000	280.2268

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	267.72	54.3447	3.2117	0.0000	134.6368
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	279	56.6345	3.3470	0.0000	140.3095
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
Total		**113.1106**	**6.6846**	**0.0000**	**280.2268**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Apartments Mid Rise	267.72	54.3447	3.2117	0.0000	134.6368
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	279	56.6345	3.3470	0.0000	140.3095
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
Total		**113.1106**	**6.6846**	**0.0000**	**280.2268**

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

4300 Stevens Creek Blvd, San Jose - Existing - Santa Clara County, Annual

4300 Stevens Creek Blvd, San Jose - Existing

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	163.00	1000sqft	9.25	163,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2021
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 - 2020 PG&E CO2 rate

Land Use - 9.25ac net site area

Vehicle Trips - Trip rates from traffic report.

Woodstoves -

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LotAcreage	3.74	9.25

tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripNumber	0.00	4,375.00
tblTripsAndVMT	HaulingTripNumber	0.00	150.00
tblVehicleTrips	ST_TR	2.46	2.02
tblVehicleTrips	SU_TR	1.05	0.86
tblVehicleTrips	WD_TR	11.03	9.00

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	0.7217	1.0000e-005	1.5000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9100e-003	2.9100e-003	1.0000e-005	0.0000	3.1100e-003
Energy	0.0170	0.1545	0.1297	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	435.7257	435.7257	0.0300	8.6200e-003	439.0437
Mobile	0.2820	1.1870	3.3355	0.0111	0.9908	9.5500e-003	1.0003	0.2652	8.9300e-003	0.2742	0.0000	1,011.1545	1,011.1545	0.0351	0.0000	1,012.0314
Waste						0.0000	0.0000		0.0000	0.0000	30.7714	0.0000	30.7714	1.8185	0.0000	76.2348
Water						0.0000	0.0000		0.0000	0.0000	9.1910	28.7954	37.9864	0.9469	0.0229	68.4785
Total	**1.0207**	**1.3414**	**3.4668**	**0.0120**	**0.9908**	**0.0213**	**1.0121**	**0.2652**	**0.0207**	**0.2859**	**39.9624**	**1,475.6785**	**1,515.6410**	**2.8305**	**0.0315**	**1,595.7916**

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	0.7217	1.0000e-005	1.5000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9100e-003	2.9100e-003	1.0000e-005	0.0000	3.1100e-003
Energy	0.0170	0.1545	0.1297	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	435.7257	435.7257	0.0300	8.6200e-003	439.0437
Mobile	0.2820	1.1870	3.3355	0.0111	0.9908	9.5500e-003	1.0003	0.2652	8.9300e-003	0.2742	0.0000	1,011.1545	1,011.1545	0.0351	0.0000	1,012.0314
Waste						0.0000	0.0000		0.0000	0.0000	30.7714	0.0000	30.7714	1.8185	0.0000	76.2348
Water						0.0000	0.0000		0.0000	0.0000	9.1910	28.7954	37.9864	0.9469	0.0229	68.4785
Total	**1.0207**	**1.3414**	**3.4668**	**0.0120**	**0.9908**	**0.0213**	**1.0121**	**0.2652**	**0.0207**	**0.2859**	**39.9624**	**1,475.6785**	**1,515.6410**	**2.8305**	**0.0315**	**1,595.7916**

	ROG	NOx	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**

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	0.2820	1.1870	3.3355	0.0111	0.9908	9.5500e-003	1.0003	0.2652	8.9300e-003	0.2742	0.0000	1,011.1545	1,011.1545	0.0351	0.0000	1,012.0314
Unmitigated	0.2820	1.1870	3.3355	0.0111	0.9908	9.5500e-003	1.0003	0.2652	8.9300e-003	0.2742	0.0000	1,011.1545	1,011.1545	0.0351	0.0000	1,012.0314

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,467.00	329.26	140.18	2,664,383	2,664,383
Total	1,467.00	329.26	140.18	2,664,383	2,664,383

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

5.0 Energy Detail

Historical Energy Use: N

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	267.5876	267.5876	0.0268	5.5400e-003	269.9064
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	267.5876	267.5876	0.0268	5.5400e-003	269.9064
NaturalGas Mitigated	0.0170	0.1545	0.1297	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	168.1382	168.1382	3.2200e-003	3.0800e-003	169.1373
NaturalGas Unmitigated	0.0170	0.1545	0.1297	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	168.1382	168.1382	3.2200e-003	3.0800e-003	169.1373

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					
General Office Building	3.15079e+006	0.0170	0.1545	0.1297	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	168.1382	168.1382	3.2200e-003	3.0800e-003	169.1373
Total		**0.0170**	**0.1545**	**0.1297**	**9.3000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**	**0.0000**	**168.1382**	**168.1382**	**3.2200e-003**	**3.0800e-003**	**169.1373**

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					
General Office Building	3.15079e+006	0.0170	0.1545	0.1297	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	168.1382	168.1382	3.2200e-003	3.0800e-003	169.1373
Total		**0.0170**	**0.1545**	**0.1297**	**9.3000e-004**		**0.0117**	**0.0117**		**0.0117**	**0.0117**	**0.0000**	**168.1382**	**168.1382**	**3.2200e-003**	**3.0800e-003**	**169.1373**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
General Office Building	2.03424e+006	267.5876	0.0268	5.5400e-003	269.9064
Total		**267.5876**	**0.0268**	**5.5400e-003**	**269.9064**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.03424e+006	267.5876	0.0268	5.5400e-003	269.9064
Total		**267.5876**	**0.0268**	**5.5400e-003**	**269.9064**

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	0.7217	1.0000e-005	1.5000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9100e-003	2.9100e-003	1.0000e-005	0.0000	3.1100e-003

Unmitigated	0.7217	1.0000e-005	1.5000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9100e-003	2.9100e-003	1.0000e-005	0.0000	3.1100e-003

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	0.0850					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9100e-003	2.9100e-003	1.0000e-005	0.0000	3.1100e-003
Total	**0.7217**	**1.0000e-005**	**1.5000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9100e-003**	**2.9100e-003**	**1.0000e-005**	**0.0000**	**3.1100e-003**

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	0.0850					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6366					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.5000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9100e-003	2.9100e-003	1.0000e-005	0.0000	3.1100e-003
Total	**0.7217**	**1.0000e-005**	**1.5000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9100e-003**	**2.9100e-003**	**1.0000e-005**	**0.0000**	**3.1100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	37.9864	0.9469	0.0229	68.4785
Unmitigated	37.9864	0.9469	0.0229	68.4785

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	28.9706 / 17.7562	37.9864	0.9469	0.0229	68.4785
Total		**37.9864**	**0.9469**	**0.0229**	**68.4785**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	28.9706 / 17.7562	37.9864	0.9469	0.0229	68.4785
Total		**37.9864**	**0.9469**	**0.0229**	**68.4785**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	30.7714	1.8185	0.0000	76.2348
Unmitigated	30.7714	1.8185	0.0000	76.2348

8.2 Waste by Land Use

Unmitigated

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

General Office Building	151.59	30.7714	1.8185	0.0000	76.2348
Total		**30.7714**	**1.8185**	**0.0000**	**76.2348**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	151.59	30.7714	1.8185	0.0000	76.2348
Total		**30.7714**	**1.8185**	**0.0000**	**76.2348**

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

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

4300 Stevens Creek Blvd, San Jose - Construction TAC, Tier 2/DPF Level 3

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	582.00	Dwelling Unit	9.25	582,000.00	1665
General Office Building	300.00	1000sqft	0.00	300,000.00	0
Strip Mall	10.00	1000sqft	0.00	10,000.00	0
Enclosed Parking Structure	2,043.00	Space	0.00	817,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2021
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 - 2020 PG&E CO2 rate

Land Use - 9.25ac net site area

Construction Phase - Anticipated schedule provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Grading - 35,000cy export

Demolition - 210,000sf demo

Trips and VMT - Paving: 150 one-way asphalt truck trips. 0.5mi trip lengths to compute risk from on- and near-site vehicle travel.

Vehicle Trips - Trip rates from traffic report. Retail pass-by set to zero.

Woodstoves - No woodstoves or wood fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 2 engines/DPF Level 3. BAAQMD BMPs

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	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	217.00
tblConstructionPhase	NumDays	230.00	305.00

tblConstructionPhase	NumDays	20.00	42.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	8/22/2019	6/30/2020
tblConstructionPhase	PhaseEndDate	6/27/2019	1/31/2020
tblConstructionPhase	PhaseEndDate	6/28/2018	7/30/2018
tblConstructionPhase	PhaseEndDate	8/9/2018	11/30/2018
tblConstructionPhase	PhaseEndDate	7/25/2019	9/13/2019
tblConstructionPhase	PhaseEndDate	7/12/2018	10/30/2018
tblConstructionPhase	PhaseStartDate	7/26/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	8/10/2018	12/1/2018
tblConstructionPhase	PhaseStartDate	7/13/2018	9/1/2018
tblConstructionPhase	PhaseStartDate	6/28/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	6/29/2018	8/1/2018
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	87.30	186.24
tblFireplaces	NumberWood	98.94	0.00
tblGrading	MaterialExported	0.00	35,000.00
tblLandUse	LotAcreage	15.32	9.25
tblLandUse	LotAcreage	6.89	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	18.39	0.00
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes

tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.40
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.40
tblOffRoadEquipment	UsageHours	8.00	0.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	150.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50

tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	6.39	6.01
tblVehicleTrips	ST_TR	2.46	2.34
tblVehicleTrips	ST_TR	42.04	23.54
tblVehicleTrips	SU_TR	5.86	5.51
tblVehicleTrips	SU_TR	1.05	1.00
tblVehicleTrips	SU_TR	20.43	11.44
tblVehicleTrips	WD_TR	6.65	6.27
tblVehicleTrips	WD_TR	11.03	10.45
tblVehicleTrips	WD_TR	44.32	24.60
tblWoodstoves	NumberCatalytic	11.64	0.00
tblWoodstoves	NumberNoncatalytic	11.64	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

Year	tons/yr										MT/yr					
2018	0.1961	2.1974	1.2358	2.3100e-003	0.3179	0.0933	0.4112	0.1297	0.0866	0.2163	0.0000	211.8599	211.8599	0.0520	0.0000	213.1599
2019	2.8793	5.0838	3.7782	6.6800e-003	0.0605	0.1810	0.2415	0.0167	0.1705	0.1872	0.0000	604.2569	604.2569	0.1098	0.0000	607.0028
2020	3.5934	0.5597	0.5520	9.3000e-004	9.2900e-003	0.0214	0.0307	2.5300e-003	0.0205	0.0230	0.0000	82.1862	82.1862	0.0136	0.0000	82.5261
Maximum	**3.5934**	**5.0838**	**3.7782**	**6.6800e-003**	**0.3179**	**0.1810**	**0.4112**	**0.1297**	**0.1705**	**0.2163**	**0.0000**	**604.2569**	**604.2569**	**0.1098**	**0.0000**	**607.0028**

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					
2018	0.0858	1.9715	1.3162	2.3100e-003	0.0766	7.5900e-003	0.0841	0.0306	7.5500e-003	0.0381	0.0000	211.8597	211.8597	0.0520	0.0000	213.1597
2019	2.7061	5.4802	3.8851	6.6800e-003	0.0605	0.0236	0.0841	0.0167	0.0234	0.0400	0.0000	604.2565	604.2565	0.1098	0.0000	607.0024
2020	3.5757	0.7176	0.5755	9.3000e-004	9.2900e-003	3.5000e-003	0.0128	2.5300e-003	3.4800e-003	6.0100e-003	0.0000	82.1862	82.1862	0.0136	0.0000	82.5260
Maximum	**3.5757**	**5.4802**	**3.8851**	**6.6800e-003**	**0.0766**	**0.0236**	**0.0841**	**0.0306**	**0.0234**	**0.0400**	**0.0000**	**604.2565**	**604.2565**	**0.1098**	**0.0000**	**607.0024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.52**	**-4.19**	**-3.79**	**0.00**	**62.25**	**88.26**	**73.50**	**66.57**	**87.61**	**80.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2018**	**8-31-2018**	0.9717	0.8129
2	**9-1-2018**	**11-30-2018**	0.9642	0.7978
3	**12-1-2018**	**2-28-2019**	1.3666	1.3759
4	**3-1-2019**	**5-31-2019**	1.3704	1.4097
5	**6-1-2019**	**8-31-2019**	1.3760	1.4153

6	**9-1-2019**	**11-30-2019**	3.2545	3.3451
7	**12-1-2019**	**2-29-2020**	2.7402	2.8389
8	**3-1-2020**	**5-31-2020**	1.8761	1.9276
9	**6-1-2020**	**8-31-2020**	0.6119	0.6287
		Highest	3.2545	3.3451

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	6/1/2018	7/30/2018	5	42	
2	Site Preparation	Site Preparation	8/1/2018	10/30/2018	5	65	
3	Grading	Grading	9/1/2018	11/30/2018	5	65	
4	Building Construction	Building Construction	12/1/2018	1/31/2020	5	305	
5	Paving	Paving	9/1/2019	9/13/2019	5	10	
6	Architectural Coating	Architectural Coating	9/1/2019	6/30/2020	5	217	
7	Trenching	Trenching	8/1/2018	11/30/2018	5	88	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5.69

Acres of Paving: 0

Residential Indoor: 1,178,550; Residential Outdoor: 392,850; Non-Residential Indoor: 465,000; Non-Residential Outdoor: 155,000;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	6.70	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	0.20	158	0.38
Building Construction	Cranes	1	7.00	231	0.29

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	0.40	80	0.38
Demolition	Rubber Tired Dozers	2	7.60	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	0.20	187	0.41
Grading	Tractors/Loaders/Backhoes	2	0.30	97	0.37
Paving	Paving Equipment	2	0.20	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	0.40	97	0.37
Site Preparation	Rubber Tired Dozers	3	0.10	247	0.40
Building Construction	Welders	1	8.00	46	0.45
Grading	Scrapers	2	0.30	367	0.48
Paving	Tractors/Loaders/Backhoes	1	0.20	97	0.37
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38

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	6	15.00	0.00	955.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	4,375.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	9	861.00	247.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	150.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	172.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2018

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					0.1034	0.0000	0.1034	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7467	0.4257	7.4000e-004		0.0379	0.0379		0.0353	0.0353	0.0000	67.2963	67.2963	0.0183	0.0000	67.7540
Total	**0.0727**	**0.7467**	**0.4257**	**7.4000e-004**	**0.1034**	**0.0379**	**0.1413**	**0.0157**	**0.0353**	**0.0510**	**0.0000**	**67.2963**	**67.2963**	**0.0183**	**0.0000**	**67.7540**

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	1.1700e-003	0.0499	8.7500e-003	6.0000e-005	2.1000e-004	6.0000e-005	2.7000e-004	6.0000e-005	5.0000e-005	1.1000e-004	0.0000	5.3711	5.3711	7.3000e-004	0.0000	5.3895
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	3.9000e-004	1.7000e-004	2.2600e-003	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1697	0.1697	1.0000e-005	0.0000	0.1700

Total	**1.5600e-003**	**0.0501**	**0.0110**	**6.0000e-005**	**3.3000e-004**	**6.0000e-005**	**3.9000e-004**	**9.0000e-005**	**5.0000e-005**	**1.4000e-004**	**0.0000**	**5.5409**	**5.5409**	**7.4000e-004**	**0.0000**	**5.5595**

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					0.0233	0.0000	0.0233	3.5200e-003	0.0000	3.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0240	0.6256	0.4685	7.4000e-004		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	67.2962	67.2962	0.0183	0.0000	67.7540
Total	**0.0240**	**0.6256**	**0.4685**	**7.4000e-004**	**0.0233**	**2.6200e-003**	**0.0259**	**3.5200e-003**	**2.6200e-003**	**6.1400e-003**	**0.0000**	**67.2962**	**67.2962**	**0.0183**	**0.0000**	**67.7540**

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	1.1700e-003	0.0499	8.7500e-003	6.0000e-005	2.1000e-004	6.0000e-005	2.7000e-004	6.0000e-005	5.0000e-005	1.1000e-004	0.0000	5.3711	5.3711	7.3000e-004	0.0000	5.3895
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	3.9000e-004	1.7000e-004	2.2600e-003	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1697	0.1697	1.0000e-005	0.0000	0.1700
Total	**1.5600e-003**	**0.0501**	**0.0110**	**6.0000e-005**	**3.3000e-004**	**6.0000e-005**	**3.9000e-004**	**9.0000e-005**	**5.0000e-005**	**1.4000e-004**	**0.0000**	**5.5409**	**5.5409**	**7.4000e-004**	**0.0000**	**5.5595**

3.3 Site Preparation - 2018

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					7.3400e-003	0.0000	7.3400e-003	4.0300e-003	0.0000	4.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e-003	0.0324	0.0205	3.0000e-005		1.9600e-003	1.9600e-003		1.8000e-003	1.8000e-003	0.0000	2.7954	2.7954	8.7000e-004	0.0000	2.8171
Total	**3.1500e-003**	**0.0324**	**0.0205**	**3.0000e-005**	**7.3400e-003**	**1.9600e-003**	**9.3000e-003**	**4.0300e-003**	**1.8000e-003**	**5.8300e-003**	**0.0000**	**2.7954**	**2.7954**	**8.7000e-004**	**0.0000**	**2.8171**

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	7.2000e-004	3.2000e-004	4.2000e-003	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3152	0.3152	2.0000e-005	0.0000	0.3158
Total	**7.2000e-004**	**3.2000e-004**	**4.2000e-003**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3152**	**0.3152**	**2.0000e-005**	**0.0000**	**0.3158**

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					1.6500e-003	0.0000	1.6500e-003	9.1000e-004	0.0000	9.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	0.0284	0.0208	3.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.7954	2.7954	8.7000e-004	0.0000	2.8171
Total	**1.2000e-003**	**0.0284**	**0.0208**	**3.0000e-005**	**1.6500e-003**	**1.5000e-004**	**1.8000e-003**	**9.1000e-004**	**1.5000e-004**	**1.0600e-003**	**0.0000**	**2.7954**	**2.7954**	**8.7000e-004**	**0.0000**	**2.8171**

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	7.2000e-004	3.2000e-004	4.2000e-003	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3152	0.3152	2.0000e-005	0.0000	0.3158
Total	**7.2000e-004**	**3.2000e-004**	**4.2000e-003**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3152**	**0.3152**	**2.0000e-005**	**0.0000**	**0.3158**

3.4 Grading - 2018

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					0.2007	0.0000	0.2007	0.1082	0.0000	0.1082	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0423	0.4602	0.1763	3.4000e-004		0.0221	0.0221		0.0203	0.0203	0.0000	30.7009	30.7009	9.5600e-003	0.0000	30.9398
Total	**0.0423**	**0.4602**	**0.1763**	**3.4000e-004**	**0.2007**	**0.0221**	**0.2228**	**0.1082**	**0.0203**	**0.1285**	**0.0000**	**30.7009**	**30.7009**	**9.5600e-003**	**0.0000**	**30.9398**

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	5.3400e-003	0.2285	0.0401	2.6000e-004	9.7000e-004	2.6000e-004	1.2400e-003	2.7000e-004	2.5000e-004	5.2000e-004	0.0000	24.6060	24.6060	3.3700e-003	0.0000	24.6901
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-004	3.5000e-004	4.6700e-003	0.0000	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.3502	0.3502	2.0000e-005	0.0000	0.3508
Total	**6.1400e-003**	**0.2289**	**0.0447**	**2.6000e-004**	**1.2100e-003**	**2.7000e-004**	**1.4900e-003**	**3.4000e-004**	**2.6000e-004**	**5.9000e-004**	**0.0000**	**24.9562**	**24.9562**	**3.3900e-003**	**0.0000**	**25.0409**

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					0.0452	0.0000	0.0452	0.0244	0.0000	0.0244	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5200e-003	0.2829	0.1820	3.4000e-004		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	30.7009	30.7009	9.5600e-003	0.0000	30.9398
Total	**8.5200e-003**	**0.2829**	**0.1820**	**3.4000e-004**	**0.0452**	**9.4000e-004**	**0.0461**	**0.0244**	**9.4000e-004**	**0.0253**	**0.0000**	**30.7009**	**30.7009**	**9.5600e-003**	**0.0000**	**30.9398**

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	5.3400e-003	0.2285	0.0401	2.6000e-004	9.7000e-004	2.6000e-004	1.2400e-003	2.7000e-004	2.5000e-004	5.2000e-004	0.0000	24.6060	24.6060	3.3700e-003	0.0000	24.6901
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-004	3.5000e-004	4.6700e-003	0.0000	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.3502	0.3502	2.0000e-005	0.0000	0.3508
Total	**6.1400e-003**	**0.2289**	**0.0447**	**2.6000e-004**	**1.2100e-003**	**2.7000e-004**	**1.4900e-003**	**3.4000e-004**	**2.6000e-004**	**5.9000e-004**	**0.0000**	**24.9562**	**24.9562**	**3.3900e-003**	**0.0000**	**25.0409**

3.5 Building Construction - 2018

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	0.0281	0.2456	0.1846	2.8000e-004		0.0158	0.0158		0.0148	0.0148	0.0000	24.9656	24.9656	6.1200e-003	0.0000	25.1185
Total	**0.0281**	**0.2456**	**0.1846**	**2.8000e-004**		**0.0158**	**0.0158**		**0.0148**	**0.0148**	**0.0000**	**24.9656**	**24.9656**	**6.1200e-003**	**0.0000**	**25.1185**

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	5.6200e-003	0.1760	0.0550	1.8000e-004	1.2300e-003	3.4000e-004	1.5800e-003	3.6000e-004	3.3000e-004	6.9000e-004	0.0000	17.0224	17.0224	2.2800e-003	0.0000	17.0793
Worker	0.0112	4.9300e-003	0.0649	5.0000e-005	3.4000e-003	8.0000e-005	3.4800e-003	9.2000e-004	7.0000e-005	9.9000e-004	0.0000	4.8710	4.8710	3.4000e-004	0.0000	4.8795
Total	**0.0168**	**0.1809**	**0.1199**	**2.3000e-004**	**4.6300e-003**	**4.2000e-004**	**5.0600e-003**	**1.2800e-003**	**4.0000e-004**	**1.6800e-003**	**0.0000**	**21.8933**	**21.8933**	**2.6200e-003**	**0.0000**	**21.9588**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.2473	0.1877	2.8000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	24.9655	24.9655	6.1200e-003	0.0000	25.1184
Total	**0.0114**	**0.2473**	**0.1877**	**2.8000e-004**		**1.4200e-003**	**1.4200e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**24.9655**	**24.9655**	**6.1200e-003**	**0.0000**	**25.1184**

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	5.6200e-003	0.1760	0.0550	1.8000e-004	1.2300e-003	3.4000e-004	1.5800e-003	3.6000e-004	3.3000e-004	6.9000e-004	0.0000	17.0224	17.0224	2.2800e-003	0.0000	17.0793
Worker	0.0112	4.9300e-003	0.0649	5.0000e-005	3.4000e-003	8.0000e-005	3.4800e-003	9.2000e-004	7.0000e-005	9.9000e-004	0.0000	4.8710	4.8710	3.4000e-004	0.0000	4.8795
Total	**0.0168**	**0.1809**	**0.1199**	**2.3000e-004**	**4.6300e-003**	**4.2000e-004**	**5.0600e-003**	**1.2800e-003**	**4.0000e-004**	**1.6800e-003**	**0.0000**	**21.8933**	**21.8933**	**2.6200e-003**	**0.0000**	**21.9588**

3.5 Building Construction - 2019

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	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8110**	**306.8110**	**0.0747**	**0.0000**	**308.6795**

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	0.0633	2.1263	0.6186	2.2100e-003	0.0153	3.6700e-003	0.0190	4.5100e-003	3.5100e-003	8.0200e-003	0.0000	211.7305	211.7305	0.0266	0.0000	212.3965
Worker	0.1240	0.0531	0.7122	6.6000e-004	0.0423	9.3000e-004	0.0432	0.0114	8.5000e-004	0.0123	0.0000	58.8115	58.8115	3.6800e-003	0.0000	58.9035
Total	**0.1873**	**2.1793**	**1.3308**	**2.8700e-003**	**0.0576**	**4.6000e-003**	**0.0622**	**0.0159**	**4.3600e-003**	**0.0203**	**0.0000**	**270.5420**	**270.5420**	**0.0303**	**0.0000**	**271.3000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1411	3.0739	2.3325	3.5100e-003		0.0177	0.0177		0.0177	0.0177	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792
Total	**0.1411**	**3.0739**	**2.3325**	**3.5100e-003**		**0.0177**	**0.0177**		**0.0177**	**0.0177**	**0.0000**	**306.8106**	**306.8106**	**0.0747**	**0.0000**	**308.6792**

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	0.0633	2.1263	0.6186	2.2100e-003	0.0153	3.6700e-003	0.0190	4.5100e-003	3.5100e-003	8.0200e-003	0.0000	211.7305	211.7305	0.0266	0.0000	212.3965
Worker	0.1240	0.0531	0.7122	6.6000e-004	0.0423	9.3000e-004	0.0432	0.0114	8.5000e-004	0.0123	0.0000	58.8115	58.8115	3.6800e-003	0.0000	58.9035
Total	**0.1873**	**2.1793**	**1.3308**	**2.8700e-003**	**0.0576**	**4.6000e-003**	**0.0622**	**0.0159**	**4.3600e-003**	**0.0203**	**0.0000**	**270.5420**	**270.5420**	**0.0303**	**0.0000**	**271.3000**

3.5 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	0.0244	0.2206	0.1938	3.1000e-004		0.0129	0.0129		0.0121	0.0121	0.0000	26.6352	26.6352	6.5000e-003	0.0000	26.7976

Total	**0.0244**	**0.2206**	**0.1938**	**3.1000e-004**		**0.0129**	**0.0129**		**0.0121**	**0.0121**	**0.0000**	**26.6352**	**26.6352**	**6.5000e-003**	**0.0000**	**26.7976**

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	4.9000e-003	0.1794	0.0501	1.9000e-004	1.3500e-003	2.0000e-004	1.5500e-003	4.0000e-004	1.9000e-004	5.9000e-004	0.0000	18.7188	18.7188	2.1300e-003	0.0000	18.7721
Worker	9.8500e-003	4.0700e-003	0.0556	6.0000e-005	3.7300e-003	8.0000e-005	3.8100e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	5.0268	5.0268	2.8000e-004	0.0000	5.0338
Total	**0.0148**	**0.1835**	**0.1057**	**2.5000e-004**	**5.0800e-003**	**2.8000e-004**	**5.3600e-003**	**1.4000e-003**	**2.6000e-004**	**1.6700e-003**	**0.0000**	**23.7455**	**23.7455**	**2.4100e-003**	**0.0000**	**23.8058**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0124	0.2709	0.2056	3.1000e-004		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	26.6351	26.6351	6.5000e-003	0.0000	26.7976
Total	**0.0124**	**0.2709**	**0.2056**	**3.1000e-004**		**1.5600e-003**	**1.5600e-003**		**1.5600e-003**	**1.5600e-003**	**0.0000**	**26.6351**	**26.6351**	**6.5000e-003**	**0.0000**	**26.7976**

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	4.9000e-003	0.1794	0.0501	1.9000e-004	1.3500e-003	2.0000e-004	1.5500e-003	4.0000e-004	1.9000e-004	5.9000e-004	0.0000	18.7188	18.7188	2.1300e-003	0.0000	18.7721
Worker	9.8500e-003	4.0700e-003	0.0556	6.0000e-005	3.7300e-003	8.0000e-005	3.8100e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	5.0268	5.0268	2.8000e-004	0.0000	5.0338
Total	**0.0148**	**0.1835**	**0.1057**	**2.5000e-004**	**5.0800e-003**	**2.8000e-004**	**5.3600e-003**	**1.4000e-003**	**2.6000e-004**	**1.6700e-003**	**0.0000**	**23.7455**	**23.7455**	**2.4100e-003**	**0.0000**	**23.8058**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0700e-003	0.0332	0.0309	5.0000e-005		1.6500e-003	1.6500e-003		1.5200e-003	1.5200e-003	0.0000	4.4669	4.4669	1.4100e-003	0.0000	4.5023
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0700e-003**	**0.0332**	**0.0309**	**5.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**4.4669**	**4.4669**	**1.4100e-003**	**0.0000**	**4.5023**

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	1.7000e-004	7.6300e-003	1.2500e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.8451	0.8451	1.1000e-004	0.0000	0.8479
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-004	4.0000e-005	5.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0472
Total	**2.7000e-004**	**7.6700e-003**	**1.8200e-003**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.8922**	**0.8922**	**1.1000e-004**	**0.0000**	**0.8950**

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	1.9500e-003	0.0427	0.0377	5.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	4.4669	4.4669	1.4100e-003	0.0000	4.5023
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9500e-003**	**0.0427**	**0.0377**	**5.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**4.4669**	**4.4669**	**1.4100e-003**	**0.0000**	**4.5023**

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	1.7000e-004	7.6300e-003	1.2500e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.8451	0.8451	1.1000e-004	0.0000	0.8479
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-004	4.0000e-005	5.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0472
Total	**2.7000e-004**	**7.6700e-003**	**1.8200e-003**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.8922**	**0.8922**	**1.1000e-004**	**0.0000**	**0.8950**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1093	0.1274	2.0000e-004		6.3200e-003	6.3200e-003		6.2700e-003	6.2700e-003	0.0000	17.6286	17.6286	3.0000e-003	0.0000	17.7036
Total	**2.3723**	**0.1093**	**0.1274**	**2.0000e-004**		**6.3200e-003**	**6.3200e-003**		**6.2700e-003**	**6.2700e-003**	**0.0000**	**17.6286**	**17.6286**	**3.0000e-003**	**0.0000**	**17.7036**

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	8.2600e-003	3.5300e-003	0.0474	4.0000e-005	2.8200e-003	6.0000e-005	2.8800e-003	7.6000e-004	6.0000e-005	8.2000e-004	0.0000	3.9162	3.9162	2.5000e-004	0.0000	3.9223
Total	**8.2600e-003**	**3.5300e-003**	**0.0474**	**4.0000e-005**	**2.8200e-003**	**6.0000e-005**	**2.8800e-003**	**7.6000e-004**	**6.0000e-005**	**8.2000e-004**	**0.0000**	**3.9162**	**3.9162**	**2.5000e-004**	**0.0000**	**3.9223**

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	2.3590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3800e-003	0.1731	0.1348	2.0000e-004		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003	0.0000	17.6285	17.6285	3.0000e-003	0.0000	17.7036
Total	**2.3673**	**0.1731**	**0.1348**	**2.0000e-004**		**1.0500e-003**	**1.0500e-003**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**17.6285**	**17.6285**	**3.0000e-003**	**0.0000**	**17.7036**

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	8.2600e-003	3.5300e-003	0.0474	4.0000e-005	2.8200e-003	6.0000e-005	2.8800e-003	7.6000e-004	6.0000e-005	8.2000e-004	0.0000	3.9162	3.9162	2.5000e-004	0.0000	3.9223
Total	**8.2600e-003**	**3.5300e-003**	**0.0474**	**4.0000e-005**	**2.8200e-003**	**6.0000e-005**	**2.8800e-003**	**7.6000e-004**	**6.0000e-005**	**8.2000e-004**	**0.0000**	**3.9162**	**3.9162**	**2.5000e-004**	**0.0000**	**3.9223**

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	3.5249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1510	0.1898	3.0000e-004		8.1400e-003	8.1400e-003		8.0600e-003	8.0600e-003	0.0000	26.1297	26.1297	4.3700e-003	0.0000	26.2389
Total	**3.5432**	**0.1510**	**0.1898**	**3.0000e-004**		**8.1400e-003**	**8.1400e-003**		**8.0600e-003**	**8.0600e-003**	**0.0000**	**26.1297**	**26.1297**	**4.3700e-003**	**0.0000**	**26.2389**

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	0.0111	4.6000e-003	0.0628	6.0000e-005	4.2100e-003	9.0000e-005	4.3000e-003	1.1300e-003	8.0000e-005	1.2200e-003	0.0000	5.6759	5.6759	3.2000e-004	0.0000	5.6838
Total	**0.0111**	**4.6000e-003**	**0.0628**	**6.0000e-005**	**4.2100e-003**	**9.0000e-005**	**4.3000e-003**	**1.1300e-003**	**8.0000e-005**	**1.2200e-003**	**0.0000**	**5.6759**	**5.6759**	**3.2000e-004**	**0.0000**	**5.6838**

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	3.5249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.2586	0.2015	3.0000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003	0.0000	26.1296	26.1296	4.3700e-003	0.0000	26.2389

Total	**3.5374**	**0.2586**	**0.2015**	**3.0000e-004**		**1.5700e-003**	**1.5700e-003**		**1.5700e-003**	**1.5700e-003**	**0.0000**	**26.1296**	**26.1296**	**4.3700e-003**	**0.0000**	**26.2389**

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	0.0111	4.6000e-003	0.0628	6.0000e-005	4.2100e-003	9.0000e-005	4.3000e-003	1.1300e-003	8.0000e-005	1.2200e-003	0.0000	5.6759	5.6759	3.2000e-004	0.0000	5.6838
Total	**0.0111**	**4.6000e-003**	**0.0628**	**6.0000e-005**	**4.2100e-003**	**9.0000e-005**	**4.3000e-003**	**1.1300e-003**	**8.0000e-005**	**1.2200e-003**	**0.0000**	**5.6759**	**5.6759**	**3.2000e-004**	**0.0000**	**5.6838**

3.8 Trenching - 2018

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	0.0245	0.2521	0.2473	3.6000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	33.2777	33.2777	0.0104	0.0000	33.5367
Total	**0.0245**	**0.2521**	**0.2473**	**3.6000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**33.2777**	**33.2777**	**0.0104**	**0.0000**	**33.5367**

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	2.7000e-004	1.2000e-004	1.5800e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1185	0.1185	1.0000e-005	0.0000	0.1187
Total	**2.7000e-004**	**1.2000e-004**	**1.5800e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1185**	**0.1185**	**1.0000e-005**	**0.0000**	**0.1187**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0153	0.3270	0.2759	3.6000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	33.2777	33.2777	0.0104	0.0000	33.5367
Total	**0.0153**	**0.3270**	**0.2759**	**3.6000e-004**		**1.7000e-003**	**1.7000e-003**		**1.7000e-003**	**1.7000e-003**	**0.0000**	**33.2777**	**33.2777**	**0.0104**	**0.0000**	**33.5367**

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	2.7000e-004	1.2000e-004	1.5800e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1185	0.1185	1.0000e-005	0.0000	0.1187
Total	**2.7000e-004**	**1.2000e-004**	**1.5800e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1185**	**0.1185**	**1.0000e-005**	**0.0000**	**0.1187**

4300 Stevens Creek Blvd, San Jose - Santa Clara County, Annual

4300 Stevens Creek Blvd, San Jose - Construction TAC, Tier 4

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	582.00	Dwelling Unit	9.25	582,000.00	1665
General Office Building	300.00	1000sqft	0.00	300,000.00	0
Strip Mall	10.00	1000sqft	0.00	10,000.00	0
Enclosed Parking Structure	2,043.00	Space	0.00	817,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2021
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 - 2020 PG&E CO2 rate

Land Use - 9.25ac net site area

Construction Phase - Anticipated schedule provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Off-road Equipment - Proposed equip list provided by applicant

Grading - 35,000cy export

Demolition - 210,000sf demo

Trips and VMT - Paving: 150 one-way asphalt truck trips. 0.5mi trip lengths to compute risk from on- and near-site vehicle travel.

Vehicle Trips - Trip rates from traffic report. Retail pass-by set to zero.

Woodstoves - No woodstoves or wood fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines. BAAQMD BMPs

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	217.00
tblConstructionPhase	NumDays	230.00	305.00
tblConstructionPhase	NumDays	20.00	42.00
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	8/22/2019	6/30/2020
tblConstructionPhase	PhaseEndDate	6/27/2019	1/31/2020
tblConstructionPhase	PhaseEndDate	6/28/2018	7/30/2018
tblConstructionPhase	PhaseEndDate	8/9/2018	11/30/2018
tblConstructionPhase	PhaseEndDate	7/25/2019	9/13/2019
tblConstructionPhase	PhaseEndDate	7/12/2018	10/30/2018
tblConstructionPhase	PhaseStartDate	7/26/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	8/10/2018	12/1/2018
tblConstructionPhase	PhaseStartDate	7/13/2018	9/1/2018
tblConstructionPhase	PhaseStartDate	6/28/2019	9/1/2019
tblConstructionPhase	PhaseStartDate	6/29/2018	8/1/2018

tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	87.30	186.24
tblFireplaces	NumberWood	98.94	0.00
tblGrading	MaterialExported	0.00	35,000.00
tblLandUse	LotAcreage	15.32	9.25
tblLandUse	LotAcreage	6.89	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	18.39	0.00
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.40
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	0.20
tblOffRoadEquipment	UsageHours	8.00	0.40
tblOffRoadEquipment	UsageHours	8.00	0.10
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
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tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	150.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
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tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	60.00
tblVehicleTrips	ST_TR	6.39	6.01
tblVehicleTrips	ST_TR	2.46	2.34
tblVehicleTrips	ST_TR	42.04	23.54
tblVehicleTrips	SU_TR	5.86	5.51
tblVehicleTrips	SU_TR	1.05	1.00
tblVehicleTrips	SU_TR	20.43	11.44

tblVehicleTrips	WD_TR	6.65	6.27
tblVehicleTrips	WD_TR	11.03	10.45
tblVehicleTrips	WD_TR	44.32	24.60
tblWoodstoves	NumberCatalytic	11.64	0.00
tblWoodstoves	NumberNoncatalytic	11.64	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1961	2.1974	1.2358	2.3100e-003	0.3179	0.0933	0.4112	0.1297	0.0866	0.2163	0.0000	211.8599	211.8599	0.0520	0.0000	213.1599
2019	2.8793	5.0838	3.7782	6.6800e-003	0.0605	0.1810	0.2415	0.0167	0.1705	0.1872	0.0000	604.2569	604.2569	0.1098	0.0000	607.0028
2020	3.5934	0.5597	0.5520	9.3000e-004	9.2900e-003	0.0214	0.0307	2.5300e-003	0.0205	0.0230	0.0000	82.1862	82.1862	0.0136	0.0000	82.5261
Maximum	**3.5934**	**5.0838**	**3.7782**	**6.6800e-003**	**0.3179**	**0.1810**	**0.4112**	**0.1297**	**0.1705**	**0.2163**	**0.0000**	**604.2569**	**604.2569**	**0.1098**	**0.0000**	**607.0028**

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					

2018	0.0544	1.0945	1.3162	2.3100e-003	0.0766	4.0200e-003	0.0806	0.0306	3.9800e-003	0.0346	0.0000	211.8597	211.8597	0.0520	0.0000	213.1597
2019	2.6292	3.7234	3.8851	6.6800e-003	0.0605	0.0176	0.0781	0.0167	0.0174	0.0341	0.0000	604.2565	604.2565	0.1098	0.0000	607.0024
2020	3.5631	0.4434	0.5755	9.3000e-004	9.2900e-003	4.1000e-003	0.0134	2.5300e-003	4.0800e-003	6.6100e-003	0.0000	82.1862	82.1862	0.0136	0.0000	82.5260
Maximum	**3.5631**	**3.7234**	**3.8851**	**6.6800e-003**	**0.0766**	**0.0176**	**0.0806**	**0.0306**	**0.0174**	**0.0346**	**0.0000**	**604.2565**	**604.2565**	**0.1098**	**0.0000**	**607.0024**

	ROG	NOx	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	**6.33**	**32.90**	**-3.79**	**0.00**	**62.25**	**91.29**	**74.81**	**66.57**	**90.83**	**82.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2018**	**8-31-2018**	0.9717	0.3732
2	**9-1-2018**	**11-30-2018**	0.9642	0.4614
3	**12-1-2018**	**2-28-2019**	1.3666	0.9520
4	**3-1-2019**	**5-31-2019**	1.3704	0.9763
5	**6-1-2019**	**8-31-2019**	1.3760	0.9819
6	**9-1-2019**	**11-30-2019**	3.2545	2.8284
7	**12-1-2019**	**2-29-2020**	2.7402	2.4793
8	**3-1-2020**	**5-31-2020**	1.8761	1.8593
9	**6-1-2020**	**8-31-2020**	0.6119	0.6064
		Highest	3.2545	2.8284

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	6/1/2018	7/30/2018	5	42	
2	Site Preparation	Site Preparation	8/1/2018	10/30/2018	5	65	
3	Grading	Grading	9/1/2018	11/30/2018	5	65	
4	Building Construction	Building Construction	12/1/2018	1/31/2020	5	305	
5	Paving	Paving	9/1/2019	9/13/2019	5	10	

6	Architectural Coating	Architectural Coating	9/1/2019	6/30/2020	5	217	
7	Trenching	Trenching	8/1/2018	11/30/2018	5	88	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5.69

Acres of Paving: 0

Residential Indoor: 1,178,550; Residential Outdoor: 392,850; Non-Residential Indoor: 465,000; Non-Residential Outdoor: 155,000;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	6.70	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	0.20	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	0.40	80	0.38
Demolition	Rubber Tired Dozers	2	7.60	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	0.20	187	0.41
Grading	Tractors/Loaders/Backhoes	2	0.30	97	0.37
Paving	Paving Equipment	2	0.20	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	0.40	97	0.37
Site Preparation	Rubber Tired Dozers	3	0.10	247	0.40
Building Construction	Welders	1	8.00	46	0.45
Grading	Scrapers	2	0.30	367	0.48
Paving	Tractors/Loaders/Backhoes	1	0.20	97	0.37

Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38

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	6	15.00	0.00	955.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	4,375.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	9	861.00	247.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	150.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	172.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2018

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					0.1034	0.0000	0.1034	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0727	0.7467	0.4257	7.4000e-004		0.0379	0.0379		0.0353	0.0353	0.0000	67.2963	67.2963	0.0183	0.0000	67.7540
Total	**0.0727**	**0.7467**	**0.4257**	**7.4000e-004**	**0.1034**	**0.0379**	**0.1413**	**0.0157**	**0.0353**	**0.0510**	**0.0000**	**67.2963**	**67.2963**	**0.0183**	**0.0000**	**67.7540**

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	1.1700e-003	0.0499	8.7500e-003	6.0000e-005	2.1000e-004	6.0000e-005	2.7000e-004	6.0000e-005	5.0000e-005	1.1000e-004	0.0000	5.3711	5.3711	7.3000e-004	0.0000	5.3895
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	3.9000e-004	1.7000e-004	2.2600e-003	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1697	0.1697	1.0000e-005	0.0000	0.1700
Total	**1.5600e-003**	**0.0501**	**0.0110**	**6.0000e-005**	**3.3000e-004**	**6.0000e-005**	**3.9000e-004**	**9.0000e-005**	**5.0000e-005**	**1.4000e-004**	**0.0000**	**5.5409**	**5.5409**	**7.4000e-004**	**0.0000**	**5.5595**

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					0.0233	0.0000	0.0233	3.5200e-003	0.0000	3.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.2567	0.4685	7.4000e-004		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	67.2962	67.2962	0.0183	0.0000	67.7540
Total	**0.0113**	**0.2567**	**0.4685**	**7.4000e-004**	**0.0233**	**1.1800e-003**	**0.0244**	**3.5200e-003**	**1.1800e-003**	**4.7000e-003**	**0.0000**	**67.2962**	**67.2962**	**0.0183**	**0.0000**	**67.7540**

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	1.1700e-003	0.0499	8.7500e-003	6.0000e-005	2.1000e-004	6.0000e-005	2.7000e-004	6.0000e-005	5.0000e-005	1.1000e-004	0.0000	5.3711	5.3711	7.3000e-004	0.0000	5.3895
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	3.9000e-004	1.7000e-004	2.2600e-003	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1697	0.1697	1.0000e-005	0.0000	0.1700
Total	**1.5600e-003**	**0.0501**	**0.0110**	**6.0000e-005**	**3.3000e-004**	**6.0000e-005**	**3.9000e-004**	**9.0000e-005**	**5.0000e-005**	**1.4000e-004**	**0.0000**	**5.5409**	**5.5409**	**7.4000e-004**	**0.0000**	**5.5595**

3.3 Site Preparation - 2018

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					7.3400e-003	0.0000	7.3400e-003	4.0300e-003	0.0000	4.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e-003	0.0324	0.0205	3.0000e-005		1.9600e-003	1.9600e-003		1.8000e-003	1.8000e-003	0.0000	2.7954	2.7954	8.7000e-004	0.0000	2.8171
Total	**3.1500e-003**	**0.0324**	**0.0205**	**3.0000e-005**	**7.3400e-003**	**1.9600e-003**	**9.3000e-003**	**4.0300e-003**	**1.8000e-003**	**5.8300e-003**	**0.0000**	**2.7954**	**2.7954**	**8.7000e-004**	**0.0000**	**2.8171**

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	7.2000e-004	3.2000e-004	4.2000e-003	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3152	0.3152	2.0000e-005	0.0000	0.3158
Total	**7.2000e-004**	**3.2000e-004**	**4.2000e-003**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3152**	**0.3152**	**2.0000e-005**	**0.0000**	**0.3158**

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					1.6500e-003	0.0000	1.6500e-003	9.1000e-004	0.0000	9.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2000e-004	0.0115	0.0208	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.7954	2.7954	8.7000e-004	0.0000	2.8171
Total	**6.2000e-004**	**0.0115**	**0.0208**	**3.0000e-005**	**1.6500e-003**	**5.0000e-005**	**1.7000e-003**	**9.1000e-004**	**5.0000e-005**	**9.6000e-004**	**0.0000**	**2.7954**	**2.7954**	**8.7000e-004**	**0.0000**	**2.8171**

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	7.2000e-004	3.2000e-004	4.2000e-003	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.3152	0.3152	2.0000e-005	0.0000	0.3158
Total	**7.2000e-004**	**3.2000e-004**	**4.2000e-003**	**0.0000**	**2.2000e-004**	**0.0000**	**2.3000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.3152**	**0.3152**	**2.0000e-005**	**0.0000**	**0.3158**

3.4 Grading - 2018

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					0.2007	0.0000	0.2007	0.1082	0.0000	0.1082	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0423	0.4602	0.1763	3.4000e-004		0.0221	0.0221		0.0203	0.0203	0.0000	30.7009	30.7009	9.5600e-003	0.0000	30.9398
Total	**0.0423**	**0.4602**	**0.1763**	**3.4000e-004**	**0.2007**	**0.0221**	**0.2228**	**0.1082**	**0.0203**	**0.1285**	**0.0000**	**30.7009**	**30.7009**	**9.5600e-003**	**0.0000**	**30.9398**

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	5.3400e-003	0.2285	0.0401	2.6000e-004	9.7000e-004	2.6000e-004	1.2400e-003	2.7000e-004	2.5000e-004	5.2000e-004	0.0000	24.6060	24.6060	3.3700e-003	0.0000	24.6901
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-004	3.5000e-004	4.6700e-003	0.0000	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.3502	0.3502	2.0000e-005	0.0000	0.3508
Total	**6.1400e-003**	**0.2289**	**0.0447**	**2.6000e-004**	**1.2100e-003**	**2.7000e-004**	**1.4900e-003**	**3.4000e-004**	**2.6000e-004**	**5.9000e-004**	**0.0000**	**24.9562**	**24.9562**	**3.3900e-003**	**0.0000**	**25.0409**

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					0.0452	0.0000	0.0452	0.0244	0.0000	0.0244	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-003	0.0913	0.1820	3.4000e-004		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	30.7009	30.7009	9.5600e-003	0.0000	30.9398
Total	**5.5000e-003**	**0.0913**	**0.1820**	**3.4000e-004**	**0.0452**	**5.5000e-004**	**0.0457**	**0.0244**	**5.5000e-004**	**0.0249**	**0.0000**	**30.7009**	**30.7009**	**9.5600e-003**	**0.0000**	**30.9398**

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	5.3400e-003	0.2285	0.0401	2.6000e-004	9.7000e-004	2.6000e-004	1.2400e-003	2.7000e-004	2.5000e-004	5.2000e-004	0.0000	24.6060	24.6060	3.3700e-003	0.0000	24.6901
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-004	3.5000e-004	4.6700e-003	0.0000	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.3502	0.3502	2.0000e-005	0.0000	0.3508
Total	**6.1400e-003**	**0.2289**	**0.0447**	**2.6000e-004**	**1.2100e-003**	**2.7000e-004**	**1.4900e-003**	**3.4000e-004**	**2.6000e-004**	**5.9000e-004**	**0.0000**	**24.9562**	**24.9562**	**3.3900e-003**	**0.0000**	**25.0409**

3.5 Building Construction - 2018

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	0.0281	0.2456	0.1846	2.8000e-004		0.0158	0.0158		0.0148	0.0148	0.0000	24.9656	24.9656	6.1200e-003	0.0000	25.1185
Total	**0.0281**	**0.2456**	**0.1846**	**2.8000e-004**		**0.0158**	**0.0158**		**0.0148**	**0.0148**	**0.0000**	**24.9656**	**24.9656**	**6.1200e-003**	**0.0000**	**25.1185**

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	5.6200e-003	0.1760	0.0550	1.8000e-004	1.2300e-003	3.4000e-004	1.5800e-003	3.6000e-004	3.3000e-004	6.9000e-004	0.0000	17.0224	17.0224	2.2800e-003	0.0000	17.0793
Worker	0.0112	4.9300e-003	0.0649	5.0000e-005	3.4000e-003	8.0000e-005	3.4800e-003	9.2000e-004	7.0000e-005	9.9000e-004	0.0000	4.8710	4.8710	3.4000e-004	0.0000	4.8795
Total	**0.0168**	**0.1809**	**0.1199**	**2.3000e-004**	**4.6300e-003**	**4.2000e-004**	**5.0600e-003**	**1.2800e-003**	**4.0000e-004**	**1.6800e-003**	**0.0000**	**21.8933**	**21.8933**	**2.6200e-003**	**0.0000**	**21.9588**

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	5.6000e-003	0.1146	0.1877	2.8000e-004		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	24.9655	24.9655	6.1200e-003	0.0000	25.1184
Total	**5.6000e-003**	**0.1146**	**0.1877**	**2.8000e-004**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**	**0.0000**	**24.9655**	**24.9655**	**6.1200e-003**	**0.0000**	**25.1184**

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	5.6200e-003	0.1760	0.0550	1.8000e-004	1.2300e-003	3.4000e-004	1.5800e-003	3.6000e-004	3.3000e-004	6.9000e-004	0.0000	17.0224	17.0224	2.2800e-003	0.0000	17.0793
Worker	0.0112	4.9300e-003	0.0649	5.0000e-005	3.4000e-003	8.0000e-005	3.4800e-003	9.2000e-004	7.0000e-005	9.9000e-004	0.0000	4.8710	4.8710	3.4000e-004	0.0000	4.8795
Total	**0.0168**	**0.1809**	**0.1199**	**2.3000e-004**	**4.6300e-003**	**4.2000e-004**	**5.0600e-003**	**1.2800e-003**	**4.0000e-004**	**1.6800e-003**	**0.0000**	**21.8933**	**21.8933**	**2.6200e-003**	**0.0000**	**21.9588**

3.5 Building Construction - 2019

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	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8110**	**306.8110**	**0.0747**	**0.0000**	**308.6795**

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	0.0633	2.1263	0.6186	2.2100e-003	0.0153	3.6700e-003	0.0190	4.5100e-003	3.5100e-003	8.0200e-003	0.0000	211.7305	211.7305	0.0266	0.0000	212.3965
Worker	0.1240	0.0531	0.7122	6.6000e-004	0.0423	9.3000e-004	0.0432	0.0114	8.5000e-004	0.0123	0.0000	58.8115	58.8115	3.6800e-003	0.0000	58.9035
Total	**0.1873**	**2.1793**	**1.3308**	**2.8700e-003**	**0.0576**	**4.6000e-003**	**0.0622**	**0.0159**	**4.3600e-003**	**0.0203**	**0.0000**	**270.5420**	**270.5420**	**0.0303**	**0.0000**	**271.3000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0696	1.4240	2.3325	3.5100e-003		0.0110	0.0110		0.0110	0.0110	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792
Total	**0.0696**	**1.4240**	**2.3325**	**3.5100e-003**		**0.0110**	**0.0110**		**0.0110**	**0.0110**	**0.0000**	**306.8106**	**306.8106**	**0.0747**	**0.0000**	**308.6792**

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	0.0633	2.1263	0.6186	2.2100e-003	0.0153	3.6700e-003	0.0190	4.5100e-003	3.5100e-003	8.0200e-003	0.0000	211.7305	211.7305	0.0266	0.0000	212.3965
Worker	0.1240	0.0531	0.7122	6.6000e-004	0.0423	9.3000e-004	0.0432	0.0114	8.5000e-004	0.0123	0.0000	58.8115	58.8115	3.6800e-003	0.0000	58.9035
Total	**0.1873**	**2.1793**	**1.3308**	**2.8700e-003**	**0.0576**	**4.6000e-003**	**0.0622**	**0.0159**	**4.3600e-003**	**0.0203**	**0.0000**	**270.5420**	**270.5420**	**0.0303**	**0.0000**	**271.3000**

3.5 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	0.0244	0.2206	0.1938	3.1000e-004		0.0129	0.0129		0.0121	0.0121	0.0000	26.6352	26.6352	6.5000e-003	0.0000	26.7976
Total	**0.0244**	**0.2206**	**0.1938**	**3.1000e-004**		**0.0129**	**0.0129**		**0.0121**	**0.0121**	**0.0000**	**26.6352**	**26.6352**	**6.5000e-003**	**0.0000**	**26.7976**

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	4.9000e-003	0.1794	0.0501	1.9000e-004	1.3500e-003	2.0000e-004	1.5500e-003	4.0000e-004	1.9000e-004	5.9000e-004	0.0000	18.7188	18.7188	2.1300e-003	0.0000	18.7721
Worker	9.8500e-003	4.0700e-003	0.0556	6.0000e-005	3.7300e-003	8.0000e-005	3.8100e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	5.0268	5.0268	2.8000e-004	0.0000	5.0338

Total	**0.0148**	**0.1835**	**0.1057**	**2.5000e-004**	**5.0800e-003**	**2.8000e-004**	**5.3600e-003**	**1.4000e-003**	**2.6000e-004**	**1.6700e-003**	**0.0000**	**23.7455**	**23.7455**	**2.4100e-003**	**0.0000**	**23.8058**

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	6.1400e-003	0.1255	0.2056	3.1000e-004		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	26.6351	26.6351	6.5000e-003	0.0000	26.7976
Total	**6.1400e-003**	**0.1255**	**0.2056**	**3.1000e-004**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**26.6351**	**26.6351**	**6.5000e-003**	**0.0000**	**26.7976**

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	4.9000e-003	0.1794	0.0501	1.9000e-004	1.3500e-003	2.0000e-004	1.5500e-003	4.0000e-004	1.9000e-004	5.9000e-004	0.0000	18.7188	18.7188	2.1300e-003	0.0000	18.7721
Worker	9.8500e-003	4.0700e-003	0.0556	6.0000e-005	3.7300e-003	8.0000e-005	3.8100e-003	1.0000e-003	7.0000e-005	1.0800e-003	0.0000	5.0268	5.0268	2.8000e-004	0.0000	5.0338
Total	**0.0148**	**0.1835**	**0.1057**	**2.5000e-004**	**5.0800e-003**	**2.8000e-004**	**5.3600e-003**	**1.4000e-003**	**2.6000e-004**	**1.6700e-003**	**0.0000**	**23.7455**	**23.7455**	**2.4100e-003**	**0.0000**	**23.8058**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0700e-003	0.0332	0.0309	5.0000e-005		1.6500e-003	1.6500e-003		1.5200e-003	1.5200e-003	0.0000	4.4669	4.4669	1.4100e-003	0.0000	4.5023
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0700e-003**	**0.0332**	**0.0309**	**5.0000e-005**		**1.6500e-003**	**1.6500e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**4.4669**	**4.4669**	**1.4100e-003**	**0.0000**	**4.5023**

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	1.7000e-004	7.6300e-003	1.2500e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.8451	0.8451	1.1000e-004	0.0000	0.8479
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-004	4.0000e-005	5.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0472
Total	**2.7000e-004**	**7.6700e-003**	**1.8200e-003**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.8922**	**0.8922**	**1.1000e-004**	**0.0000**	**0.8950**

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	6.3000e-004	0.0219	0.0377	5.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	4.4669	4.4669	1.4100e-003	0.0000	4.5023
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3000e-004**	**0.0219**	**0.0377**	**5.0000e-005**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**4.4669**	**4.4669**	**1.4100e-003**	**0.0000**	**4.5023**

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	1.7000e-004	7.6300e-003	1.2500e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.8451	0.8451	1.1000e-004	0.0000	0.8479
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-004	4.0000e-005	5.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0471	0.0471	0.0000	0.0000	0.0472
Total	**2.7000e-004**	**7.6700e-003**	**1.8200e-003**	**1.0000e-005**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.8922**	**0.8922**	**1.1000e-004**	**0.0000**	**0.8950**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1093	0.1274	2.0000e-004		6.3200e-003	6.3200e-003		6.2700e-003	6.2700e-003	0.0000	17.6286	17.6286	3.0000e-003	0.0000	17.7036
Total	**2.3723**	**0.1093**	**0.1274**	**2.0000e-004**		**6.3200e-003**	**6.3200e-003**		**6.2700e-003**	**6.2700e-003**	**0.0000**	**17.6286**	**17.6286**	**3.0000e-003**	**0.0000**	**17.7036**

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	8.2600e-003	3.5300e-003	0.0474	4.0000e-005	2.8200e-003	6.0000e-005	2.8800e-003	7.6000e-004	6.0000e-005	8.2000e-004	0.0000	3.9162	3.9162	2.5000e-004	0.0000	3.9223
Total	**8.2600e-003**	**3.5300e-003**	**0.0474**	**4.0000e-005**	**2.8200e-003**	**6.0000e-005**	**2.8800e-003**	**7.6000e-004**	**6.0000e-005**	**8.2000e-004**	**0.0000**	**3.9162**	**3.9162**	**2.5000e-004**	**0.0000**	**3.9223**

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	2.3590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1600e-003	0.0869	0.1348	2.0000e-004		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	17.6285	17.6285	3.0000e-003	0.0000	17.7036
Total	**2.3631**	**0.0869**	**0.1348**	**2.0000e-004**		**1.8400e-003**	**1.8400e-003**		**1.8400e-003**	**1.8400e-003**	**0.0000**	**17.6285**	**17.6285**	**3.0000e-003**	**0.0000**	**17.7036**

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	8.2600e-003	3.5300e-003	0.0474	4.0000e-005	2.8200e-003	6.0000e-005	2.8800e-003	7.6000e-004	6.0000e-005	8.2000e-004	0.0000	3.9162	3.9162	2.5000e-004	0.0000	3.9223
Total	**8.2600e-003**	**3.5300e-003**	**0.0474**	**4.0000e-005**	**2.8200e-003**	**6.0000e-005**	**2.8800e-003**	**7.6000e-004**	**6.0000e-005**	**8.2000e-004**	**0.0000**	**3.9162**	**3.9162**	**2.5000e-004**	**0.0000**	**3.9223**

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	3.5249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1510	0.1898	3.0000e-004		8.1400e-003	8.1400e-003		8.0600e-003	8.0600e-003	0.0000	26.1297	26.1297	4.3700e-003	0.0000	26.2389
Total	**3.5432**	**0.1510**	**0.1898**	**3.0000e-004**		**8.1400e-003**	**8.1400e-003**		**8.0600e-003**	**8.0600e-003**	**0.0000**	**26.1297**	**26.1297**	**4.3700e-003**	**0.0000**	**26.2389**

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	0.0111	4.6000e-003	0.0628	6.0000e-005	4.2100e-003	9.0000e-005	4.3000e-003	1.1300e-003	8.0000e-005	1.2200e-003	0.0000	5.6759	5.6759	3.2000e-004	0.0000	5.6838
Total	**0.0111**	**4.6000e-003**	**0.0628**	**6.0000e-005**	**4.2100e-003**	**9.0000e-005**	**4.3000e-003**	**1.1300e-003**	**8.0000e-005**	**1.2200e-003**	**0.0000**	**5.6759**	**5.6759**	**3.2000e-004**	**0.0000**	**5.6838**

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	3.5249					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2100e-003	0.1299	0.2015	3.0000e-004		2.7500e-003	2.7500e-003		2.7500e-003	2.7500e-003	0.0000	26.1296	26.1296	4.3700e-003	0.0000	26.2389
Total	**3.5311**	**0.1299**	**0.2015**	**3.0000e-004**		**2.7500e-003**	**2.7500e-003**		**2.7500e-003**	**2.7500e-003**	**0.0000**	**26.1296**	**26.1296**	**4.3700e-003**	**0.0000**	**26.2389**

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	0.0111	4.6000e-003	0.0628	6.0000e-005	4.2100e-003	9.0000e-005	4.3000e-003	1.1300e-003	8.0000e-005	1.2200e-003	0.0000	5.6759	5.6759	3.2000e-004	0.0000	5.6838
Total	**0.0111**	**4.6000e-003**	**0.0628**	**6.0000e-005**	**4.2100e-003**	**9.0000e-005**	**4.3000e-003**	**1.1300e-003**	**8.0000e-005**	**1.2200e-003**	**0.0000**	**5.6759**	**5.6759**	**3.2000e-004**	**0.0000**	**5.6838**

3.8 Trenching - 2018

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	0.0245	0.2521	0.2473	3.6000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	33.2777	33.2777	0.0104	0.0000	33.5367
Total	**0.0245**	**0.2521**	**0.2473**	**3.6000e-004**		**0.0148**	**0.0148**		**0.0136**	**0.0136**	**0.0000**	**33.2777**	**33.2777**	**0.0104**	**0.0000**	**33.5367**

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	2.7000e-004	1.2000e-004	1.5800e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1185	0.1185	1.0000e-005	0.0000	0.1187
Total	**2.7000e-004**	**1.2000e-004**	**1.5800e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1185**	**0.1185**	**1.0000e-005**	**0.0000**	**0.1187**

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	5.8600e-003	0.1600	0.2759	3.6000e-004		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004	0.0000	33.2777	33.2777	0.0104	0.0000	33.5367
Total	**5.8600e-003**	**0.1600**	**0.2759**	**3.6000e-004**		**6.0000e-004**	**6.0000e-004**		**6.0000e-004**	**6.0000e-004**	**0.0000**	**33.2777**	**33.2777**	**0.0104**	**0.0000**	**33.5367**

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	2.7000e-004	1.2000e-004	1.5800e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1185	0.1185	1.0000e-005	0.0000	0.1187
Total	**2.7000e-004**	**1.2000e-004**	**1.5800e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1185**	**0.1185**	**1.0000e-005**	**0.0000**	**0.1187**

4300 Stevens Creek Blvd, San Jose, California

DPM Emissions and Modeling Emission Rates

Emissions Model Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2018	Construction	0.0933	DPM	186.6	0.05680	7.16E-03	40,481	**1.77E-07**
2019	Construction	0.1810	DPM	362.0	0.11020	1.39E-02	40,481	**3.43E-07**
2020	Construction	0.0214	DPM	42.8	0.01303	1.64E-03	40,481	**4.06E-08**
Total		***0.2957***		***591.4***	***0.1800***	***0.0227***		
		Operation Hours						
		hr/day =	9	(7am - 4pm)				
		days/yr =	365					
		hours/year =	3285					

4300 Stevens Creek Blvd, San Jose, California

PM2.5 Fugitive Dust Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2018	Construction	FUG	0.1297	259.4	0.07896	9.95E-03	40,481	**2.46E-07**
2019	Construction	FUG	0.0167	33.4	0.01017	1.28E-03	40,481	**3.16E-08**
2020	Construction	FUG	0.0025	5.1	0.00154	1.94E-04	40,481	**4.79E-09**
Total			***0.1489***	***297.9***	***0.0907***	***0.0114***		
		Operation Hours						
		hr/day =	9	(7am - 4pm)				
		days/yr =	365					
		hours/year =	3285					

4300 Stevens Creek Blvd, San Jose, California

Maximum Impacts at Construction MEI Location

	Maximum Concentrations					Maximum
	Exhaust	Fugitive	Cancer Risk		Hazard	Annual PM2.5
Emissions	PM10/DPM	PM2.5	(per million)		Index	Concentration
Year	($\mu g/m^3$)	($\mu g/m^3$)	Child	Adult	(-)	($\mu g/m^3$)
2018	0.0982	0.1659	17.5	0.3	0.020	0.26
2019	0.1903	0.0213	31.2	0.5	0.038	0.21
2020	0.0225	0.0032	0.6	0.1	0.005	0.03
Maximum	0.1903	0.1659	49.4	0.9	0.038	0.26

4300 Stevens Creek Blvd, San Jose, California

Maximum DPM Cancer Risk Calculations From Construction

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		
	Exposure				Age	Cancer	Modeled		Age	Cancer		
Exposure	Duration		DPM Conc (ug/m3)		Sensitivity	Risk	DPM Conc (ug/m3)		Sensitivity	Risk	Fugitive	Total
Year	(years)	Age	Year	Annual	Factor	(per million)	Year	Annual	Factor	(per million)	PM2.5	PM2.5
0	0.25	-0.25 - 0*	2018	0.0982	10	1.34	2018	0.0982	-	-		
1	1	0 - 1	2018	0.0982	10	16.13	2018	0.0982	1	0.28	0.1659	0.264
2	1	1 - 2	2019	0.1903	10	31.25	2019	0.1903	1	0.55	0.0213	0.212
3	1	2 - 3	2020	0.0225	3	0.64	2020	0.0225	1	0.06	0.0032	0.026
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**49.35**				**0.89**		

* Third trimester of pregnancy

Attachment 3: Stevens Creek Boulevard Emissions and Risk Calculations

4300 Stevens Creek Blvd, San Jose, CA
Stevens Creek Blvd
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2021

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)
EB-SCreek	Eastbound Stevens Creek Blvd	E	3	892	36	11.0	3.4	293	Variable
WB-SCreek	Westbound Stevens Creek Blvd	W	3	892	36	11.0	3.4	293	Variable

2021 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - EB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.48%	7	0.0142	9	7.72%	23	0.0112	17	7.07%	21	0.0110
2	1.87%	5	0.0139	10	4.53%	13	0.0142	18	5.88%	17	0.0102
3	2.13%	6	0.0137	11	3.98%	12	0.0142	19	5.29%	16	0.0098
4	2.07%	6	0.0144	12	8.04%	24	0.0114	20	0.63%	2	0.0137
5	1.44%	4	0.0141	13	7.48%	22	0.0112	21	1.98%	6	0.0141
6	1.98%	6	0.0145	14	7.48%	22	0.0112	22	2.59%	8	0.0142
7	3.65%	11	0.0144	15	6.83%	20	0.0109	23	1.61%	5	0.0140
8	6.59%	19	0.0107	16	6.10%	18	0.0104	24	0.58%	2	0.0139
								Total		293	

2021 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - WB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	2.48%	7	0.0142	9	7.72%	23	0.0112	17	7.07%	21	0.0110
2	1.87%	5	0.0139	10	4.53%	13	0.0142	18	5.88%	17	0.0102
3	2.13%	6	0.0137	11	3.98%	12	0.0142	19	5.29%	16	0.0098
4	2.07%	6	0.0144	12	8.04%	24	0.0114	20	0.63%	2	0.0137
5	1.44%	4	0.0141	13	7.48%	22	0.0112	21	1.98%	6	0.0141
6	1.98%	6	0.0145	14	7.48%	22	0.0112	22	2.59%	8	0.0142
7	3.65%	11	0.0144	15	6.83%	20	0.0109	23	1.61%	5	0.0140
8	6.59%	19	0.0107	16	6.10%	18	0.0104	24	0.58%	2	0.0139
								Total		293	

4300 Stevens Creek Blvd, San Jose, CA
Stevens Creek Blvd
PM2.5 & TOG Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB-SCreek	Eastbound Stevens Creek Blvd	E	3	892	36	11.0	1.3	13,930	Variable
WB-SCreek	Westbound Stevens Creek Blvd	W	3	892	36	11.0	1.3	13,930	Variable

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	152	0.0211	9	7.07%	985	0.0199	17	7.39%	1030	0.0197
2	0.37%	51	0.0220	10	4.27%	595	0.0204	18	8.29%	1155	0.0195
3	0.30%	42	0.0225	11	4.60%	641	0.0201	19	5.80%	808	0.0195
4	0.19%	26	0.0299	12	5.84%	814	0.0200	20	4.37%	608	0.0194
5	0.45%	63	0.0216	13	6.17%	860	0.0198	21	3.28%	458	0.0197
6	0.82%	114	0.0222	14	6.03%	840	0.0199	22	3.31%	461	0.0199
7	3.77%	525	0.0202	15	7.08%	986	0.0197	23	2.47%	344	0.0197
8	7.90%	1101	0.0195	16	7.23%	1007	0.0196	24	1.89%	264	0.0194
								Total		13,930	

2021 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	152	0.0211	9	7.07%	985	0.0199	17	7.39%	1030	0.0197
2	0.37%	51	0.0220	10	4.27%	595	0.0204	18	8.29%	1155	0.0195
3	0.30%	42	0.0225	11	4.60%	641	0.0201	19	5.80%	808	0.0195
4	0.19%	26	0.0299	12	5.84%	814	0.0200	20	4.37%	608	0.0194
5	0.45%	63	0.0216	13	6.17%	860	0.0198	21	3.28%	458	0.0197
6	0.82%	114	0.0222	14	6.03%	840	0.0199	22	3.31%	461	0.0199
7	3.77%	525	0.0202	15	7.08%	986	0.0197	23	2.47%	344	0.0197
8	7.90%	1101	0.0195	16	7.23%	1007	0.0196	24	1.89%	264	0.0194
								Total		13,930	

4300 Stevens Creek Blvd, San Jose, CA
Stevens Creek Blvd
Entrained PM2.5 Road Dust Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2021

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB-SCreek	Eastbound Stevens Creek Blvd	E	3	892	36	11.0	1.3	13,930	Variable
WB-SCreek	Westbound Stevens Creek Blvd	W	3	892	36	11.0	1.3	13,930	Variable

2021 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - EB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	152	0.0153	9	7.07%	985	0.0153	17	7.39%	1030	0.0153
2	0.37%	51	0.0153	10	4.27%	595	0.0153	18	8.29%	1155	0.0153
3	0.30%	42	0.0153	11	4.60%	641	0.0153	19	5.80%	808	0.0153
4	0.19%	26	0.0153	12	5.84%	814	0.0153	20	4.37%	608	0.0153
5	0.45%	63	0.0153	13	6.17%	860	0.0153	21	3.28%	458	0.0153
6	0.82%	114	0.0153	14	6.03%	840	0.0153	22	3.31%	461	0.0153
7	3.77%	525	0.0153	15	7.08%	986	0.0153	23	2.47%	344	0.0153
8	7.90%	1101	0.0153	16	7.23%	1007	0.0153	24	1.89%	264	0.0153
								Total		13,930	

2021 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - WB-SCreek

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.09%	152	0.0153	9	7.07%	985	0.0153	17	7.39%	1030	0.0153
2	0.37%	51	0.0153	10	4.27%	595	0.0153	18	8.29%	1155	0.0153
3	0.30%	42	0.0153	11	4.60%	641	0.0153	19	5.80%	808	0.0153
4	0.19%	26	0.0153	12	5.84%	814	0.0153	20	4.37%	608	0.0153
5	0.45%	63	0.0153	13	6.17%	860	0.0153	21	3.28%	458	0.0153
6	0.82%	114	0.0153	14	6.03%	840	0.0153	22	3.31%	461	0.0153
7	3.77%	525	0.0153	15	7.08%	986	0.0153	23	2.47%	344	0.0153
8	7.90%	1101	0.0153	16	7.23%	1007	0.0153	24	1.89%	264	0.0153
								Total		13,930	

4300 Stevens Creek Blvd, San Jose, CA
Stevens Creek Blvd Traffic Data and PM2.5 & TOG Emission Factors - 40 mph

Analysis Year = ***2021***

Vehicle Type	2021 Caltrans Number Vehicles (veh/day)	2021 Number Vehicles (veh/day)	2021 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors: Diesel Vehicles DPM (g/VMT)	All Vehicles: Total PM2.5 (g/VMT)	All Vehicles: Exhaust PM2.5 (g/VMT)	Gas Vehicles: Exhaust TOG (g/VMT)	Gas Vehicles: Running TOG (g/VMT)
LDA	19,506	19,506	1.10%	215	40	0.0080	0.0191	0.0014	0.0133	0.042
LDT	7,376	7,376	0.18%	13	40	0.0112	0.0191	0.0014	0.0206	0.090
MDT	652	652	10.15%	66	40	0.0133	0.0229	0.0022	0.0400	0.182
HDT	326	326	89.36%	291	40	0.0145	0.0716	0.0129	0.1062	0.097
Total	27,860	27,860	-	586	40	-	-		-	-
Mix Avg Emission Factor						**0.01189**	**0.01983**	**0.00154**	**0.01595**	**0.05832**
Increase From 2021		1.00								
Vehicles/Direction		13,930		293						
Avg Vehicles/Hour/Direction		**580**		**12**						

Traffic Data Year = ***2021***

City of Sunnyvale data		Total*	Truck by Axle			
	Total	Truck	2	3	4	5
Stevens Creek Blvd	27,860	978	652	109	109	109
			66.67%	11.11%	11.11%	11.11%
Percent of Total Vehicles		3.51%	2.34%	0.39%	0.39%	0.39%

* Truck percentage based on BAAQMD for trucks in Santa Clara Co. on non-state highways
2/3 of trucks assumed to be MDT and 1/3 assumed to be HDT

Traffic Increase per Year (%) = *1.00%*

4300 Stevens Creek Blvd, San Jose, CA
Stevens Creek Blvd Traffic Data and PM2.5 & TOG Emission Factors - 25 mph

Analysis Year = ***2021***

Vehicle Type	2021 Caltrans Number Vehicles (veh/day)	2021 Number Vehicles (veh/day)	2021 Percent Diesel	Number Diesel Vehicles (veh/day)	Vehicle Speed (mph)	Emission Factors: Diesel Vehicles DPM (g/VMT)	All Vehicles: Total PM2.5 (g/VMT)	All Vehicles: Exhaust PM2.5 (g/VMT)	Gas Vehicles: Exhaust TOG (g/VMT)	Gas Vehicles: Running TOG (g/VMT)
LDA	19,506	19,506	1.10%	215	25	0.0116	0.0202	0.0024	0.0237	0.042
LDT	7,376	7,376	0.18%	13	25	0.0163	0.0202	0.0025	0.0364	0.090
MDT	652	652	10.15%	66	25	0.0232	0.0282	0.0075	0.0742	0.182
HDT	326	326	89.36%	291	25	0.0184	0.0748	0.0161	0.1781	0.097
Total	27,860	27,860	-	586	25	-	-		-	-
Mix Avg Emission Factor						**0.01640**	**0.02103**	**0.00273**	**0.02839**	**0.05832**
Increase From 2021		1.00								
Vehicles/Direction		13,930		293						
Avg Vehicles/Hour/Direction		**580**		**12**						

Traffic Data Year = ***2021***

City of Sunnyvale data		Total*	Truck by Axle			
	Total	Truck	2	3	4	5
Stevens Creek Blvd	27,860	978	652	109	109	109
			66.67%	11.11%	11.11%	11.11%
Percent of Total Vehicles		3.51%	2.34%	0.39%	0.39%	0.39%

* Truck percentage based on BAAQMD for trucks in Santa Clara Co. on non-state highways
2/3 of trucks assumed to be MDT and 1/3 assumed to be HDT

Traffic Increase per Year (%) = *1.00%*

4300 Stevens Creek Blvd, San Jose, CA
Stevens Creek Blvd Traffic Data and Entrained PM2.5 Road Dust Emission Factors

$E_{2.5} = [k(sL)^{0.91} \times (W)^{1.02} \times (1-P/4N) \times 453.59$

where:

$E_{2.5}$ = $PM_{2.5}$ emission factor (g/VMT)

k = particle size multiplier (g/VMT) [$k_{PM2.5} = k_{PM10}$ x (0.0686/0.4572) = 1.0 x 0.15 = 0.15 g/VMT][a]

sL = roadway specific silt loading (g/m^2)

W = average weight of vehicles on road (Bay Area default = 2.4 tons)[a]

P = number of days with at least 0.01 inch of precipitation in the annual averaging period

N = number of days in the annual averaging period (default = 365)

Notes: [a] CARB 2014, Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust (Revised and updated, April 2014)

Road Type	Silt Loading (g/m^2)	Average Weight (tons)	County	No. Days ppt > 0.01"	$PM_{2.5}$ Emission Factor (g/VMT)
Major	0.032	2.4	Santa Clara	64	0.01528

SFBAAB[a]

Road Type	Silt Loading (g/m^2)
Collector	0.032
Freeway	0.02
Local	0.32
Major	0.032

SFBAAB[a]

County	>0.01 inch precipitation
Alameda	61
Contra Costa	60
Marin	66
Napa	68
San Francisco	67
San Mateo	60
Santa Clara	64
Solano	54
Sonoma	69

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Residential Receptors - 1st Floor (1.5 meter receptor heights)

Emissions Year	2021
Receptor Information	
Number of Receptors	32
Receptor Height =	1.5 meters above ground level (1st floor)
Receptor distances =	at residential unit locations
Meteorological Conditions	
BAAQMD San Jose Airport Met Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2009-2013	0.00167	0.1280	0.4704

Meteorological Data Years	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
2009-2013	0.2836	0.1236	0.16

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd Maximum Cancer Risks
On-Site Residential Receptors - 1st Floor (1.5 meter receptor heights)
30-Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

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

* 95th percentile breathing rates for 3rd trimester and infants, 80th percentile for children and adults

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2021	0.25	-0.25 - 0*	10	0.0017	0.1280	0.4704	0.023	0.010	0.002	0.03
1	2021	1	1	10	0.0017	0.1280	0.4704	0.27	0.120	0.026	0.42
2	2022	1	2	10	0.0017	0.1280	0.4704	0.27	0.120	0.026	0.42
3	2023	1	3	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
4	2024	1	4	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
5	2025	1	5	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
6	2026	1	6	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
7	2027	1	7	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
8	2028	1	8	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
9	2029	1	9	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
10	2030	1	10	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
11	2031	1	11	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
12	2032	1	12	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
13	2033	1	13	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
14	2034	1	14	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
15	2035	1	15	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
16	2036	1	16	3	0.0017	0.1280	0.4704	0.04	0.019	0.004	0.07
17	2037	1	17	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
18	2038	1	18	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
19	2039	1	19	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
20	2040	1	20	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
21	2041	1	21	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
22	2042	1	22	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
23	2043	1	23	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
24	2044	1	24	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
25	2045	1	25	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
26	2046	1	26	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
27	2047	1	27	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
28	2048	1	28	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
29	2049	1	29	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
30	2050	1	30	1	0.0017	0.1280	0.4704	0.00	0.002	0.000	0.007
Total Increased Cancer Risk			**Total**					1.24	0.544	0.118	**1.9**

* Third trimester of pregnancy

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Residential Receptors - 3rd Floor (8.5 meter receptor heights)

Emissions Year	2021
Receptor Information	
Number of Receptors	90
Receptor Height =	8.5 meters above ground level (3rd floor)
Receptor distances =	at residential unit locations
Meteorological Conditions	
BAAQMD San Jose Airport Met Data	2006-2010
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Meteorological Data Years	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
2009-2013	0.00094	0.0454	0.1667

Meteorological Data Years	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
2009-2013	0.1004	0.0437	0.0567

4300 Stevens Creek Blvd, San Jose, CA - Stevens Creek Blvd Maximum Cancer Risks
On-Site Residential Receptors - 3rd Floor (8.5 meter receptor heights)
30-Year Residential Exposure

Cancer Risk Calculation Method

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

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

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

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

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

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

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

* 95th percentile breathing rates for 3rd trimester and infants, 80th percentile for children and adults

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
					Annual TAC Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2021	0.25	-0.25 - 0*	10	0.0009	0.0454	0.1667	0.013	0.004	0.001	0.02
1	2021	1	1	10	0.0009	0.0454	0.1667	0.15	0.043	0.009	0.21
2	2022	1	2	10	0.0009	0.0454	0.1667	0.15	0.043	0.009	0.21
3	2023	1	3	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
4	2024	1	4	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
5	2025	1	5	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
6	2026	1	6	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
7	2027	1	7	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
8	2028	1	8	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
9	2029	1	9	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
10	2030	1	10	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
11	2031	1	11	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
12	2032	1	12	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
13	2033	1	13	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
14	2034	1	14	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
15	2035	1	15	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
16	2036	1	16	3	0.0009	0.0454	0.1667	0.02	0.007	0.001	0.03
17	2037	1	17	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
18	2038	1	18	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
19	2039	1	19	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
20	2040	1	20	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
21	2041	1	21	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
22	2042	1	22	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
23	2043	1	23	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
24	2044	1	24	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
25	2045	1	25	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
26	2046	1	26	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
27	2047	1	27	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
28	2048	1	28	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
29	2049	1	29	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
30	2050	1	30	1	0.0009	0.0454	0.1667	0.00	0.001	0.000	0.004
Total Increased Cancer Risk			**Total**					0.70	0.193	0.042	**0.9**

* Third trimester of pregnancy