3035 EL CAMINO REAL COMMUNITY RISK ASSESSMENT

Santa Clara, CA

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Introduction

The purpose of this report is to address air quality community risk impacts associated with the proposed mixed-use project located at 3035 El Camino Real in Santa Clara, California. The proposed project would demolish the existing one-story commercial building and associated parking lot and construct a mixed-use development including up to six live/work condominium units and up to 42 residential condominium units and private office space. There would be 62 garage parking spaces as 38 parking lot spaces.

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 toxic air contaminants (TACs) or by project construction affecting nearby sensitive receptors. The Bay Area Air Quality Management District (BAAQMD) recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin.

Toxic Air Contaminants

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

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

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty

diesel fueled vehicles.[1] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[2]

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The closest sensitive receptors to the project site are residences located adjacent to the site's northern boundary.

Significance Thresholds

The BAAQMD includes significance thresholds for exposure to TACs and fine particulate matter ($PM_{2.5}$) as part of its May 2017 CEQA Air Quality Guidelines. Though not necessarily a CEQA issue, the effect of existing TAC sources on future project receptors (residences) is addressed to comply with the Clean Air Plan key goal of reducing population TAC exposure and protecting public health in the Bay Area. The following are the significance criteria that are used to judge this project's impacts:

Single Source Impacts

If emissions of TACs or $PM_{2.5}$ exceed any of the thresholds of significance listed below, the proposed project would result in a significant impact and mitigation would be required:

- An excess cancer risk level of more than 10.0 in 1 million, or a non-cancer (chronic or acute) hazard index (HI) greater than 1.0.
- An incremental increase of more than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$.

Cumulative Source Impacts

A project would have a cumulatively considerable impact if the combined total of all sources within a 1,000-foot radius of the fence line of a source or from the location of a receptor, plus the contribution from the project, exceeds the following thresholds:

- An excess cancer risk levels of more than 100 in one million or a chronic non-cancer HI (from all local sources) greater than 10.0.

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

- An incremental increase of more than 0.8 μg/m^3 annual average $PM_{2.5}$.

Operational Community Risk Impacts

Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. No stationary sources of TACs, such as generators, are proposed as part of the project. The project would introduce new sensitive receptors to the area in the form of future residences.

A review of the area indicates that El Camino Real (S.R.82) and two stationary sources permitted by BAAQMD are within 1,000 feet of the site and can adversely affect new residences. Since initial screening computations indicate increased cancer risks at the project dwelling units from S.R.82 would exceed significance thresholds, refined modeling was conducted. Permitted stationary sources of TACs were identified using BAAQMD's *Stationary Source Risk & Hazard Analysis Tool.*

<u>El Camino Real (S.R.82) TAC Impacts</u>

Since screening computations indicate increases in excess cancer risk at the project dwelling units closest to El Camino Real 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 El Camino Real. 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. A review of the traffic information reported by the California Department of Transportation (Caltrans) indicates that El Camino Real traffic includes 39,000 annual average vehicles per day[3] that are about 2.4 percent trucks, of which 0.4 percent are considered diesel heavy duty trucks.[4]

Traffic Emissions Modeling

This analysis involved the development of DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on El Camino Real using the CARB EMFAC2014 emission factor model and the traffic mix developed from Caltrans data. 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 2022 or later. In order to estimate TAC and $PM_{2.5}$ emissions over the 30-year exposure period (2022-2051) used for calculating increased cancer risks to new residents from traffic on El Camino Real, the EMFAC2014 model was used to develop vehicle emission factors for the year 2022. Year 2022 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

[3] California Department of Transportation. 2017. *2016 Traffic Volumes on California State Highways*
[4] California Department of Transportation. 2017. *2016 Annual Average Daily Truck Traffic on the California State Highway System*

particular diesel truck emissions will decrease in the future. Default EMFAC2014 vehicle model fleet age distributions for Santa Clara County were assumed. Average daily traffic volumes truck percentages were based on Caltrans data for El Camino Real in 2016. Traffic volumes were assumed to increase 1 percent per year. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,[5] which were then applied to the average daily traffic volumes to obtain estimated hourly traffic volumes and emissions for El Camino Real. An average travel speed of 35 mph was used for all hours except two hours in the morning and evening peak periods. Average travel speeds during those hours were assumed to be 25 mph between 7 a.m. and 9 a.m. and between 4 p.m. and 6 p.m.

Emissions of total organic gases (TOG) were also calculated for 2022 using the EMFAC2014 model. These TOG emissions were then used in modeling the organic TACs (i.e., TACs associated with motor vehicle exhaust and evaporative 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 El Camino Real were modeled using the same basic approach that was used for assessing TAC emissions. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in these emissions. The 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.[6]

Dispersion Modeling

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. East- and west-bound traffic on El Camino Real within about 1,000 feet of the project site was evaluated with the model. A five-year data set (2006-2010) of hourly meteorological data from the San José Airport prepared by the BAAQMD for use with the AERMOD model was used. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations.

The modeling used receptors spaced every 6 meters (20 feet) in the proposed new residential areas. A receptor height of 4.5 meters (15 feet) was used to represent the breathing height of residents on the second-floor level, respectively. Figure 1 shows the project site area, roadway segments modeled and residential receptor locations used in the modeling.

[5] 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.

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

The maximum modeled TAC and $PM_{2.5}$ concentrations from El Camino Real occurred at second-floor receptors in the central southern portion of the project residential area closest to El Camino Real. TAC and $PM_{2.5}$ concentrations from El Camino Real traffic at the project site will decrease with distance from the roadway and with increasing height (floor levels).

Computed Cancer and Non-Cancer Health Impacts

The maximum increased lifetime cancer risk and annual $PM_{2.5}$ concentrations for new residents at the project site are shown in Table 1 and were computed using modeled TAC and $PM_{2.5}$ concentrations and the BAAQMD recommended methods and exposure parameters described in *Attachment 1*. The location of the maximally exposed individual (MEI) where the maximum TAC and $PM_{2.5}$ impacts occurred is shown in Figure 1.

The maximum cancer risks and non-cancer health impacts (hazard index) do not exceed their respective BAAQMD single-source significance thresholds. The maximum $PM_{2.5}$ concentration does not exceed the 0.3 $\mu g/m^3$ single-source significance threshold; however, since the concentration is equal to the threshold, in this analysis, it is considered a *potentially significant impact*. *Implementation of Mitigation Measure AQ-1 would reduce this impact to a level of less-than-significant.*

Table 1. Maximum Health Risk Impacts from El Camino Real Traffic

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Chronic Hazard Index
El Camino Real			
2nd Floor Maximum Impact	2.1	0.32*	<0.01
BAAQMD Thresholds	*10.0*	*0.3*	*1.0*

Note: **Bold** denotes levels above single-source thresholds.

* Considered to equal, and not exceeding the single-source threshold of greater than 0.3 $\mu g/m^3$.

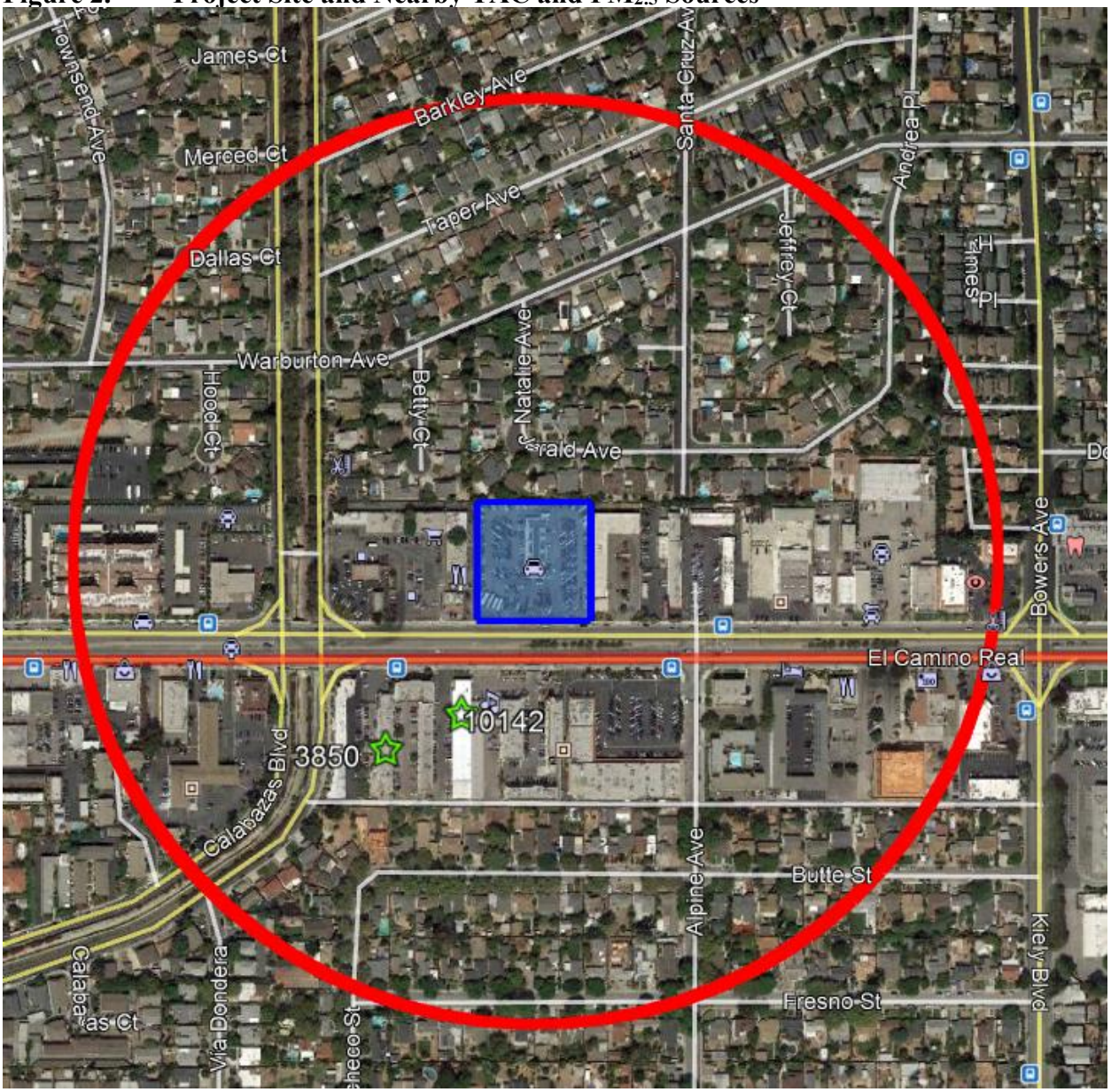
The modeling results and health risk calculations for the receptor with the maximum cancer risk from El Camino Real traffic are also provided in *Attachment 2*.

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

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 impacts. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. They provided updated risk levels, emissions and adjustments to account for new OEHHA guidance. The adjusted risk values were then adjusted with the appropriate distance multiplier values provided by BAAQMD or the emissions information was used in refined modeling. Figure 2 shows the stationary sources affecting the project site.

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



Plants #10142 and #3850, which are auto body coating uses, were the only stationary sources identified near the project site. Screening provided by BAAQMD were used and adjusted for distance based on BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engine*s. The maximum increased lifetime cancer risk and non-cancer hazards are shown in Table 2. Note that auto body coating uses are not a source of cancer risk or $PM_{2.5}$ concentrations. None of these stationary sources posed significant impacts upon the project site.

Cumulative Community Risk at Project Site

Community risk impacts from combined sources upon the project are reported in Table 2. As shown in Table 2, single and combined TAC sources within 1,000 feet of the project site would be below the BAAQMD cumulative risk thresholds.

Table 2. Impacts from Combined TAC Sources at Project Site

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
El Camino Real (S.R.82)	2.1	0.32*	<0.01
Plant #10142 (auto body coating)	NA	NA	<0.01
Plant #3850 (auto body coating)	NA	NA	<0.01
Combined Sources	2.1	0.32	<0.03
BAAQMD Threshold – Any Single Source	*10.0*	*0.3*	*1.0*
BAAQMD Threshold - Combined Sources	*100*	*0.8*	*10.0*

* Considered to equal, and not exceeding the single-source threshold of greater than 0.3 $\mu g/m^3$.

Mitigation Measure AQ-1: **Include high-efficiency particulate filtration systems in residential ventilation systems.**

Exposure to maximum annual $PM_{2.5}$ concentrations from El Camino Real are potentially significant for new project receptors adjacent to El Camino Real. Annual $PM_{2.5}$ concentrations are based on the exposure to $PM_{2.5}$ resulting from emissions attributable to truck and auto exhaust, the wearing of brakes and tires and re-entrainment of roadway dust from vehicles traveling over pavement.

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

1. Install air filtration in the dwelling units immediately adjacent to El Camino Real. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors (i.e., residents), this ventilation system, whether mechanical or passive, all fresh air circulated into the dwelling units shall be filtered, as described above.

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

3. Ensure that the use agreement and other property documents: (1) require cleaning, maintenance, and monitoring of the affected buildings for air flow leaks, (2) include

assurance that new owners or tenants are provided information on the ventilation system, and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.

Significance After Mitigation Measure AQ-1

A properly installed and operated ventilation system with MERV13 filters should achieve reductions of 80 percent. $PM_{2.5}$ exposures for MERV13 filtration cases were calculated assuming a combination of outdoor and indoor exposure. For use of MERV13 filtration systems, without the additional use of sealed, inoperable widows and no balconies, three hours of outdoor exposure to ambient $PM_{2.5}$ concentrations and 21 hours of indoor exposure to filtered air was assumed. In this case, the effective control efficiency using a MERV13 filtration system is about 70 percent for $PM_{2.5}$ exposure. This would significantly reduce the maximum annual $PM_{2.5}$ concentration to below the 0.3 $\mu g/m^3$ threshold.

Project Construction Activity

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Construction exhaust emissions may pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and $PM_{2.5}$.[7] The closest sensitive receptors to the project site are residences located adjacent to the site's northern boundary. Dispersion modeling was conducted to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction activity is anticipated to include demolition, site preparation, grading, trenching, building construction, paving, and architectural coating. Construction period emissions were modeled using the California Emissions Estimator Model, Version 2016.3.2 (CalEEMod). A build-out construction schedule including equipment usage assumptions was developed based on information provided by the project applicant. The proposed project land uses were input into CalEEMod, which included 48 dwelling units entered as "Apartments Low Rise", 5,006 square feet (sf) entered as "General Office Building", 3,680 sf entered as "Parking Lot", and 15,317 sf entered as "Enclosed Parking Structure". In addition, 5,000 sf of building demolition, 174 one-way trips during pavement demolition, 30 one-way cement truck trips during building construction, and 4 one-way asphalt truck trips during paving were entered into the model.

Construction Emissions

The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages of 0.02773 tons (56 pounds). The on-road emissions are a

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

result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.01617 tons (32 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) that would be present in the vicinity of the project site during construction activities. 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 a.m. to 4 p.m., when the majority of construction activity would occur. Figure 3 shows the project site and nearby sensitive receptor locations where health impacts were evaluated.

The modeling used a five-year data set (2006-2010) of hourly meteorological data from the San Jose Airport prepared by the BAAQMD for use with the AERMOD model was used. Annual DPM and $PM_{2.5}$ concentrations from construction activities during 2020 – 2021 were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. A receptor height of 1.5 meters (4.9 feet) was used to represent the breathing heights of residents in nearby single-family homes.

Predicted Cancer Risk and Hazards

Figure 3 shows the locations where the maximum-modeled DPM and $PM_{2.5}$ concentrations occurred. The maximum concentrations occurred at a residence adjacent to the northern project site boundary. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risk at the location of the maximally exposed individual (MEI) was calculated using BAAQMD recommended methods. The cancer risk calculations are based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD-recommended exposure parameters were used for the cancer risk calculations, as described in *Attachment 1*. Infant and adult exposures were assumed to occur at all residences through the entire construction period.

Results of this assessment indicate that the maximum increased residential cancer risks would be 18.7 in one million for an infant exposure and 0.3 in one million for an adult exposure. The maximum residential excess cancer risk would be above the significance threshold of 10.0 in one

million. *Implementation of Mitigation Measures AQ-2 and AQ-3 would reduce this impact to a level of less than significant.*

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 0.16 $\mu g/m^3$. This maximum annual $PM_{2.5}$ concentration would not exceed the BAAQMD significance threshold of greater than 0.3 $\mu g/m^3$.

Non-Cancer Hazards

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was 0.09 $\mu g/m^3$. The maximum computed HI based on this DPM concentration is 0.02, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0.

The project would have a *significant* impact with respect to community risk caused by project construction activities, since cancer risk is above the single-source thresholds of 10.0 per million for cancer risk. *Attachment 3* includes the construction emission calculations and source information used in the construction modeling and the cancer risk calculations.

Cumulative Impact on Construction MEI

The cumulative impacts of TAC emissions from construction of the project and traffic on nearby roadways on the construction MEI have been summarized in Table 3. As shown in Table 3, the sum of impacts from combined sources at the construction MEI would be less than significant.

Table 3. Impacts from Combined Sources at Construction MEI

Source	Maximum Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Unmitigated Project Construction	**18.7 (infant)**	0.16	0.02
Mitigated Construction	3.1 (infant)	0.03	<0.01
El Camino Real (S.R.82)	<0.9	<0.14	<0.01
Plant #10142 (auto body coating)	NA	NA	<0.01
Plant #3850 (auto body coating)	NA	NA	<0.01
Combined Sources – Unmitigated Construction Mitigated Construction	<19.6 <4.0	<0.3 <0.17	<0.05 <0.04
BAAQMD Threshold – Combined Sources	*100*	*0.8*	*10.0*

Figure 3. Project Construction Site and Locations of Off-Site Sensitive Receptors and TAC Impacts

Mitigation Measure AQ-2: **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.

Mitigation Measure AQ-3: **Selection of equipment during construction to minimize emissions. Such equipment selection would include the following:**

The project shall develop a plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 47 percent reduction in DPM exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:

- All mobile diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 3 engines or equivalent.

- All portable diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 3 engines and CARB-certified Level 3 Diesel Particulate Filters[8] 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 includes U.S. EPA particulate matter emissions standards for Tier 2 engines and CARB-certified Level 3 Diesel Particulate Filters or alternatively-fueled equipment (i.e., non-diesel) could 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-2* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure AQ-3* would further reduce on-site diesel exhaust emissions by at least 84 percent when combined with *Mitigation Measure AQ-2*. With mitigation, the computed maximum increased lifetime residential cancer risk from construction, assuming infant exposure, would be 3.1 in one million or less. The cancer risk would be below the BAAQMD threshold of 10 in one million for cancer risk. *After implementation of these recommended measures, the project would have a less-than-significant impact with respect to community risk caused by construction activities.*

Supporting Documentation

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

Attachment 2 includes the modeling results and health risk calculations for the receptor with the maximum cancer risk from El Camino Real traffic.

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

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

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.[9] 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.[10] 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.[11] 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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[9] 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.

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

[11] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 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: El Camino Real Emissions and Risk Calculations

3035 El Camino Real, Santa Clara, CA
El Camino Real (SR-82)
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2022

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	Diesel ADT	Average Speed (mph)
EB-El Camino	Eastbound El Camino Real	E	3	736	56	17.0	3.4	298	variable
WB-ElCamino	Westbound El Camino Real	W	3	736	56	17.0	3.4	298	variable

2022 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - EB-El Camino

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.87%	6	0.0144	9	8.43%	25	0.0128	17	7.78%	23	0.0121
2	1.69%	5	0.0147	10	3.00%	9	0.0141	18	7.62%	23	0.0125
3	2.08%	6	0.0148	11	2.71%	8	0.0141	19	6.97%	21	0.0090
4	1.20%	4	0.0141	12	8.47%	25	0.0099	20	0.56%	2	0.0135
5	1.05%	3	0.0145	13	8.15%	24	0.0096	21	1.37%	4	0.0142
6	1.06%	3	0.0140	14	8.16%	24	0.0097	22	1.64%	5	0.0141
7	2.04%	6	0.0138	15	7.65%	23	0.0093	23	1.26%	4	0.0142
8	7.46%	22	0.0119	16	7.30%	22	0.0091	24	0.47%	1	0.0139
								Total		298	

2022 Hourly Diesel Traffic Volumes Per Direction and DPM Emissions - WB-ElCamino

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.87%	6	0.0144	9	8.43%	25	0.0128	17	7.78%	23	0.0121
2	1.69%	5	0.0147	10	3.00%	9	0.0141	18	7.62%	23	0.0125
3	2.08%	6	0.0148	11	2.71%	8	0.0141	19	6.97%	21	0.0090
4	1.20%	4	0.0141	12	8.47%	25	0.0099	20	0.56%	2	0.0135
5	1.05%	3	0.0145	13	8.15%	24	0.0096	21	1.37%	4	0.0142
6	1.06%	3	0.0140	14	8.16%	24	0.0097	22	1.64%	5	0.0141
7	2.04%	6	0.0138	15	7.65%	23	0.0093	23	1.26%	4	0.0142
8	7.46%	22	0.0119	16	7.30%	22	0.0091	24	0.47%	1	0.0139
								Total		298	

3035 El Camino Real, Santa Clara, CA
El Camino Real (SR-82)
PM2.5 & TOG Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB-El Camino	Eastbound El Camino Real	E	3	736	56	17.0	1.3	20,670	variable
WB-ElCamino	Westbound El Camino Real	W	3	736	56	17.0	1.3	20,670	variable

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - EB-El Camino

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	222	0.0201	9	7.07%	1461	0.0206	17	7.40%	1531	0.0205
2	0.35%	73	0.0205	10	4.24%	876	0.0199	18	8.32%	1721	0.0204
3	0.29%	60	0.0209	11	4.59%	948	0.0197	19	5.83%	1204	0.0195
4	0.17%	34	0.0238	12	5.83%	1205	0.0197	20	4.39%	907	0.0195
5	0.44%	91	0.0203	13	6.17%	1276	0.0196	21	3.29%	680	0.0196
6	0.80%	165	0.0205	14	6.03%	1247	0.0196	22	3.31%	683	0.0197
7	3.75%	775	0.0198	15	7.09%	1466	0.0196	23	2.48%	512	0.0196
8	7.93%	1640	0.0204	16	7.25%	1499	0.0195	24	1.90%	393	0.0195
								Total		20,670	

2022 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - WB-ElCamino

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	222	0.0201	9	7.07%	1461	0.0206	17	7.40%	1531	0.0205
2	0.35%	73	0.0205	10	4.24%	876	0.0199	18	8.32%	1721	0.0204
3	0.29%	60	0.0209	11	4.59%	948	0.0197	19	5.83%	1204	0.0195
4	0.17%	34	0.0238	12	5.83%	1205	0.0197	20	4.39%	907	0.0195
5	0.44%	91	0.0203	13	6.17%	1276	0.0196	21	3.29%	680	0.0196
6	0.80%	165	0.0205	14	6.03%	1247	0.0196	22	3.31%	683	0.0197
7	3.75%	775	0.0198	15	7.09%	1466	0.0196	23	2.48%	512	0.0196
8	7.93%	1640	0.0204	16	7.25%	1499	0.0195	24	1.90%	393	0.0195
								Total		20,670	

3035 El Camino Real, Santa Clara, CA
El Camino Real (SR-82)
Entrained PM2.5 Road Dust Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2022

Group Link	Description	Direction	No. Lanes	Link Length (m)	Link Width (ft)	Link Width (m)	Release Height (m)	ADT	Average Speed (mph)
EB-El Camino	Eastbound El Camino Real	E	3	736	56	17.0	1.3	20,670	variable
WB-ElCamino	Westbound El Camino Real	W	3	736	56	17.0	1.3	20,670	variable

2022 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - EB-El Camino

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	222	0.0153	9	7.07%	1461	0.0153	17	7.40%	1531	0.0153
2	0.35%	73	0.0153	10	4.24%	876	0.0153	18	8.32%	1721	0.0153
3	0.29%	60	0.0153	11	4.59%	948	0.0153	19	5.83%	1204	0.0153
4	0.17%	34	0.0153	12	5.83%	1205	0.0153	20	4.39%	907	0.0153
5	0.44%	91	0.0153	13	6.17%	1276	0.0153	21	3.29%	680	0.0153
6	0.80%	165	0.0153	14	6.03%	1247	0.0153	22	3.31%	683	0.0153
7	3.75%	775	0.0153	15	7.09%	1466	0.0153	23	2.48%	512	0.0153
8	7.93%	1640	0.0153	16	7.25%	1499	0.0153	24	1.90%	393	0.0153
								Total		20,670	

2022 Hourly Traffic Volumes Per Direction and Road Dust PM2.5 Emissions - WB-ElCamino

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.07%	222	0.0153	9	7.07%	1461	0.0153	17	7.40%	1531	0.0153
2	0.35%	73	0.0153	10	4.24%	876	0.0153	18	8.32%	1721	0.0153
3	0.29%	60	0.0153	11	4.59%	948	0.0153	19	5.83%	1204	0.0153
4	0.17%	34	0.0153	12	5.83%	1205	0.0153	20	4.39%	907	0.0153
5	0.44%	91	0.0153	13	6.17%	1276	0.0153	21	3.29%	680	0.0153
6	0.80%	165	0.0153	14	6.03%	1247	0.0153	22	3.31%	683	0.0153
7	3.75%	775	0.0153	15	7.09%	1466	0.0153	23	2.48%	512	0.0153
8	7.93%	1640	0.0153	16	7.25%	1499	0.0153	24	1.90%	393	0.0153
								Total		20,670	

3035 El Camino Real, Santa Clara, CA
El Camino Real (SR-82) Traffic Data and PM2.5 & TOG Emission Factors - 35 mph

Analysis Year = ***2022***

Vehicle Type	2016 Caltrans Number Vehicles (veh/day)	2022 Number Vehicles (veh/day)	2022 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	27,624	29,281	1.14%	334	35	0.0077	0.0193	0.0016	0.0139	0.041
LDT	10,436	11,062	0.18%	20	35	0.0112	0.0193	0.0016	0.0215	0.086
MDT	774	820	10.36%	85	35	0.0150	0.0237	0.0030	0.0391	0.179
HDT	166	176	89.39%	158	35	0.0140	0.0710	0.0128	0.1172	0.090
Total	39,000	41,340	-	597	35	-	-		-	-
Mix Avg Emission Factor						**0.01050**	**0.01963**	**0.00165**	**0.01650**	**0.05577**
Increase From 2016		1.06								
Vehicles/Direction		20,670		298						
Avg Vehicles/Hour/Direction		**861**		**12**						

Traffic Data Year = ***2016***

CalTrans AADT & Truck AADT		Total	Truck by Axle			
	Total	Truck	2	3	4	5
Rte 82, B Santa Clara, Lawrence Expre	39,000	940	774	75	8	83
			82.30%	8.00%	0.85%	8.85%
Percent of Total Vehicles		2.41%	1.98%	0.19%	0.02%	0.21%

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

3035 El Camino Real, Santa Clara, CA
El Camino Real (SR-82) Traffic Data and PM2.5 & TOG Emission Factors - 25 mph

Analysis Year = ***2022***

Vehicle Type	2016 Caltrans Number Vehicles (veh/day)	2022 Number Vehicles (veh/day)	2022 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	27,624	29,281	1.14%	334	25	0.0102	0.0202	0.0024	0.0216	0.041
LDT	10,436	11,062	0.18%	20	25	0.0149	0.0202	0.0024	0.0331	0.086
MDT	774	820	10.36%	85	25	0.0217	0.0278	0.0072	0.0636	0.179
HDT	166	176	89.39%	158	25	0.0164	0.0726	0.0144	0.1512	0.090
Total	39,000	41,340	-	597	25	-	-	-	-	-
Mix Avg Emission Factor						**0.01361**	**0.02056**	**0.00257**	**0.02555**	**0.05577**
Increase From 2016		1.06								
Vehicles/Direction		20,670		298						
Avg Vehicles/Hour/Direction		**861**		**12**						

Traffic Data Year = ***2016***

CalTrans AADT & Truck AADT		Total	Truck by Axle			
	Total	Truck	2	3	4	5
Rte 82, B Santa Clara, Lawrence Expre	39,000	940	774	75	8	83
Rte 82, B Mathilda Ave			82.30%	8.00%	0.85%	8.85%
Percent of Total Vehicles		2.41%	1.98%	0.19%	0.02%	0.21%

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

3035 El Camino Real, Santa Clara, CA
El Camino Real (SR-82) 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

3035 El Camino Real, Santa Clara, CA - El Camino Real Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site 2nd Floor Residential Receptors (4.5 meter receptor heights)

Emissions Year	2022
Receptor Information	
Number of Receptors	88
Receptor Height =	4.5 meters above ground level
Receptor distances =	6 meter spacing in project residential areas
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 ($\mu g/m^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2006-2010	0.00166	0.1645	0.5099

Meteorological Data Years	PM2.5 Concentrations ($\mu g/m^3$)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
2006-2010	0.3182	0.1374	0.1808

3035 El Camino Real, Santa Clara, CA - El Camino Real Traffic -Maximum Cancer Risks
On-Site 2nd Floor Residential Receptors (4.5 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

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information							
					Annual TAC Conc (ug/m3)			Cancer Risk (per million)			
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2022	0.25	-0.25 - 0*	10	0.0017	0.1645	0.5099	0.023	0.013	0.002	0.04
1	2022	1	1	10	0.0017	0.1645	0.5099	0.27	0.154	0.028	0.46
2	2023	1	2	10	0.0017	0.1645	0.5099	0.27	0.154	0.028	0.46
3	2024	1	3	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
4	2025	1	4	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
5	2026	1	5	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
6	2027	1	6	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
7	2028	1	7	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
8	2029	1	8	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
9	2030	1	9	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
10	2031	1	10	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
11	2032	1	11	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
12	2033	1	12	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
13	2034	1	13	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
14	2035	1	14	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
15	2036	1	15	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
16	2037	1	16	3	0.0017	0.1645	0.5099	0.04	0.024	0.004	0.07
17	2038	1	17	1	0.0017	0.1645	0.5099	0.00	0.0027	0.000	0.008
18	2039	1	18	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
19	2040	1	19	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
20	2041	1	20	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
21	2042	1	21	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
22	2043	1	22	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
23	2044	1	23	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
24	2045	1	24	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
25	2046	1	25	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
26	2047	1	26	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
27	2048	1	27	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
28	2049	1	28	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
29	2050	1	29	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
30	2051	1	30	1	0.0017	0.1645	0.5099	0.00	0.003	0.000	0.008
Total Increased Cancer Risk			**Total**					1.24	0.699	0.128	**2.1**

* Third trimester of pregnancy

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**6/26/2018**
Contact Name	Casey Zaglin
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x23
Email	czaglin@illingworthrodkin.com
Project Name	3035 El Camino Real
Address	3035 El Camino Real
City	Santa Clara
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Mixed-Use
Project Size (# of units or building square feet)	48 DU, 5000sf office/retail
Comments:	

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

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

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

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

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

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

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

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

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

Submit forms, maps, and questions to Areana Flores at 415-749-4616, or aflores@baaqmd.gov

Table B: Google Earth data

PROJECTSITE

Distance from Receptor (feet) or MEI[1]	Facility Name	Address	Plant No.	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
150	F&S Auto Body Ltd Co	3100 EL CAMINO REAL, SUITES I&J	10142	0	0.000418	0	2	Auto Body Coating		Updated to include OEHHA factor	0.58	0.00	0.0002	0.00
280	El Camino Body Shop Inc	3160 EL CAMINO REAL	3850	0	0.00311	0	2	Auto Body Coating		Updated to include OEHHA factor	0.28	0.00	0.0009	0.00

Construction MEI

Distance from Receptor (feet) or MEI[1]	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
470	0.14	0.00	0.0001	0.00
600	0.09	0.00	0.0003	0.00

Footnotes:

1. Maximally exposed individual
2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
7. The date that the HRSA was completed.
8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period,
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

Attachment 3: Construction Emissions, Health Risk Calculations, and CalEEMod Output

3035 El Camino Real, Santa Clara, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

Emissions Model Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2020	Construction	0.0229	DPM	45.8	0.01394	1.76E-03	7,585	**2.32E-07**
2021	Construction	0.0048	DPM	9.7	0.00294	3.71E-04	7,585	**4.88E-08**
Total		***0.0277***		***55.5***	***0.0169***	***0.0021***		

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2020	Construction	FUG	0.0158	31.6	0.00962	1.21E-03	7,585	**1.60E-07**
2021	Construction	FUG	0.00037	0.7	0.00023	2.84E-05	7,585	**3.74E-09**
Total			***0.0162***	***32.3***	***0.0098***	***0.0012***		

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Emissions Model Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2020	Construction	0.0029	DPM	5.8	0.00176	2.22E-04	7,585	**2.92E-08**
2021	Construction	0.0017	DPM	3.4	0.00104	1.30E-04	7,585	**1.72E-08**
Total		***0.0046***		***9.2***	***0.0028***	***0.0004***		

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2020	Construction	FUG	0.00424	8.5	0.00258	3.25E-04	7,585	**4.29E-08**
2021	Construction	FUG	0.00037	0.7	0.00023	2.84E-05	7,585	**3.74E-09**
Total			***0.0046***	***9.2***	***0.0028***	***0.0004***		

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

3035 El Camino Real, Santa Clara, CA - Without Mitigation
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	Maximum	
				DPM Conc (ug/m3)	Age	Cancer	Modeled	DPM Conc (ug/m3)	Age	Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2020	0.0939	10	15.42	2020	0.0939	1	0.27	0.0692	0.163
2	1	1 - 2	2021	0.0198	10	3.24	2021	0.0198	1	0.06	0.0016	0.021
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
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						**18.66**				**0.33**		

* Third trimester of pregnancy

3035 El Camino Real, Santa Clara, CA - With Mitigation
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	Maximum	
				DPM Conc (ug/m3)	Age	Cancer	Modeled		Age	Cancer		
Exposure	Exposure Duration				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*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2020	0.0118	10	1.94	2020	0.0118	1	0.03	0.0186	0.028
2	1	1 - 2	2021	0.0070	10	1.14	2021	0.0070	1	0.02	0.0016	0.004
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
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						**3.08**				**0.05**		

* Third trimester of pregnancy

3035 El Camino Real, Santa Clara - Santa Clara County, Annual

3035 El Camino Real, Santa Clara

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	5.00	1000sqft	0.11	5,006.00	0
Enclosed Parking Structure	15.32	1000sqft	0.35	15,317.00	0
Parking Lot	3.68	1000sqft	0.08	3,680.00	0
Apartments Low Rise	48.00	Dwelling Unit	1.89	40,614.00	137

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate = 290

Land Use - based on provided construciton information

Construction Phase - Applicant provided schedule, added trenching

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - added this phase

Trips and VMT - 1 Mile Trips, 78,000sf pavement = 722cy = 867tons = 174 one-way pavement demo, 174+23 existing = 197 demo hauling, 30 one way cemcent trips building constr, 10cy asphalt paving = 12tons = 2 round trip, 4 one way trips paving asphalt,

Demolition - Applicant provided building Demo 5,000sf

Grading -

Woodstoves - No Wood, added to gas

Water And Wastewater - 100% Aerobic

Construction Off-road Equipment Mitigation - BMPs, Tier 3 Mobile Tier 3 DPF 3 Portable Mitigation

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	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	174.00
tblConstructionPhase	NumDays	220.00	174.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	6.00	23.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	3.00	23.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	7.20	15.36
tblFireplaces	NumberWood	8.16	0.00
tblLandUse	LandUseSquareFeet	5,000.00	5,006.00
tblLandUse	LandUseSquareFeet	15,320.00	15,317.00
tblLandUse	LandUseSquareFeet	48,000.00	40,614.00
tblLandUse	LotAcreage	3.00	1.89
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00

tblTripsAndVMT	HaulingTripNumber	23.00	197.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	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					
2020	0.0855	0.4249	0.3348	5.5000e-004	0.0340	0.0229	0.0569	0.0158	0.0212	0.0370	0.0000	48.6725	48.6725	0.0130	0.0000	48.9979
2021	0.2847	0.0875	0.0950	1.5000e-004	1.3800e-003	4.8300e-003	6.2100e-003	3.7000e-004	4.5400e-003	4.9100e-003	0.0000	13.0544	13.0544	2.6900e-003	0.0000	13.1216
Maximum	**0.2847**	**0.4249**	**0.3348**	**5.5000e-004**	**0.0340**	**0.0229**	**0.0569**	**0.0158**	**0.0212**	**0.0370**	**0.0000**	**48.6725**	**48.6725**	**0.0130**	**0.0000**	**48.9979**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0581	0.2890	0.3536	5.5000e-004	0.0171	2.8900e-003	0.0200	4.2400e-003	2.8900e-003	7.1200e-003	0.0000	48.6724	48.6724	0.0130	0.0000	48.9978
2021	0.2789	0.0752	0.0966	1.5000e-004	1.3800e-003	1.7000e-003	3.0700e-003	3.7000e-004	1.6900e-003	2.0700e-003	0.0000	13.0544	13.0544	2.6900e-003	0.0000	13.1216
Maximum	**0.2789**	**0.2890**	**0.3536**	**5.5000e-004**	**0.0171**	**2.8900e-003**	**0.0200**	**4.2400e-003**	**2.8900e-003**	**7.1200e-003**	**0.0000**	**48.6724**	**48.6724**	**0.0130**	**0.0000**	**48.9978**

	ROG	NOx	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	**8.98**	**28.93**	**-4.73**	**0.00**	**47.79**	**83.47**	**63.50**	**71.46**	**82.19**	**78.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2020	6-30-2020	0.2207	0.1328
2	7-1-2020	9-30-2020	0.1195	0.0835
3	10-1-2020	12-31-2020	0.1627	0.1264
4	1-1-2021	3-31-2021	0.1994	0.1814
5	4-1-2021	6-30-2021	0.1306	0.1302
6	7-1-2021	9-30-2021	0.0459	0.0458
		Highest	0.2207	0.1814

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2020	4/30/2020	5	22	
2	Site Preparation	Site Preparation	4/15/2020	5/15/2020	5	23	
3	Grading	Grading	4/15/2020	5/15/2020	5	23	
4	Trenching	Trenching	5/15/2020	6/15/2020	5	22	
5	Paving	Paving	6/1/2020	7/1/2020	5	23	
6	Building Construction	Building Construction	7/1/2020	3/1/2021	5	174	
7	Architectural Coating	Architectural Coating	12/1/2020	8/1/2021	5	174	

Acres of Grading (Site Preparation Phase): 1.44

Acres of Grading (Grading Phase): 2.88

Acres of Paving: 0.43

Residential Indoor: 82,243; Residential Outdoor: 27,414; Non-Residential Indoor: 7,509; Non-Residential Outdoor: 2,503; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	2.00	81	0.73
Demolition	Excavators	1	2.00	158	0.38

Demolition	Rubber Tired Dozers	1	2.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	2.00	97	0.37
Site Preparation	Graders	1	1.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	1.00	247	0.40
Site Preparation	Scrapers	0	1.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Grading	Graders	1	2.00	187	0.41
Grading	Rubber Tired Dozers	1	2.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	2.00	97	0.37
Trenching	Excavators	1	5.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Paving	Cement and Mortar Mixers	1	2.00	9	0.56
Paving	Pavers	1	2.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	2	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Aerial Lifts	1	1.00	63	0.31
Architectural Coating	Air Compressors	1	1.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	197.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	4.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	2	44.00	9.00	30.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	9.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4600e-003	0.0000	2.4600e-003	3.7000e-004	0.0000	3.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7900e-003	0.0469	0.0305	5.0000e-005		2.3900e-003	2.3900e-003		2.2400e-003	2.2400e-003	0.0000	4.7903	4.7903	1.1600e-003	0.0000	4.8194
Total	**4.7900e-003**	**0.0469**	**0.0305**	**5.0000e-005**	**2.4600e-003**	**2.3900e-003**	**4.8500e-003**	**3.7000e-004**	**2.2400e-003**	**2.6100e-003**	**0.0000**	**4.7903**	**4.7903**	**1.1600e-003**	**0.0000**	**4.8194**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0102	1.6600e-003	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	1.2793	1.2793	1.4000e-004	0.0000	1.2827
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	5.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0716	0.0716	0.0000	0.0000	0.0716
Total	**3.1000e-004**	**0.0102**	**2.2400e-003**	**1.0000e-005**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**1.3509**	**1.3509**	**1.4000e-004**	**0.0000**	**1.3544**

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					1.1100e-003	0.0000	1.1100e-003	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	0.0257	0.0338	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	4.7902	4.7902	1.1600e-003	0.0000	4.8194
Total	**1.2700e-003**	**0.0257**	**0.0338**	**5.0000e-005**	**1.1100e-003**	**6.6000e-004**	**1.7700e-003**	**8.0000e-005**	**6.6000e-004**	**7.4000e-004**	**0.0000**	**4.7902**	**4.7902**	**1.1600e-003**	**0.0000**	**4.8194**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0102	1.6600e-003	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	1.2793	1.2793	1.4000e-004	0.0000	1.2827
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	5.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0716	0.0716	0.0000	0.0000	0.0716
Total	**3.1000e-004**	**0.0102**	**2.2400e-003**	**1.0000e-005**	**1.6000e-004**	**1.0000e-005**	**1.7000e-004**	**4.0000e-005**	**1.0000e-005**	**5.0000e-005**	**0.0000**	**1.3509**	**1.3509**	**1.4000e-004**	**0.0000**	**1.3544**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.4200e-003	0.0000	9.4200e-003	4.8400e-003	0.0000	4.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5400e-003	0.0284	0.0118	3.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	2.3093	2.3093	7.5000e-004	0.0000	2.3280
Total	**2.5400e-003**	**0.0284**	**0.0118**	**3.0000e-005**	**9.4200e-003**	**1.2800e-003**	**0.0107**	**4.8400e-003**	**1.1800e-003**	**6.0200e-003**	**0.0000**	**2.3093**	**2.3093**	**7.5000e-004**	**0.0000**	**2.3280**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	5.0000e-005	6.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0748	0.0748	0.0000	0.0000	0.0749
Total	**1.0000e-004**	**5.0000e-005**	**6.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0748**	**0.0748**	**0.0000**	**0.0000**	**0.0749**

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					4.2400e-003	0.0000	4.2400e-003	1.0900e-003	0.0000	1.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-004	0.0128	0.0149	3.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	2.3093	2.3093	7.5000e-004	0.0000	2.3280
Total	**6.4000e-004**	**0.0128**	**0.0149**	**3.0000e-005**	**4.2400e-003**	**8.0000e-005**	**4.3200e-003**	**1.0900e-003**	**8.0000e-005**	**1.1700e-003**	**0.0000**	**2.3093**	**2.3093**	**7.5000e-004**	**0.0000**	**2.3280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	5.0000e-005	6.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0748	0.0748	0.0000	0.0000	0.0749
Total	**1.0000e-004**	**5.0000e-005**	**6.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0748**	**0.0748**	**0.0000**	**0.0000**	**0.0749**

3.4 Grading - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.0188	0.0000	0.0188	9.6800e-003	0.0000	9.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0700e-003	0.0568	0.0237	5.0000e-005		2.5600e-003	2.5600e-003		2.3500e-003	2.3500e-003	0.0000	4.6186	4.6186	1.4900e-003	0.0000	4.6559
Total	**5.0700e-003**	**0.0568**	**0.0237**	**5.0000e-005**	**0.0188**	**2.5600e-003**	**0.0214**	**9.6800e-003**	**2.3500e-003**	**0.0120**	**0.0000**	**4.6186**	**4.6186**	**1.4900e-003**	**0.0000**	**4.6559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	5.0000e-005	6.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0748	0.0748	0.0000	0.0000	0.0749
Total	**1.0000e-004**	**5.0000e-005**	**6.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0748**	**0.0748**	**0.0000**	**0.0000**	**0.0749**

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					8.4800e-003	0.0000	8.4800e-003	2.1800e-003	0.0000	2.1800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2900e-003	0.0256	0.0299	5.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	4.6186	4.6186	1.4900e-003	0.0000	4.6559

Total	**1.2900e-003**	**0.0256**	**0.0299**	**5.0000e-005**	**8.4800e-003**	**1.7000e-004**	**8.6500e-003**	**2.1800e-003**	**1.7000e-004**	**2.3500e-003**	**0.0000**	**4.6186**	**4.6186**	**1.4900e-003**	**0.0000**	**4.6559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	5.0000e-005	6.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0748	0.0748	0.0000	0.0000	0.0749
Total	**1.0000e-004**	**5.0000e-005**	**6.0000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0748**	**0.0748**	**0.0000**	**0.0000**	**0.0749**

3.5 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1200e-003	0.0311	0.0381	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	4.9951	4.9951	1.6200e-003	0.0000	5.0354
Total	**3.1200e-003**	**0.0311**	**0.0381**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**4.9951**	**4.9951**	**1.6200e-003**	**0.0000**	**5.0354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0448
Total	**6.0000e-005**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0447**	**0.0447**	**0.0000**	**0.0000**	**0.0448**

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	1.4000e-003	0.0288	0.0430	6.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	4.9950	4.9950	1.6200e-003	0.0000	5.0354
Total	**1.4000e-003**	**0.0288**	**0.0430**	**6.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**4.9950**	**4.9950**	**1.6200e-003**	**0.0000**	**5.0354**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0447	0.0447	0.0000	0.0000	0.0448
Total	**6.0000e-005**	**3.0000e-005**	**3.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0447**	**0.0447**	**0.0000**	**0.0000**	**0.0448**

3.6 Paving - 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	3.3200e-003	0.0333	0.0340	5.0000e-005		1.8900e-003	1.8900e-003		1.7400e-003	1.7400e-003	0.0000	4.4579	4.4579	1.4100e-003	0.0000	4.4932
Paving	1.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4200e-003**	**0.0333**	**0.0340**	**5.0000e-005**		**1.8900e-003**	**1.8900e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**4.4579**	**4.4579**	**1.4100e-003**	**0.0000**	**4.4932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	2.1000e-004	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0260	0.0260	0.0000	0.0000	0.0261
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	1.9000e-004	9.0000e-005	1.1300e-003	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1403	0.1403	1.0000e-005	0.0000	0.1404

Total	**1.9000e-004**	**3.0000e-004**	**1.1600e-003**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1663**	**0.1663**	**1.0000e-005**	**0.0000**	**0.1665**

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	1.2100e-003	0.0255	0.0373	5.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	4.4579	4.4579	1.4100e-003	0.0000	4.4932
Paving	1.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.3100e-003**	**0.0255**	**0.0373**	**5.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**4.4579**	**4.4579**	**1.4100e-003**	**0.0000**	**4.4932**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	2.1000e-004	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0260	0.0260	0.0000	0.0000	0.0261
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	1.9000e-004	9.0000e-005	1.1300e-003	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1403	0.1403	1.0000e-005	0.0000	0.1404
Total	**1.9000e-004**	**3.0000e-004**	**1.1600e-003**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1663**	**0.1663**	**1.0000e-005**	**0.0000**	**0.1665**

3.7 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	0.0190	0.1713	0.1558	2.0000e-004		0.0128	0.0128		0.0117	0.0117	0.0000	17.7265	17.7265	5.7300e-003	0.0000	17.8698
Total	**0.0190**	**0.1713**	**0.1558**	**2.0000e-004**		**0.0128**	**0.0128**		**0.0117**	**0.0117**	**0.0000**	**17.7265**	**17.7265**	**5.7300e-003**	**0.0000**	**17.8698**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.1700e-003	1.9000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1478	0.1478	2.0000e-005	0.0000	0.1482
Vendor	1.1200e-003	0.0397	0.0110	5.0000e-005	5.5000e-004	6.0000e-005	6.1000e-004	1.6000e-004	6.0000e-005	2.2000e-004	0.0000	4.7685	4.7685	4.7000e-004	0.0000	4.7801
Worker	3.2200e-003	1.4700e-003	0.0190	3.0000e-005	2.1600e-003	3.0000e-005	2.1900e-003	5.8000e-004	3.0000e-005	6.0000e-004	0.0000	2.3615	2.3615	1.0000e-004	0.0000	2.3641
Total	**4.3600e-003**	**0.0424**	**0.0303**	**8.0000e-005**	**2.7200e-003**	**9.0000e-005**	**2.8100e-003**	**7.4000e-004**	**9.0000e-005**	**8.2000e-004**	**0.0000**	**7.2778**	**7.2778**	**5.9000e-004**	**0.0000**	**7.2924**

Mitigated Construction On-Site

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

Off-Road	4.9700e-003	0.1136	0.1533	2.0000e-004		1.1900e-003	1.1900e-003		1.1900e-003	1.1900e-003	0.0000	17.7264	17.7264	5.7300e-003	0.0000	17.8698
Total	**4.9700e-003**	**0.1136**	**0.1533**	**2.0000e-004**		**1.1900e-003**	**1.1900e-003**		**1.1900e-003**	**1.1900e-003**	**0.0000**	**17.7264**	**17.7264**	**5.7300e-003**	**0.0000**	**17.8698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.1700e-003	1.9000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1478	0.1478	2.0000e-005	0.0000	0.1482
Vendor	1.1200e-003	0.0397	0.0110	5.0000e-005	5.5000e-004	6.0000e-005	6.1000e-004	1.6000e-004	6.0000e-005	2.2000e-004	0.0000	4.7685	4.7685	4.7000e-004	0.0000	4.7801
Worker	3.2200e-003	1.4700e-003	0.0190	3.0000e-005	2.1600e-003	3.0000e-005	2.1900e-003	5.8000e-004	3.0000e-005	6.0000e-004	0.0000	2.3615	2.3615	1.0000e-004	0.0000	2.3641
Total	**4.3600e-003**	**0.0424**	**0.0303**	**8.0000e-005**	**2.7200e-003**	**9.0000e-005**	**2.8100e-003**	**7.4000e-004**	**9.0000e-005**	**8.2000e-004**	**0.0000**	**7.2778**	**7.2778**	**5.9000e-004**	**0.0000**	**7.2924**

3.7 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4300e-003	0.0495	0.0491	6.0000e-005		3.5200e-003	3.5200e-003		3.2300e-003	3.2300e-003	0.0000	5.6402	5.6402	1.8200e-003	0.0000	5.6858
Total	**5.4300e-003**	**0.0495**	**0.0491**	**6.0000e-005**		**3.5200e-003**	**3.5200e-003**		**3.2300e-003**	**3.2300e-003**	**0.0000**	**5.6402**	**5.6402**	**1.8200e-003**	**0.0000**	**5.6858**

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	1.0000e-005	3.6000e-004	6.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0465	0.0465	0.0000	0.0000	0.0467
Vendor	3.2000e-004	0.0120	3.2400e-003	2.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	1.5028	1.5028	1.4000e-004	0.0000	1.5063
Worker	9.4000e-004	4.1000e-004	5.4600e-003	1.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.7259	0.7259	3.0000e-005	0.0000	0.7266
Total	**1.2700e-003**	**0.0128**	**8.7600e-003**	**3.0000e-005**	**8.7000e-004**	**2.0000e-005**	**8.9000e-004**	**2.3000e-004**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**2.2752**	**2.2752**	**1.7000e-004**	**0.0000**	**2.2795**

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	1.5800e-003	0.0361	0.0488	6.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	5.6402	5.6402	1.8200e-003	0.0000	5.6858
Total	**1.5800e-003**	**0.0361**	**0.0488**	**6.0000e-005**		**3.8000e-004**	**3.8000e-004**		**3.8000e-004**	**3.8000e-004**	**0.0000**	**5.6402**	**5.6402**	**1.8200e-003**	**0.0000**	**5.6858**

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	1.0000e-005	3.6000e-004	6.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0465	0.0465	0.0000	0.0000	0.0467
Vendor	3.2000e-004	0.0120	3.2400e-003	2.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	1.5028	1.5028	1.4000e-004	0.0000	1.5063
Worker	9.4000e-004	4.1000e-004	5.4600e-003	1.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.7259	0.7259	3.0000e-005	0.0000	0.7266
Total	**1.2700e-003**	**0.0128**	**8.7600e-003**	**3.0000e-005**	**8.7000e-004**	**2.0000e-005**	**8.9000e-004**	**2.3000e-004**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**2.2752**	**2.2752**	**1.7000e-004**	**0.0000**	**2.2795**

3.8 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0418					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	4.1500e-003	5.0800e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.7014	0.7014	1.1000e-004	0.0000	0.7041
Total	**0.0423**	**4.1500e-003**	**5.0800e-003**	**1.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**0.7014**	**0.7014**	**1.1000e-004**	**0.0000**	**0.7041**

Unmitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	5.0000e-005	6.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0842	0.0842	0.0000	0.0000	0.0843
Total	**1.1000e-004**	**5.0000e-005**	**6.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0842**	**0.0842**	**0.0000**	**0.0000**	**0.0843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0418					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	3.9600e-003	5.3400e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.7014	0.7014	1.1000e-004	0.0000	0.7041
Total	**0.0419**	**3.9600e-003**	**5.3400e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.7014**	**0.7014**	**1.1000e-004**	**0.0000**	**0.7041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	5.0000e-005	6.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0842	0.0842	0.0000	0.0000	0.0843
Total	**1.1000e-004**	**5.0000e-005**	**6.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0842**	**0.0842**	**0.0000**	**0.0000**	**0.0843**

3.8 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1100e-003	0.0249	0.0332	5.0000e-005		1.2900e-003	1.2900e-003		1.2800e-003	1.2800e-003	0.0000	4.6051	4.6051	6.7000e-004	0.0000	4.6219
Total	**0.2773**	**0.0249**	**0.0332**	**5.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**4.6051**	**4.6051**	**6.7000e-004**	**0.0000**	**4.6219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	3.0000e-004	4.0200e-003	1.0000e-005	5.1000e-004	1.0000e-005	5.1000e-004	1.4000e-004	1.0000e-005	1.4000e-004	0.0000	0.5338	0.5338	2.0000e-005	0.0000	0.5343
Total	**6.9000e-004**	**3.0000e-004**	**4.0200e-003**	**1.0000e-005**	**5.1000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5338**	**0.5338**	**2.0000e-005**	**0.0000**	**0.5343**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1400e-003	0.0260	0.0351	5.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	4.6051	4.6051	6.7000e-004	0.0000	4.6219
Total	**0.2753**	**0.0260**	**0.0351**	**5.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**4.6051**	**4.6051**	**6.7000e-004**	**0.0000**	**4.6219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	3.0000e-004	4.0200e-003	1.0000e-005	5.1000e-004	1.0000e-005	5.1000e-004	1.4000e-004	1.0000e-005	1.4000e-004	0.0000	0.5338	0.5338	2.0000e-005	0.0000	0.5343
Total	**6.9000e-004**	**3.0000e-004**	**4.0200e-003**	**1.0000e-005**	**5.1000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.5338**	**0.5338**	**2.0000e-005**	**0.0000**	**0.5343**

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	50.7929	50.7929	5.0800e-003	1.0500e-003	51.2330
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.7929	50.7929	5.0800e-003	1.0500e-003	51.2330
NaturalGas Mitigated	3.0800e-003	0.0266	0.0130	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4970	30.4970	5.8000e-004	5.6000e-004	30.6783
NaturalGas Unmitigated	3.0800e-003	0.0266	0.0130	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4970	30.4970	5.8000e-004	5.6000e-004	30.6783

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 Low Rise	489545	2.6400e-003	0.0226	9.6000e-003	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.1240	26.1240	5.0000e-004	4.8000e-004	26.2792
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	81948.2	4.4000e-004	4.0200e-003	3.3700e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3731	4.3731	8.0000e-005	8.0000e-005	4.3991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.0800e-003**	**0.0266**	**0.0130**	**1.6000e-004**		**2.1300e-003**	**2.1300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**30.4970**	**30.4970**	**5.8000e-004**	**5.6000e-004**	**30.6783**

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 Low Rise	489545	2.6400e-003	0.0226	9.6000e-003	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.1240	26.1240	5.0000e-004	4.8000e-004	26.2792

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	81948.2	4.4000e-004	4.0200e-003	3.3700e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3731	4.3731	8.0000e-005	8.0000e-005	4.3991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.0800e-003**	**0.0266**	**0.0130**	**1.6000e-004**		**2.1300e-003**	**2.1300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**30.4970**	**30.4970**	**5.8000e-004**	**5.6000e-004**	**30.6783**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	208742	27.4584	2.7500e-003	5.7000e-004	27.6963
Enclosed Parking Structure	86847.4	11.4241	1.1400e-003	2.4000e-004	11.5231
General Office Building	89257	11.7410	1.1700e-003	2.4000e-004	11.8428
Parking Lot	1288	0.1694	2.0000e-005	0.0000	0.1709
Total		**50.7929**	**5.0800e-003**	**1.0500e-003**	**51.2330**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	208742	27.4584	2.7500e-003	5.7000e-004	27.6963
Enclosed Parking Structure	86847.4	11.4241	1.1400e-003	2.4000e-004	11.5231

General Office Building	89257	11.7410	1.1700e-003	2.4000e-004	11.8428
Parking Lot	1288	0.1694	2.0000e-005	0.0000	0.1709
Total		**50.7929**	**5.0800e-003**	**1.0500e-003**	**51.2330**

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	0.2220	5.7700e-003	0.3577	3.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	2.5001	2.5001	6.0000e-004	4.0000e-005	2.5256
Unmitigated	0.2220	5.7700e-003	0.3577	3.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	2.5001	2.5001	6.0000e-004	4.0000e-005	2.5256

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	0.0316					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	1.9000e-004	1.6600e-003	7.0000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9175	1.9175	4.0000e-005	4.0000e-005	1.9289
Landscaping	0.0108	4.1200e-003	0.3570	2.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	0.5826	0.5826	5.6000e-004	0.0000	0.5967
Total	**0.2220**	**5.7800e-003**	**0.3577**	**3.0000e-005**		**2.1000e-003**	**2.1000e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**2.5001**	**2.5001**	**6.0000e-004**	**4.0000e-005**	**2.5256**

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	0.0316					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9000e-004	1.6600e-003	7.0000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9175	1.9175	4.0000e-005	4.0000e-005	1.9289
Landscaping	0.0108	4.1200e-003	0.3570	2.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	0.5826	0.5826	5.6000e-004	0.0000	0.5967
Total	**0.2220**	**5.7800e-003**	**0.3577**	**3.0000e-005**		**2.1000e-003**	**2.1000e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**2.5001**	**2.5001**	**6.0000e-004**	**4.0000e-005**	**2.5256**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.4379	5.2900e-003	3.1700e-003	6.5158

Unmitigated	5.4379	5.2900e-003	3.1700e-003	6.5158

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.12739 / 1.97162	4.2402	4.1200e-003	2.4700e-003	5.0796
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	1.1977	1.1700e-003	7.0000e-004	1.4362
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.4379**	**5.2900e-003**	**3.1700e-003**	**6.5158**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.12739 / 1.97162	4.2402	4.1200e-003	2.4700e-003	5.0796
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	1.1977	1.1700e-003	7.0000e-004	1.4362
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Total		**5.4379**	**5.2900e-003**	**3.1700e-003**	**6.5158**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.4260	0.3207	0.0000	13.4426
Unmitigated	5.4260	0.3207	0.0000	13.4426

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	22.08	4.4820	0.2649	0.0000	11.1041
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		**5.4260**	**0.3207**	**0.0000**	**13.4426**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	22.08	4.4820	0.2649	0.0000	11.1041
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.4260**	**0.3207**	**0.0000**	**13.4426**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 4 - Operational Emissions, CalEEMod Output

3035 El Camino Real, Santa Clara

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	5.00	1000sqft	0.11	5,006.00	0
Enclosed Parking Structure	15.32	1000sqft	0.35	15,317.00	0
Parking Lot	3.68	1000sqft	0.08	3,680.00	0
Apartments Low Rise	48.00	Dwelling Unit	1.89	40,614.00	137

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate = 290

Land Use - based on provided construciton information

Construction Phase - Applicant provided schedule, added trenching

Off-road Equipment - added this phase

Grading -

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Off-road Equipment - Applicant provided equipment/hours

Demolition - Applicant provided building Demo 5,000sf

Trips and VMT - 78,000sf pavement = 722cy = 867tons = 87 round trip truck loads = 174 one-way pavement demo, 174+23 existing = 197 demo hauling, 20 one-way cement trips building constr, 10cy asphalt paving = 12tons = 2 round trip, 4 one-way trips paving asphalt

Woodstoves - No Wood, added to gas

Water And Wastewater - 100% Aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	174.00
tblConstructionPhase	NumDays	220.00	174.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	6.00	23.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	3.00	23.00
tblConstructionPhase	PhaseEndDate	4/12/2021	8/1/2021
tblConstructionPhase	PhaseEndDate	3/15/2021	3/1/2021
tblConstructionPhase	PhaseEndDate	4/28/2020	4/30/2020
tblConstructionPhase	PhaseEndDate	5/11/2020	5/15/2020
tblConstructionPhase	PhaseEndDate	3/29/2021	7/1/2020
tblConstructionPhase	PhaseEndDate	5/1/2020	5/15/2020
tblConstructionPhase	PhaseStartDate	3/30/2021	12/1/2020
tblConstructionPhase	PhaseStartDate	5/12/2020	7/1/2020
tblConstructionPhase	PhaseStartDate	5/2/2020	4/15/2020
tblConstructionPhase	PhaseStartDate	3/16/2021	6/1/2020
tblConstructionPhase	PhaseStartDate	4/29/2020	4/15/2020
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	7.20	15.36
tblFireplaces	NumberWood	8.16	0.00

tblLandUse	LandUseSquareFeet	5,000.00	5,006.00
tblLandUse	LandUseSquareFeet	15,320.00	15,317.00
tblLandUse	LandUseSquareFeet	48,000.00	40,614.00
tblLandUse	LotAcreage	3.00	1.89
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripNumber	23.00	197.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	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					
2020	0.0952	0.4804	0.4114	9.7000e-004	0.0644	0.0235	0.0878	0.0240	0.0217	0.0456	0.0000	87.5214	87.5214	0.0140	0.0000	87.8705
2021	0.2883	0.0982	0.1243	2.9000e-004	0.0142	4.9300e-003	0.0191	3.7900e-003	4.6300e-003	8.4300e-003	0.0000	25.9332	25.9332	2.9600e-003	0.0000	26.0072
Maximum	**0.2883**	**0.4804**	**0.4114**	**9.7000e-004**	**0.0644**	**0.0235**	**0.0878**	**0.0240**	**0.0217**	**0.0456**	**0.0000**	**87.5214**	**87.5214**	**0.0140**	**0.0000**	**87.8705**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0952	0.4804	0.4114	9.7000e-004	0.0644	0.0235	0.0878	0.0240	0.0217	0.0456	0.0000	87.5214	87.5214	0.0140	0.0000	87.8705
2021	0.2883	0.0982	0.1243	2.9000e-004	0.0142	4.9300e-003	0.0191	3.7900e-003	4.6300e-003	8.4300e-003	0.0000	25.9332	25.9332	2.9600e-003	0.0000	26.0072
Maximum	**0.2883**	**0.4804**	**0.4114**	**9.7000e-004**	**0.0644**	**0.0235**	**0.0878**	**0.0240**	**0.0217**	**0.0456**	**0.0000**	**87.5214**	**87.5214**	**0.0140**	**0.0000**	**87.8705**

	ROG	NOx	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	**4-1-2020**	**6-30-2020**	0.2408	0.2408
2	**7-1-2020**	**9-30-2020**	0.1401	0.1401
3	**10-1-2020**	**12-31-2020**	0.1857	0.1857
4	**1-1-2021**	**3-31-2021**	0.2133	0.2133
5	**4-1-2021**	**6-30-2021**	0.1316	0.1316
6	**7-1-2021**	**9-30-2021**	0.0463	0.0463
		Highest	0.2408	0.2408

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	0.2220	5.7700e-003	0.3577	3.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	2.5001	2.5001	6.0000e-004	4.0000e-005	2.5256
Energy	3.0800e-003	0.0266	0.0130	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	81.2899	81.2899	5.6600e-003	1.6100e-003	81.9113
Mobile	0.0833	0.3532	0.9691	3.3500e-003	0.3092	2.8500e-003	0.3120	0.0828	2.6600e-003	0.0854	0.0000	306.9343	306.9343	0.0104	0.0000	307.1934
Waste						0.0000	0.0000		0.0000	0.0000	5.4260	0.0000	5.4260	0.3207	0.0000	13.4426
Water						0.0000	0.0000		0.0000	0.0000	1.4209	4.0170	5.4379	5.2900e-003	3.1700e-003	6.5158
Total	**0.3083**	**0.3855**	**1.3398**	**3.5500e-003**	**0.3092**	**7.0900e-003**	**0.3163**	**0.0828**	**6.9000e-003**	**0.0897**	**6.8468**	**394.7413**	**401.5882**	**0.3426**	**4.8200e-003**	**411.5886**

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	0.2220	5.7700e-003	0.3577	3.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	2.5001	2.5001	6.0000e-004	4.0000e-005	2.5256
Energy	3.0800e-003	0.0266	0.0130	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	81.2899	81.2899	5.6600e-003	1.6100e-003	81.9113
Mobile	0.0833	0.3532	0.9691	3.3500e-003	0.3092	2.8500e-003	0.3120	0.0828	2.6600e-003	0.0854	0.0000	306.9343	306.9343	0.0104	0.0000	307.1934
Waste						0.0000	0.0000		0.0000	0.0000	5.4260	0.0000	5.4260	0.3207	0.0000	13.4426
Water						0.0000	0.0000		0.0000	0.0000	1.4209	4.0170	5.4379	5.2900e-003	3.1700e-003	6.5158

Total	0.3083	0.3855	1.3398	3.5500e-003	0.3092	7.0900e-003	0.3163	0.0828	6.9000e-003	0.0897	6.8468	394.7413	401.5882	0.3426	4.8200e-003	411.5886

	ROG	NOx	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	4/1/2020	4/30/2020	5	22	
2	Site Preparation	Site Preparation	4/15/2020	5/15/2020	5	23	
3	Grading	Grading	4/15/2020	5/15/2020	5	23	
4	Building Construction	Building Construction	7/1/2020	3/1/2021	5	174	
5	Paving	Paving	6/1/2020	7/1/2020	5	23	
6	Architectural Coating	Architectural Coating	12/1/2020	8/1/2021	5	174	
7	Trenching	Trenching	5/15/2020	6/15/2020	5	22	

Acres of Grading (Site Preparation Phase): 1.44

Acres of Grading (Grading Phase): 2.88

Acres of Paving: 0.43

Residential Indoor: 82,243; Residential Outdoor: 27,414; Non-Residential Indoor: 7,509; Non-Residential Outdoor: 2,503; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	2.00	81	0.73
Demolition	Rubber Tired Dozers	1	2.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	2.00	97	0.37
Site Preparation	Graders	1	1.00	187	0.41
Site Preparation	Scrapers	0	1.00	367	0.48

Site Preparation	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Grading	Graders	1	2.00	187	0.41
Grading	Rubber Tired Dozers	1	2.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	2.00	97	0.37
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	2.00	9	0.56
Paving	Pavers	1	2.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	2	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.00	97	0.37
Architectural Coating	Air Compressors	1	1.00	78	0.48
Demolition	Excavators	1	2.00	158	0.38
Site Preparation	Rubber Tired Dozers	1	1.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Trenching	Excavators	1	5.00	158	0.38
Architectural Coating	Aerial Lifts	1	1.00	63	0.31

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	3	8.00	0.00	197.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	2	44.00	9.00	30.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	9.00	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 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4600e-003	0.0000	2.4600e-003	3.7000e-004	0.0000	3.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7900e-003	0.0469	0.0305	5.0000e-005		2.3900e-003	2.3900e-003		2.2400e-003	2.2400e-003	0.0000	4.7903	4.7903	1.1600e-003	0.0000	4.8194
Total	**4.7900e-003**	**0.0469**	**0.0305**	**5.0000e-005**	**2.4600e-003**	**2.3900e-003**	**4.8500e-003**	**3.7000e-004**	**2.2400e-003**	**2.6100e-003**	**0.0000**	**4.7903**	**4.7903**	**1.1600e-003**	**0.0000**	**4.8194**

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	8.2000e-004	0.0286	5.8500e-003	8.0000e-005	1.6700e-003	9.0000e-005	1.7600e-003	4.6000e-004	9.0000e-005	5.5000e-004	0.0000	7.5127	7.5127	3.4000e-004	0.0000	7.5213
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	2.9000e-004	2.1000e-004	2.2000e-003	1.0000e-005	7.0000e-004	0.0000	7.0000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5985	0.5985	1.0000e-005	0.0000	0.5989
Total	**1.1100e-003**	**0.0288**	**8.0500e-003**	**9.0000e-005**	**2.3700e-003**	**9.0000e-005**	**2.4600e-003**	**6.5000e-004**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**8.1112**	**8.1112**	**3.5000e-004**	**0.0000**	**8.1202**

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					2.4600e-003	0.0000	2.4600e-003	3.7000e-004	0.0000	3.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7900e-003	0.0469	0.0305	5.0000e-005		2.3900e-003	2.3900e-003		2.2400e-003	2.2400e-003	0.0000	4.7902	4.7902	1.1600e-003	0.0000	4.8194
Total	**4.7900e-003**	**0.0469**	**0.0305**	**5.0000e-005**	**2.4600e-003**	**2.3900e-003**	**4.8500e-003**	**3.7000e-004**	**2.2400e-003**	**2.6100e-003**	**0.0000**	**4.7902**	**4.7902**	**1.1600e-003**	**0.0000**	**4.8194**

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	8.2000e-004	0.0286	5.8500e-003	8.0000e-005	1.6700e-003	9.0000e-005	1.7600e-003	4.6000e-004	9.0000e-005	5.5000e-004	0.0000	7.5127	7.5127	3.4000e-004	0.0000	7.5213
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	2.9000e-004	2.1000e-004	2.2000e-003	1.0000e-005	7.0000e-004	0.0000	7.0000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5985	0.5985	1.0000e-005	0.0000	0.5989
Total	**1.1100e-003**	**0.0288**	**8.0500e-003**	**9.0000e-005**	**2.3700e-003**	**9.0000e-005**	**2.4600e-003**	**6.5000e-004**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**8.1112**	**8.1112**	**3.5000e-004**	**0.0000**	**8.1202**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					9.4200e-003	0.0000	9.4200e-003	4.8400e-003	0.0000	4.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5400e-003	0.0284	0.0118	3.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	2.3093	2.3093	7.5000e-004	0.0000	2.3280
Total	**2.5400e-003**	**0.0284**	**0.0118**	**3.0000e-005**	**9.4200e-003**	**1.2800e-003**	**0.0107**	**4.8400e-003**	**1.1800e-003**	**6.0200e-003**	**0.0000**	**2.3093**	**2.3093**	**7.5000e-004**	**0.0000**	**2.3280**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.3000e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6257	0.6257	2.0000e-005	0.0000	0.6261
Total	**3.1000e-004**	**2.2000e-004**	**2.3000e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6257**	**0.6257**	**2.0000e-005**	**0.0000**	**0.6261**

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					9.4200e-003	0.0000	9.4200e-003	4.8400e-003	0.0000	4.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5400e-003	0.0284	0.0118	3.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	2.3093	2.3093	7.5000e-004	0.0000	2.3280

Total	**2.5400e-003**	**0.0284**	**0.0118**	**3.0000e-005**	**9.4200e-003**	**1.2800e-003**	**0.0107**	**4.8400e-003**	**1.1800e-003**	**6.0200e-003**	**0.0000**	**2.3093**	**2.3093**	**7.5000e-004**	**0.0000**	**2.3280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.3000e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6257	0.6257	2.0000e-005	0.0000	0.6261
Total	**3.1000e-004**	**2.2000e-004**	**2.3000e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6257**	**0.6257**	**2.0000e-005**	**0.0000**	**0.6261**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0188	0.0000	0.0188	9.6800e-003	0.0000	9.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0700e-003	0.0568	0.0237	5.0000e-005		2.5600e-003	2.5600e-003		2.3500e-003	2.3500e-003	0.0000	4.6186	4.6186	1.4900e-003	0.0000	4.6559
Total	**5.0700e-003**	**0.0568**	**0.0237**	**5.0000e-005**	**0.0188**	**2.5600e-003**	**0.0214**	**9.6800e-003**	**2.3500e-003**	**0.0120**	**0.0000**	**4.6186**	**4.6186**	**1.4900e-003**	**0.0000**	**4.6559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.3000e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6257	0.6257	2.0000e-005	0.0000	0.6261
Total	**3.1000e-004**	**2.2000e-004**	**2.3000e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6257**	**0.6257**	**2.0000e-005**	**0.0000**	**0.6261**

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					0.0188	0.0000	0.0188	9.6800e-003	0.0000	9.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0700e-003	0.0568	0.0237	5.0000e-005		2.5600e-003	2.5600e-003		2.3500e-003	2.3500e-003	0.0000	4.6186	4.6186	1.4900e-003	0.0000	4.6559
Total	**5.0700e-003**	**0.0568**	**0.0237**	**5.0000e-005**	**0.0188**	**2.5600e-003**	**0.0214**	**9.6800e-003**	**2.3500e-003**	**0.0120**	**0.0000**	**4.6186**	**4.6186**	**1.4900e-003**	**0.0000**	**4.6559**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.3000e-003	1.0000e-005	7.3000e-004	0.0000	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6257	0.6257	2.0000e-005	0.0000	0.6261
Total	**3.1000e-004**	**2.2000e-004**	**2.3000e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.3000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6257**	**0.6257**	**2.0000e-005**	**0.0000**	**0.6261**

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	0.0190	0.1713	0.1558	2.0000e-004		0.0128	0.0128		0.0117	0.0117	0.0000	17.7265	17.7265	5.7300e-003	0.0000	17.8698
Total	**0.0190**	**0.1713**	**0.1558**	**2.0000e-004**		**0.0128**	**0.0128**		**0.0117**	**0.0117**	**0.0000**	**17.7265**	**17.7265**	**5.7300e-003**	**0.0000**	**17.8698**

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	9.0000e-005	3.3000e-003	6.8000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.8679	0.8679	4.0000e-005	0.0000	0.8689
Vendor	2.3500e-003	0.0676	0.0180	1.6000e-004	3.9100e-003	3.3000e-004	4.2400e-003	1.1300e-003	3.2000e-004	1.4500e-003	0.0000	15.5297	15.5297	7.1000e-004	0.0000	15.5475
Worker	9.6500e-003	6.9300e-003	0.0727	2.2000e-004	0.0230	1.5000e-004	0.0232	6.1300e-003	1.4000e-004	6.2600e-003	0.0000	19.7515	19.7515	4.8000e-004	0.0000	19.7637
Total	**0.0121**	**0.0779**	**0.0914**	**3.9000e-004**	**0.0272**	**4.9000e-004**	**0.0277**	**7.3200e-003**	**4.7000e-004**	**7.7800e-003**	**0.0000**	**36.1492**	**36.1492**	**1.2300e-003**	**0.0000**	**36.1801**

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	0.0190	0.1713	0.1558	2.0000e-004		0.0128	0.0128		0.0117	0.0117	0.0000	17.7264	17.7264	5.7300e-003	0.0000	17.8698
Total	**0.0190**	**0.1713**	**0.1558**	**2.0000e-004**		**0.0128**	**0.0128**		**0.0117**	**0.0117**	**0.0000**	**17.7264**	**17.7264**	**5.7300e-003**	**0.0000**	**17.8698**

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	9.0000e-005	3.3000e-003	6.8000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.8679	0.8679	4.0000e-005	0.0000	0.8689
Vendor	2.3500e-003	0.0676	0.0180	1.6000e-004	3.9100e-003	3.3000e-004	4.2400e-003	1.1300e-003	3.2000e-004	1.4500e-003	0.0000	15.5297	15.5297	7.1000e-004	0.0000	15.5475
Worker	9.6500e-003	6.9300e-003	0.0727	2.2000e-004	0.0230	1.5000e-004	0.0232	6.1300e-003	1.4000e-004	6.2600e-003	0.0000	19.7515	19.7515	4.8000e-004	0.0000	19.7637
Total	**0.0121**	**0.0779**	**0.0914**	**3.9000e-004**	**0.0272**	**4.9000e-004**	**0.0277**	**7.3200e-003**	**4.7000e-004**	**7.7800e-003**	**0.0000**	**36.1492**	**36.1492**	**1.2300e-003**	**0.0000**	**36.1801**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4300e-003	0.0495	0.0491	6.0000e-005		3.5200e-003	3.5200e-003		3.2300e-003	3.2300e-003	0.0000	5.6402	5.6402	1.8200e-003	0.0000	5.6858
Total	**5.4300e-003**	**0.0495**	**0.0491**	**6.0000e-005**		**3.5200e-003**	**3.5200e-003**		**3.2300e-003**	**3.2300e-003**	**0.0000**	**5.6402**	**5.6402**	**1.8200e-003**	**0.0000**	**5.6858**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	9.7000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.2727	0.2727	1.0000e-005	0.0000	0.2730
Vendor	6.2000e-004	0.0194	5.1700e-003	5.0000e-005	1.2400e-003	4.0000e-005	1.2900e-003	3.6000e-004	4.0000e-005	4.0000e-004	0.0000	4.8957	4.8957	2.1000e-004	0.0000	4.9010
Worker	2.8500e-003	1.9700e-003	0.0211	7.0000e-005	7.3300e-003	5.0000e-005	7.3700e-003	1.9500e-003	4.0000e-005	1.9900e-003	0.0000	6.0665	6.0665	1.4000e-004	0.0000	6.0699
Total	**3.5000e-003**	**0.0224**	**0.0265**	**1.2000e-004**	**8.7800e-003**	**9.0000e-005**	**8.8700e-003**	**2.3600e-003**	**8.0000e-005**	**2.4500e-003**	**0.0000**	**11.2348**	**11.2348**	**3.6000e-004**	**0.0000**	**11.2439**

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	5.4300e-003	0.0495	0.0491	6.0000e-005		3.5200e-003	3.5200e-003		3.2300e-003	3.2300e-003	0.0000	5.6402	5.6402	1.8200e-003	0.0000	5.6858

Total	**5.4300e-003**	**0.0495**	**0.0491**	**6.0000e-005**		**3.5200e-003**	**3.5200e-003**		**3.2300e-003**	**3.2300e-003**	**0.0000**	**5.6402**	**5.6402**	**1.8200e-003**	**0.0000**	**5.6858**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	9.7000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.2727	0.2727	1.0000e-005	0.0000	0.2730
Vendor	6.2000e-004	0.0194	5.1700e-003	5.0000e-005	1.2400e-003	4.0000e-005	1.2900e-003	3.6000e-004	4.0000e-005	4.0000e-004	0.0000	4.8957	4.8957	2.1000e-004	0.0000	4.9010
Worker	2.8500e-003	1.9700e-003	0.0211	7.0000e-005	7.3300e-003	5.0000e-005	7.3700e-003	1.9500e-003	4.0000e-005	1.9900e-003	0.0000	6.0665	6.0665	1.4000e-004	0.0000	6.0699
Total	**3.5000e-003**	**0.0224**	**0.0265**	**1.2000e-004**	**8.7800e-003**	**9.0000e-005**	**8.8700e-003**	**2.3600e-003**	**8.0000e-005**	**2.4500e-003**	**0.0000**	**11.2348**	**11.2348**	**3.6000e-004**	**0.0000**	**11.2439**

3.6 Paving - 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	3.3200e-003	0.0333	0.0340	5.0000e-005		1.8900e-003	1.8900e-003		1.7400e-003	1.7400e-003	0.0000	4.4579	4.4579	1.4100e-003	0.0000	4.4932
Paving	1.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4200e-003**	**0.0333**	**0.0340**	**5.0000e-005**		**1.8900e-003**	**1.8900e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**4.4579**	**4.4579**	**1.4100e-003**	**0.0000**	**4.4932**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	5.8000e-004	1.2000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1525	0.1525	1.0000e-005	0.0000	0.1527
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	4.3200e-003	1.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1733	1.1733	3.0000e-005	0.0000	1.1740
Total	**5.9000e-004**	**9.9000e-004**	**4.4400e-003**	**1.0000e-005**	**1.4000e-003**	**1.0000e-005**	**1.4200e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.3258**	**1.3258**	**4.0000e-005**	**0.0000**	**1.3267**

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	3.3200e-003	0.0333	0.0340	5.0000e-005		1.8900e-003	1.8900e-003		1.7400e-003	1.7400e-003	0.0000	4.4579	4.4579	1.4100e-003	0.0000	4.4932
Paving	1.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4200e-003**	**0.0333**	**0.0340**	**5.0000e-005**		**1.8900e-003**	**1.8900e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**4.4579**	**4.4579**	**1.4100e-003**	**0.0000**	**4.4932**

Mitigated Construction Off-Site

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

Hauling	2.0000e-005	5.8000e-004	1.2000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1525	0.1525	1.0000e-005	0.0000	0.1527
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	4.3200e-003	1.0000e-005	1.3700e-003	1.0000e-005	1.3800e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1733	1.1733	3.0000e-005	0.0000	1.1740
Total	**5.9000e-004**	**9.9000e-004**	**4.4400e-003**	**1.0000e-005**	**1.4000e-003**	**1.0000e-005**	**1.4200e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.3258**	**1.3258**	**4.0000e-005**	**0.0000**	**1.3267**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0418					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	4.1500e-003	5.0700e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.7002	0.7002	1.1000e-004	0.0000	0.7029
Total	**0.0423**	**4.1500e-003**	**5.0700e-003**	**1.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**0.7002**	**0.7002**	**1.1000e-004**	**0.0000**	**0.7029**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.5000e-004	2.5900e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.7040	0.7040	2.0000e-005	0.0000	0.7044
Total	**3.4000e-004**	**2.5000e-004**	**2.5900e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.7040**	**0.7040**	**2.0000e-005**	**0.0000**	**0.7044**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0418					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	4.1500e-003	5.0700e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.7002	0.7002	1.1000e-004	0.0000	0.7029
Total	**0.0423**	**4.1500e-003**	**5.0700e-003**	**1.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**0.7002**	**0.7002**	**1.1000e-004**	**0.0000**	**0.7029**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.5000e-004	2.5900e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.7040	0.7040	2.0000e-005	0.0000	0.7044
Total	**3.4000e-004**	**2.5000e-004**	**2.5900e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.7040**	**0.7040**	**2.0000e-005**	**0.0000**	**0.7044**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1100e-003	0.0249	0.0331	5.0000e-005		1.2900e-003	1.2900e-003		1.2800e-003	1.2800e-003	0.0000	4.5970	4.5970	6.7000e-004	0.0000	4.6137
Total	**0.2773**	**0.0249**	**0.0331**	**5.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**4.5970**	**4.5970**	**6.7000e-004**	**0.0000**	**4.6137**

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	2.0900e-003	1.4500e-003	0.0155	5.0000e-005	5.3900e-003	3.0000e-005	5.4200e-003	1.4300e-003	3.0000e-005	1.4600e-003	0.0000	4.4612	4.4612	1.0000e-004	0.0000	4.4637
Total	**2.0900e-003**	**1.4500e-003**	**0.0155**	**5.0000e-005**	**5.3900e-003**	**3.0000e-005**	**5.4200e-003**	**1.4300e-003**	**3.0000e-005**	**1.4600e-003**	**0.0000**	**4.4612**	**4.4612**	**1.0000e-004**	**0.0000**	**4.4637**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2742					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	3.1100e-003	0.0249	0.0331	5.0000e-005		1.2900e-003	1.2900e-003		1.2800e-003	1.2800e-003	0.0000	4.5970	4.5970	6.7000e-004	0.0000	4.6137
Total	**0.2773**	**0.0249**	**0.0331**	**5.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**4.5970**	**4.5970**	**6.7000e-004**	**0.0000**	**4.6137**

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	2.0900e-003	1.4500e-003	0.0155	5.0000e-005	5.3900e-003	3.0000e-005	5.4200e-003	1.4300e-003	3.0000e-005	1.4600e-003	0.0000	4.4612	4.4612	1.0000e-004	0.0000	4.4637
Total	**2.0900e-003**	**1.4500e-003**	**0.0155**	**5.0000e-005**	**5.3900e-003**	**3.0000e-005**	**5.4200e-003**	**1.4300e-003**	**3.0000e-005**	**1.4600e-003**	**0.0000**	**4.4612**	**4.4612**	**1.0000e-004**	**0.0000**	**4.4637**

3.8 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1300e-003	0.0311	0.0382	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.0030	5.0030	1.6200e-003	0.0000	5.0435
Total	**3.1300e-003**	**0.0311**	**0.0382**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**5.0030**	**5.0030**	**1.6200e-003**	**0.0000**	**5.0435**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3741	0.3741	1.0000e-005	0.0000	0.3743
Total	**1.8000e-004**	**1.3000e-004**	**1.3800e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3741**	**0.3741**	**1.0000e-005**	**0.0000**	**0.3743**

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	3.1300e-003	0.0311	0.0382	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.0030	5.0030	1.6200e-003	0.0000	5.0435
Total	**3.1300e-003**	**0.0311**	**0.0382**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**5.0030**	**5.0030**	**1.6200e-003**	**0.0000**	**5.0435**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3741	0.3741	1.0000e-005	0.0000	0.3743
Total	**1.8000e-004**	**1.3000e-004**	**1.3800e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3741**	**0.3741**	**1.0000e-005**	**0.0000**	**0.3743**

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	0.0833	0.3532	0.9691	3.3500e-003	0.3092	2.8500e-003	0.3120	0.0828	2.6600e-003	0.0854	0.0000	306.9343	306.9343	0.0104	0.0000	307.1934
Unmitigated	0.0833	0.3532	0.9691	3.3500e-003	0.3092	2.8500e-003	0.3120	0.0828	2.6600e-003	0.0854	0.0000	306.9343	306.9343	0.0104	0.0000	307.1934

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	316.32	343.68	291.36	731,367	731,367
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	55.15	12.30	5.25	100,131	100,131
Parking Lot	0.00	0.00	0.00		
Total	371.47	355.98	296.61	831,497	831,497

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low 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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
General Office Building	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Parking Lot	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

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	50.7929	50.7929	5.0800e-003	1.0500e-003	51.2330
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.7929	50.7929	5.0800e-003	1.0500e-003	51.2330
NaturalGas Mitigated	3.0800e-003	0.0266	0.0130	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4970	30.4970	5.8000e-004	5.6000e-004	30.6783
NaturalGas Unmitigated	3.0800e-003	0.0266	0.0130	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	30.4970	30.4970	5.8000e-004	5.6000e-004	30.6783

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 Low Rise	489545	2.6400e-003	0.0226	9.6000e-003	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.1240	26.1240	5.0000e-004	4.8000e-004	26.2792
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	81948.2	4.4000e-004	4.0200e-003	3.3700e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3731	4.3731	8.0000e-005	8.0000e-005	4.3991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.0800e-003**	**0.0266**	**0.0130**	**1.6000e-004**		**2.1300e-003**	**2.1300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**30.4970**	**30.4970**	**5.8000e-004**	**5.6000e-004**	**30.6783**

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 Low Rise	489545	2.6400e-003	0.0226	9.6000e-003	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.1240	26.1240	5.0000e-004	4.8000e-004	26.2792
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	81948.2	4.4000e-004	4.0200e-003	3.3700e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3731	4.3731	8.0000e-005	8.0000e-005	4.3991
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.0800e-003**	**0.0266**	**0.0130**	**1.6000e-004**		**2.1300e-003**	**2.1300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**30.4970**	**30.4970**	**5.8000e-004**	**5.6000e-004**	**30.6783**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	208742	27.4584	2.7500e-003	5.7000e-004	27.6963
Enclosed Parking Structure	86847.4	11.4241	1.1400e-003	2.4000e-004	11.5231
General Office Building	89257	11.7410	1.1700e-003	2.4000e-004	11.8428
Parking Lot	1288	0.1694	2.0000e-005	0.0000	0.1709
Total		**50.7929**	**5.0800e-003**	**1.0500e-003**	**51.2330**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	208742	27.4584	2.7500e-003	5.7000e-004	27.6963
Enclosed Parking Structure	86847.4	11.4241	1.1400e-003	2.4000e-004	11.5231
General Office Building	89257	11.7410	1.1700e-003	2.4000e-004	11.8428
Parking Lot	1288	0.1694	2.0000e-005	0.0000	0.1709
Total		**50.7929**	**5.0800e-003**	**1.0500e-003**	**51.2330**

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	0.2220	5.7700e-003	0.3577	3.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	2.5001	2.5001	6.0000e-004	4.0000e-005	2.5256
Unmitigated	0.2220	5.7700e-003	0.3577	3.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	2.5001	2.5001	6.0000e-004	4.0000e-005	2.5256

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	0.0316					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9000e-004	1.6600e-003	7.0000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9175	1.9175	4.0000e-005	4.0000e-005	1.9289
Landscaping	0.0108	4.1200e-003	0.3570	2.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	0.5826	0.5826	5.6000e-004	0.0000	0.5967
Total	**0.2220**	**5.7800e-003**	**0.3577**	**3.0000e-005**		**2.1000e-003**	**2.1000e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**2.5001**	**2.5001**	**6.0000e-004**	**4.0000e-005**	**2.5256**

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	0.0316					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9000e-004	1.6600e-003	7.0000e-004	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9175	1.9175	4.0000e-005	4.0000e-005	1.9289
Landscaping	0.0108	4.1200e-003	0.3570	2.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	0.5826	0.5826	5.6000e-004	0.0000	0.5967
Total	**0.2220**	**5.7800e-003**	**0.3577**	**3.0000e-005**		**2.1000e-003**	**2.1000e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**2.5001**	**2.5001**	**6.0000e-004**	**4.0000e-005**	**2.5256**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.4379	5.2900e-003	3.1700e-003	6.5158
Unmitigated	5.4379	5.2900e-003	3.1700e-003	6.5158

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.12739 / 1.97162	4.2402	4.1200e-003	2.4700e-003	5.0796
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	1.1977	1.1700e-003	7.0000e-004	1.4362
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.4379**	**5.2900e-003**	**3.1700e-003**	**6.5158**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.12739 / 1.97162	4.2402	4.1200e-003	2.4700e-003	5.0796
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.888669 / 0.544668	1.1977	1.1700e-003	7.0000e-004	1.4362
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.4379**	**5.2900e-003**	**3.1700e-003**	**6.5158**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.4260	0.3207	0.0000	13.4426
Unmitigated	5.4260	0.3207	0.0000	13.4426

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	22.08	4.4820	0.2649	0.0000	11.1041
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.4260**	**0.3207**	**0.0000**	**13.4426**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	22.08	4.4820	0.2649	0.0000	11.1041
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	4.65	0.9439	0.0558	0.0000	2.3385
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.4260**	**0.3207**	**0.0000**	**13.4426**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 5 : Existing Use, CalEEMod Output

3035 El Camino Real, Santa Clara - Existing - Santa Clara County, Annual

3035 El Camino Real, Santa Clara - Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	5.20	1000sqft	0.12	5,200.00	0
Parking Lot	76.69	1000sqft	1.76	76,692.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Existing land use

Construction Phase - Existing land use

Off-road Equipment - Existing land use

Grading -

Energy Use - Historic energy data

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00

tblConstructionPhase	PhaseEndDate	4/30/2020	4/29/2020
tblEnergyUse	LightingElect	3.80	3.08
tblEnergyUse	LightingElect	0.88	0.35
tblEnergyUse	T24E	1.93	1.48
tblEnergyUse	T24NG	22.58	19.71
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0272	0.0272	0.0000	0.0000	0.0272
Maximum	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0272**	**0.0272**	**0.0000**	**0.0000**	**0.0272**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0272	0.0272	0.0000	0.0000	0.0272
Maximum	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0272**	**0.0272**	**0.0000**	**0.0000**	**0.0272**

	ROG	NOx	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	**4-1-2020**	**6-30-2020**	0.0000	0.0000
		Highest	0.0000	0.0000

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	0.0297	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4600e-003	1.4600e-003	0.0000	0.0000	1.5600e-003
Energy	7.4000e-004	6.7200e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	27.6243	27.6243	1.0600e-003	3.2000e-004	27.7473
Mobile	0.0215	0.0781	0.1796	5.0000e-004	0.0424	4.6000e-004	0.0429	0.0114	4.3000e-004	0.0118	0.0000	46.0381	46.0381	1.9300e-003	0.0000	46.0865
Waste						0.0000	0.0000		0.0000	0.0000	4.0314	0.0000	4.0314	0.2383	0.0000	9.9876
Water						0.0000	0.0000		0.0000	0.0000	0.1552	1.0754	1.2306	0.0160	3.9000e-004	1.7455
Total	**0.0519**	**0.0848**	**0.1860**	**5.4000e-004**	**0.0424**	**9.7000e-004**	**0.0434**	**0.0114**	**9.4000e-004**	**0.0123**	**4.1866**	**74.7392**	**78.9258**	**0.2572**	**7.1000e-004**	**85.5685**

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	0.0297	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4600e-003	1.4600e-003	0.0000	0.0000	1.5600e-003
Energy	7.4000e-004	6.7200e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	27.6243	27.6243	1.0600e-003	3.2000e-004	27.7473
Mobile	0.0215	0.0781	0.1796	5.0000e-004	0.0424	4.6000e-004	0.0429	0.0114	4.3000e-004	0.0118	0.0000	46.0381	46.0381	1.9300e-003	0.0000	46.0865
Waste						0.0000	0.0000		0.0000	0.0000	4.0314	0.0000	4.0314	0.2383	0.0000	9.9876
Water						0.0000	0.0000		0.0000	0.0000	0.1552	1.0754	1.2306	0.0160	3.9000e-004	1.7455
Total	**0.0519**	**0.0848**	**0.1860**	**5.4000e-004**	**0.0424**	**9.7000e-004**	**0.0434**	**0.0114**	**9.4000e-004**	**0.0123**	**4.1866**	**74.7392**	**78.9258**	**0.2572**	**7.1000e-004**	**85.5685**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/29/2020	4/29/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.76

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	0.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0272	0.0272	0.0000	0.0000	0.0272
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0272**	**0.0272**	**0.0000**	**0.0000**	**0.0272**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0272	0.0272	0.0000	0.0000	0.0272
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0272**	**0.0272**	**0.0000**	**0.0000**	**0.0272**

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	0.0215	0.0781	0.1796	5.0000e-004	0.0424	4.6000e-004	0.0429	0.0114	4.3000e-004	0.0118	0.0000	46.0381	46.0381	1.9300e-003	0.0000	46.0865
Unmitigated	0.0215	0.0781	0.1796	5.0000e-004	0.0424	4.6000e-004	0.0429	0.0114	4.3000e-004	0.0118	0.0000	46.0381	46.0381	1.9300e-003	0.0000	46.0865

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	123.34	123.34	61.78	114,112	114,112
Parking Lot	0.00	0.00	0.00		
Total	123.34	123.34	61.78	114,112	114,112

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28

Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Parking Lot	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.3040	20.3040	9.2000e-004	1.9000e-004	20.3836
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.3040	20.3040	9.2000e-004	1.9000e-004	20.3836
NaturalGas Mitigated	7.4000e-004	6.7200e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3202	7.3202	1.4000e-004	1.3000e-004	7.3637
NaturalGas Unmitigated	7.4000e-004	6.7200e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3202	7.3202	1.4000e-004	1.3000e-004	7.3637

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					
Automobile Care Center	137176	7.4000e-004	6.7200e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3202	7.3202	1.4000e-004	1.3000e-004	7.3637
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.4000e-004**	**6.7200e-003**	**5.6500e-003**	**4.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**7.3202**	**7.3202**	**1.4000e-004**	**1.3000e-004**	**7.3637**

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					
Automobile Care Center	137176	7.4000e-004	6.7200e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3202	7.3202	1.4000e-004	1.3000e-004	7.3637
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.4000e-004**	**6.7200e-003**	**5.6500e-003**	**4.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**7.3202**	**7.3202**	**1.4000e-004**	**1.3000e-004**	**7.3637**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	42952	12.4952	5.6000e-004	1.2000e-004	12.5442
Parking Lot	26842.5	7.8088	3.5000e-004	7.0000e-005	7.8394
Total		**20.3040**	**9.1000e-004**	**1.9000e-004**	**20.3836**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	42952	12.4952	5.6000e-004	1.2000e-004	12.5442
Parking Lot	26842.5	7.8088	3.5000e-004	7.0000e-005	7.8394
Total		**20.3040**	**9.1000e-004**	**1.9000e-004**	**20.3836**

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	0.0297	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4600e-003	1.4600e-003	0.0000	0.0000	1.5600e-003
Unmitigated	0.0297	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4600e-003	1.4600e-003	0.0000	0.0000	1.5600e-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	4.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4600e-003	1.4600e-003	0.0000	0.0000	1.5600e-003
Total	**0.0297**	**1.0000e-005**	**7.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4600e-003**	**1.4600e-003**	**0.0000**	**0.0000**	**1.5600e-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	4.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4600e-003	1.4600e-003	0.0000	0.0000	1.5600e-003
Total	**0.0297**	**1.0000e-005**	**7.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4600e-003**	**1.4600e-003**	**0.0000**	**0.0000**	**1.5600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.2306	0.0160	3.9000e-004	1.7455
Unmitigated	1.2306	0.0160	3.9000e-004	1.7455

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.489222 / 0.299846	1.2306	0.0160	3.9000e-004	1.7455
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.2306**	**0.0160**	**3.9000e-004**	**1.7455**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Automobile Care Center	0.489222 / 0.299846	1.2306	0.0160	3.9000e-004	1.7455
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.2306**	**0.0160**	**3.9000e-004**	**1.7455**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.0314	0.2383	0.0000	9.9876
Unmitigated	4.0314	0.2383	0.0000	9.9876

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	19.86	4.0314	0.2383	0.0000	9.9876
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		**4.0314**	**0.2383**	**0.0000**	**9.9876**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	19.86	4.0314	0.2383	0.0000	9.9876
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**4.0314**	**0.2383**	**0.0000**	**9.9876**

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