APPENDIX A

Construction Air Quality Assessment

PRESENTATION HIGH SCHOOL MASTER PLAN

CONSTRUCTION AIR QUALITY ASSESSMENT

San Jose, California

March 28, 2018

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Introduction

The purpose of this report is to address construction air quality impacts associated with the phased implementation of the proposed Presentation High School Master Plan. The project would demolish building and construct new facilities in four separate construction phases. Air pollutant emissions associated with these construction phases were evaluated by predicting construction period emission of toxic air contaminants (TACs) and fine particulate matter (PM2.5), modeling the exposure of sensitive receptors and computing the health risks. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).

Project Description

Presentation High School is a private school for girls located on an approximately 8.8-acre site at 2281 Plummer Avenue in suburban San José. The campus is bordered by Booksin Avenue on the west and Plummer Avenue on the east. The first phase of the Master Plan proposes to demolish the existing student center and chapel buildings and a portion of the existing main classroom building, and construct a new 14,330-square foot, two-level multi-purpose building and a new 15,822-square foot, two-level student union building. Subsequent phases would include the demolition the remainder of the existing main classroom building and construction of a new facilities building, a new science/arts building, a new chapel, a new classroom building, and a new administration/classroom building. As buildings are constructed, parking areas would be reconfigured and expanded, and a new plaza, courtyard areas, and landscaping would be installed. The enrollment at the school would increase from 750 students to 850 students, and the faculty would increase from 60 to 100.

The current schedule shows construction occurring in four phases over a 16-year period, beginning in 2020. For the purposes of this evaluation, construction was assumed to begin in 2020 and occur continuously from phase to phase. In this scenario, all construction would be completed by 2026. This is a worst-case scenario, based on health risk assessment methodologies that account for exposure periods and age sensitivity.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

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

ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

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

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

Sensitive Receptors

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

[1] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

Christopher School (kindergarten through 8th grade) immediately northwest of the project site. The Presentation High School includes students that are considered sensitive receptors, however, the student population does not include infants or small children and this is accounted in the health risk assessment.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the federal standards.

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

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

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

State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.[3] In addition

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

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

to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

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

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

Bay Area Air Quality Management District (BAAQMD)

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

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

The BAAQMD California Environmental Quality Act (*CEQA) Air Quality Guidelines*[4] were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within

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

the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions.

Significance Thresholds

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. In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The City of San Jose applies these thresholds to CEQA evaluations of projects that emit TACs and PM2.5. 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 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 hazard index (from all local sources) greater than 10.0.
- An incremental increase of more than 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.

Project Community Risk Impacts

Community risk impacts associated with the project would occur primarily from construction activity. When operating, the project may generate automobile traffic and infrequent truck traffic. These emissions are anticipated to result in fairly low impacts in terms of TAC or PM2.5 exposure and were not evaluated. Cumulative impacts were evaluated with respect to the project construction and effects from local high-volume roadways and stationary sources permitted by BAAQMD.

Project Construction Activity

The project would be constructed in four phases, beginning in 2020 with completion scheduled for 2036. A more aggressive construction schedule would result in higher impacts since sensitive receptors that are infants and children (most sensitive type) would be exposed to higher emissions during times in their lives when they are most sensitive. As a credible worst-case assessment, emission from the project were assumed to occur with no breaks between phases from 2020 through 2026.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust 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 $PM_{2.5}$.[5]

The closest sensitive receptors to the project site are residences located adjacent to the campus boundaries, as well as students that attend the school. 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 Emissions

Construction activity is anticipated to include demolition, grading and site preparation, building construction, and paving. 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 CalEEMod defaults for each project phase, where inputs to the model were the project type and size (in terms of square feet) and the size of the building to be demolished.

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. The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod. The CalEEMod inputs along with the construction emissions are summarized in Table 1.

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

Table 1 CalEEMod Construction Modeling Scenarios

Phase	Year	Modeling Description Land Use Type, Size, Demolition Quantity	Unmitigated Emissions	
			PM10 exhaust (tons)	PM2.5 Fugitive (tons)
1	2020-21	High School, new = 28,750 sf, Demo = 28,749 sf	0.0304	0.0020
2	2022-23	High School, new = 26,091 sf, Demo = 29,171 sf	0.0217	0.0027
3	2024	High School, new = 26,000 sf, Demo = 42,555 sf	0.0165	0.0027
4	2025	High School, new = 4,198 sf, Demo = 0 sf	0.0141	0.0005

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at existing sensitive receptors (residences and school) in the vicinity of the project. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[6]

Annual concentrations were computed for the four construction phases during the years 2020-2025. The AERMOD modeling of these emissions utilized ten area sources to represent the on-site emissions, with five areas for exhaust emissions and five areas 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 sources. 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 sources. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m., when the majority of construction activity would occur.

The modeling used a 5-year meteorological data set (2006 – 2010) from the Mineta San Jose International Airport meteorological station prepared for use with the AERMOD model by the BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2020 – 2025 period were calculated using the model. DPM and PM2.5 concentrations were calculated at existing off-site sensitive receptors (nearby residences) and at receptors placed within the Presentation High School and St. Christopher School areas using a grid of receptors with 7 meter (23 feet) spacing to represent locations where school student exposures could occur during construction activities. Receptor heights of 1.5 meters (4.9 feet) were used to represent the breathing height of nearby residences and school students. Figure 1 shows the project site, the area sources used for modeling each project phase, and off-site and on-site receptor locations where health impacts were evaluated.

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

Estimated Cancer Risk and Hazards

Figure 1 shows the locations where the maximum-modeled DPM and $PM_{2.5}$ concentrations occurred. Two locations or receptors were identified for maximum impacts: (1) a residence and (2) the on-site at the Presentation High School (where students grade 9 through 12 attend). The maximum annual modeled DPM concentrations at each of these receptors were used to compute the maximum increased cancer risk. The receptors (or locations of sensitive land uses) where the highest impacts occur is referred to as the maximally exposed individual (MEI). The impacts in terms of cancer risk, hazards and PM2.5 are computed only at the MEI 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*. In calculating cancer risks for the residential MEI exposures, 3rd trimester exposures were assumed to occur during the first year of construction, as were infant and child exposures. Child exposures were assumed to occur at the Presentation High School MEI receptor. Child exposures were also assumed for students at the St. Christopher School.

Results of this assessment are shown in Table 2. The maximum increased cancer risk would be 17.4 in one million, assuming infant/child exposure (at the Residential MEI) and 0.3 in one million for an adult exposure. The maximum cancer risk at the on-site Presentation High School MEI would be 7.9 chances per million. The maximum school child cancer risk at the St. Christopher School would be 1.6 chances per million. The maximum residential excess cancer risk would be above the significance threshold of 10.0 in one million.

Estimated Annual $PM_{2.5}$ Concentration

The maximum-modeled annual $PM_{2.5}$ concentration, which is based on combined exhaust and fugitive dust emissions, at an off-site residential receptor was 0.10 $\mu g/m^3$. The maximum-modeled annual $PM_{2.5}$ concentration at an on-site Presentation High School student receptor was 0.20 $\mu g/m^3$. These maximum annual $PM_{2.5}$ concentrations would be below the BAAQMD significance threshold of greater than 0.3 $\mu g/m^3$. The locations of the receptors with the maximum $PM_{2.5}$ concentrations would be the same as where the maximum cancer risks would occur and are shown in Figure 1.

Non-Cancer Hazards

The maximum modeled annual diesel particulate matter or DPM concentration (i.e., from construction exhaust) was 0.1154 $\mu g/m^3$. The maximum computed HI based on this DPM concentration is 0.02, which is much lower than the BAAQMD significance criterion of a Hazard Index or HI greater than 1.0.

Figure 1 Project Site, Modeled Construction Areas and Receptors and MEI Locations

Areas Used for Construction Modeling

- Phase 1 Construction Areas
- Phase 2 Construction Area
- Phase 3 Construction Area
- Phase 4 Construction Area
- Off-Site Residential Receptor Locations
- Residential MEI Location
- Presentation High School Student Receptor Locations
- Presentation High School MEI Location
- St. Christopher School Student Receptor Locations

Cumulative Impact on Construction MEI

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.

Contributing sources of TAC and PM2.5 emissions were considered in a cumulative analysis. These sources and the influence area are shown in Figure 2. Cumulative sources included local high-volume roadways (i.e., Curtner Ave.), and one permitted stationary source that is a permitted diesel generator operated by the school. The project impacts along with impacts from cumulative sources are shown in Table 2.

Figure 2 Project Site, 1,000 ft Influence Area and Identified Sources

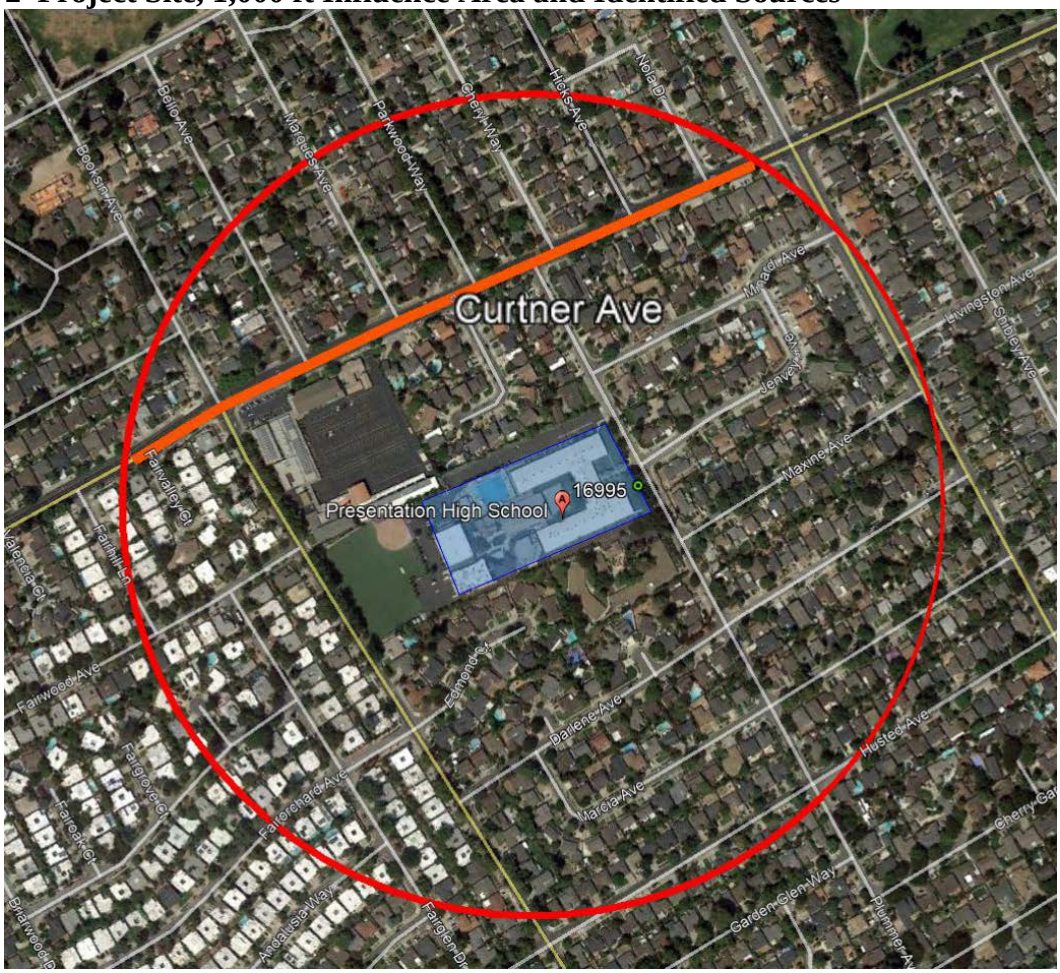


Table 2 Impacts from Combined Sources at Construction MEI

Source	Cancer Risk (per million)	$PM_{2.5}$ concentration ($\mu g/m^3$)	Hazard Index
Project Construction – Unmitigated Resident MEI – Unmitigated School MEI	 **17.4** (infant) 7.2 (child)	 0.10 0.20	 0.02 0.02
Project Construction – Mitigated Resident MEI	1.6 (infant)	0.01	0.002
Local Roadway – Curtner Ave (850 feet from Res. MEI) with 30,000 ADT	1.5 Res.	0.05 Res.	0.00 Res.
Stationary Source – Plant 16995 – Diesel Generator at ~150 feet from Res. MEI	10.0 Res.	0.0 Res.	0.1 Res.
Combined Sources at Residential MEI - Unmitigated Construction - Mitigated Construction	 28.9 13.1	 0.15 0.06	 0.02 0.00
BAAQMD Threshold – Single Source	*10.0*	*0.3*	*1.0*
BAAQMD Threshold – Combined Sources	*100*	*0.8*	*10.0*
Significant?	*Yes*	*No*	*No*

Local High-Volume Roadways

For local roadways, BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Two adjustments were made to the cancer risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates and (2) adjustment of cancer risk to reflect new OEHHA guidance (see *Attachment 1*).

The calculator uses EMFAC2011 emission rates for the year 2014. Overall, emission rates will decrease by the time the project is constructed and occupied. The project is not likely to be occupied prior to at least 2018. In addition, a new version of the emissions factor model, EMFAC2014 is available. This version predicts lower emission rates. An adjustment factor of 0.5 was developed by comparing emission rates of total organic gases (TOG) for running exhaust and running losses developed using EMFAC2011 for year 2014 and those from EMFAC2014 for year 2018.

The predicted cancer risk was then adjusted using a factor of 1.3744 to account for new OEHHA guidance. This factor was provided by BAAQMD for use with their CEQA screening tools that are used to predict cancer risk.[3]

The calculator inputs include County, roadway orientation, side of the roadway the receptor is located, distance from the roadway edge, and average daily traffic (ADT) volume. The ADT on Curtner Ave were obtained from the City of San Jose website and rounded upwards. The reported volume for the link west of Almaden Expressway (closest to project site) is 26,806 vehicles per day. Screening roadway calculations are contained in Attachment 3.

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. The 2012 estimated risk values reported in the tool by BAAQMD were adjusted using a factor of 1.3744 to account for new OEHHA guidance.

Summary of Impacts

The project would have a *significant* impact with respect to community risk caused by project construction activities since the project itself, a single source, would result in cancer risk that exceeds 10.0 chances per million. Other single source impacts and cumulative source impacts would be below the significance thresholds. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this impact to a level of less than significant.*

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

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

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

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

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

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

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

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

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

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

Mitigation Measure AQ-2: **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 45 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 and operating on the site for more than two days shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent.

  Note that the construction contractor could use other measures to minimize construction period DPM emission to reduce the estimated cancer risk below the thresholds. The use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters[7] 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-1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure AQ-2* would reduce on-site diesel exhaust emissions by 80 to 90 percent. With mitigation, the computed maximum increased lifetime residential cancer risk from construction, assuming infant exposure at the Residential MEI, would be 1.6 in one million if Tier 4 equipment is used, as described above. The cancer risk would be below the BAAQMD threshold of 10 per 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.*

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

Attachments

The technical information developed to support the analysis presented in this report is contained in the following attachments:

Attachment 1: Health Impact Methodology
Attachment 2: Construction Health Risk Assessment
Attachment 3: Cumulative Source Risk Screening Calculations

Attachment 1: Health Impact Evaluation 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.[8] 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.[9] 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.[10] 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).

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)

[8] 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.
[9] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics.* July 23.
[10] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. January 2016.

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-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: Construction Health Risk Assessment

Presentation High School, San Jose, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation

Construction Year	Activity	Modeled 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	Phase 1	0.0275	DPM_A1	55.0	0.01674	2.11E-03	2,569	8.21E-07
	Phase 1	0.0029	DPM_A2	5.8	0.00177	2.23E-04	271	8.21E-07
		0.0304		60.8	0.01851	2.33E-03	2,840	
2021	None	-	-	-	-	-	-	-
2022	Phase 2	0.0217	DPM	43.4	0.01321	1.66E-03	3,325	5.01E-07
2023	None	-	-	-	-	-	-	-
2024	Phase 3	0.0165	DPM	33.0	0.01005	1.27E-03	3,822	3.31E-07
2025	Phase 4	0.0141	DPM	28.2	0.00858	1.08E-03	837	1.29E-06
Total		***0.083***		***165.4***				

Operation Hours

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

PM2.5 Fugitive Dust Emissions for Modeling - Without Mitigation

Construction Year	Activity	Modeled 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	Phase 1	FUG_A1	0.0018	3.6	0.00110	1.39E-04	2,569	5.40E-08
	Phase 1	FUG_A2	0.0002	0.4	0.00012	1.46E-05	271	5.40E-08
			0.0020	4.0	1.22E-03	1.53E-04	2,840	
2021	None	-	-	-	-	-	-	-
2022	Phase 2	FUG	0.0027	5.4	0.00164	2.07E-04	3,325	6.23E-08
2023	None	-	-	-	-	-	-	-
2024	Phase 3	FUG	0.0027	5.4	0.00164	2.07E-04	3,822	5.42E-08
2025	Phase 4	FUG	0.0005	1.0	0.00030	3.84E-05	837	4.58E-08
Total			***0.008***	***15.8***				

Operation Hours

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

DPM Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	Modeled 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	Phase 1	0.0024	DPM_A1	4.9	0.00149	1.87E-04	2,569	7.29E-08
	Phase 1	0.0003	DPM_A2	0.5	0.00016	1.98E-05	271	7.29E-08
		0.0027		5.4	0.00164	2.07E-04	2,840	
2021	None	-	-	-	-	-	-	-
2022	Phase 2	0.0023	DPM	4.6	0.00140	1.76E-04	3,325	5.31E-08
2023	None	-	-	-	-	-	-	-
2024	Phase 3	0.0020	DPM	4.0	0.00122	1.53E-04	3,822	4.01E-08
2025	Phase 4	0.0018	DPM	3.6	0.00110	1.38E-04	837	1.65E-07
Total		***0.009***		***17.6***				

Operation Hours

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

PM2.5 Fugitive Dust Emissions for Modeling - With Mitigation

Construction Year	Activity	Modeled 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	Phase 1	FUG_A1	0.0005	1.1	0.00033	4.16E-05	2,569	1.62E-08
	Phase 1	FUG_A2	0.0001	0.1	0.00003	4.39E-06	271	1.62E-08
			0.0006	1.2	3.65E-04	4.60E-05	2,840	
2021	None	-	-	-	-	-	-	-
2022	Phase 2	FUG	0.0008	1.6	0.00049	6.14E-05	3,325	1.85E-08
2023	None	-	-	-	-	-	-	-
2024	Phase 3	FUG	0.0008	1.6	0.00049	6.14E-05	3,822	1.61E-08
2025	Phase 4	FUG	0.0002	0.4	0.00012	1.53E-05	837	1.83E-08
Total			***0.002***	***4.8***				

Operation Hours

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

Presentation High School, San Jose, CA
Health Impact Summaries

Maximum Impacts from Construction at Residential MEI Location - Unmitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2020	0.0936	0.0073	16.64	0.27	0.019	0.10
2021	0.0000	0.0000	0.00	0.00	0.000	0.00
2022	0.0076	0.0060	0.22	0.02	0.002	0.01
2023	0.0000	0.0000	0.00	0.00	0.000	0.00
2024	0.0065	0.0010	0.19	0.02	0.001	0.01
2025	0.0130	0.0005	0.37	0.04	0.003	0.01
Total			**17.4**	**0.3**		
Maximum	0.0936	0.0073	-	-	**0.02**	**0.10**

Maximum Impacts from Construction at Residential MEI Location - Mitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2020	0.0083	0.0022	1.48	0.02	0.002	0.01
2021	0.0083	0.0000	0.00	0.00	0.002	0.00
2022	0.0000	0.0003	0.02	0.00	0.000	0.00
2023	0.0008	0.0000	0.00	0.00	0.000	0.00
2024	0.0000	0.0003	0.02	0.00	0.000	0.00
2025	0.0008	0.0002	0.05	0.00	0.000	0.00
Total			**1.6**	**0.03**		
Maximum	0.0083	0.0022	-	-	**0.002**	**0.01**

Maximum Impacts at Presentation High School MEI Location - Unmitigated

	UNMITIGATED				
Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Child Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2020	0.1154	-	3.0	0.02	0.20
2021	0.0000	-	0.0	0.00	0.00
2022	0.0351	-	0.9	0.01	0.15
2023	0.0000	-	0.0	0.00	0.00
2024	0.0385	-	1.0	0.01	0.12
2025	0.0888	-	2.3	0.02	0.11
Total	-	-	**7.2**	-	-
Maximum	**0.1154**	-	-	**0.02**	**0.20**

Presentation High School, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
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				Adult - Exposure Information					
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2020	0.0936	10	1.27	2020	0.0936	-	-		
1	1	0 - 1	2020	0.0936	10	15.37	2020	0.0936	1	0.27	0.0073	0.101
2	1	1 - 2	2021	0.0000	10	0.00	2021	0.0000	1	0.00	0.0000	0.000
3	1	2 - 3	2022	0.0076	3	0.22	2022	0.0076	1	0.02	0.0060	0.014
4	1	3 - 4	2023	0.0000	3	0.00	2023	0.0000	1	0.00	0.0000	0.000
5	1	4 - 5	2024	0.0065	3	0.19	2024	0.0065	1	0.02	0.0010	0.008
6	1	5 - 6	2025	0.0130	3	0.37	2025	0.0130	1	0.04	0.0005	0.014
7	1	6 - 7	0	0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8	0	0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9	0	0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10	0	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						**17.42**				**0.3**		

* Third trimester of pregnancy

Presentation High School, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
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				Adult - Exposure Information					
				DPM Conc (ug/m3)	Age			Modeled DPM Conc (ug/m3)	Age			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2020	0.0083	10	0.11	2020	0.0083	-	-		
1	1	0 - 1	2020	0.0083	10	1.36	2020	0.0083	1	0.02	0.0022	0.011
2	1	1 - 2	2021	0.0000	10	0.00	2021	0.0000	1	0.00	0.0000	0.000
3	1	2 - 3	2022	0.0008	3	0.02	2022	0.0008	1	0.00	0.0003	0.001
4	1	3 - 4	2023	0.0000	3	0.00	2023	0.0000	1	0.00	0.0000	0.000
5	1	4 - 5	2024	0.0008	3	0.02	2024	0.0008	1	0.00	0.0003	0.001
6	1	5 - 6	2025	0.0017	3	0.05	2025	0.0017	1	0.00	0.0002	0.002
7	1	6 - 7	0	0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8	0	0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9	0	0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10	0	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						**1.57**				**0.0**		

* Third trimester of pregnancy

Presentation High School, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
On-Site Presentation High School Receptors - 1.5 meters - Child Exposures

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

		Student - Exposure Information					
Exposure Year	**Exposure Duration (years)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age* Sensitivity Factor**	**Student Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
1	1	2020	0.1154	3	3.0	-	0.202
4	1	2021	0.0000	3	0.00	-	0.000
5	1	2022	0.0351	3	0.91	-	0.152
6	1	2023	0.0000	3	0.00	-	0.000
7	1	2024	0.0385	3	0.99	-	0.119
8	1	2025	0.0888	3	2.30	-	0.108
					7.2		

* Students assumed to be from 2 to 16 years of age

Presentation High School, San Jose, CA
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
St Christopher School Student Receptors - 1.5 meters - Child Exposures

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

		Student - Exposure Information					
Exposure Year	**Exposure Duration (years)**	**DPM Conc (ug/m3) Year**	**Annual**	**Age* Sensitivity Factor**	**Student Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
1	1	2020	0.0414	3	1.2	0.0038	0.045
4	1	2021	0.0000	3	0.00	0.0000	0.000
5	1	2022	0.0047	3	0.13	0.0006	0.005
6	1	2023	0.0000	3	0.00	0.0000	0.000
7	1	2024	0.0036	3	0.10	0.0006	0.004
8	1	2025	0.0058	3	0.17	0.0002	0.006
					1.6		

* Students assumed to be from 2 to 16 years of age

Presentation HS - Phase 1 Construction - Santa Clara County, Annual

Presentation HS - Phase 1 Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	28.75	1000sqft	0.66	28,749.00	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)	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 rate

Land Use -

Construction Phase - use default schedule

Off-road Equipment -

Grading - added minor import/export

Demolition - Based on building and demo information provided

Trips and VMT - For on- and near-site travel

Construction Off-road Equipment Mitigation - Tier 4 interim (>50hp) and BMPs

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	1,000.00
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	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

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	0.2027	0.5497	0.4515	7.3000e-004	9.0800e-003	0.0304	0.0395	1.7700e-003	0.0281	0.0299	0.0000	64.3212	64.3212	0.0187	0.0000	64.7880
Maximum	**0.2027**	**0.5497**	**0.4515**	**7.3000e-004**	**9.0800e-003**	**0.0304**	**0.0395**	**1.7700e-003**	**0.0281**	**0.0299**	**0.0000**	**64.3212**	**64.3212**	**0.0187**	**0.0000**	**64.7880**

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	0.1682	0.3095	0.4838	7.3000e-004	4.5800e-003	2.6600e-003	7.2300e-003	5.9000e-004	2.6500e-003	3.2400e-003	0.0000	64.3212	64.3212	0.0187	0.0000	64.7880
Maximum	**0.1682**	**0.3095**	**0.4838**	**7.3000e-004**	**4.5800e-003**	**2.6600e-003**	**7.2300e-003**	**5.9000e-004**	**2.6500e-003**	**3.2400e-003**	**0.0000**	**64.3212**	**64.3212**	**0.0187**	**0.0000**	**64.7880**

	ROG	NOx	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	**17.01**	**43.70**	**-7.15**	**0.00**	**49.56**	**91.25**	**81.69**	**66.67**	**90.57**	**89.15**	**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	**5-4-2020**	**8-3-2020**	0.3361	0.1830
2	**8-4-2020**	**9-30-2020**	0.2088	0.1053
		Highest	0.3361	0.1830

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	0.1273	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1000e-004	5.1000e-004	0.0000	0.0000	5.5000e-004
Energy	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	48.6732	48.6732	2.5800e-003	9.4000e-004	49.0179
Mobile	0.0703	0.3055	0.8582	3.0400e-003	0.2823	2.5600e-003	0.2849	0.0756	2.3900e-003	0.0780	0.0000	278.0248	278.0248	9.1700e-003	0.0000	278.2541
Waste						0.0000	0.0000		0.0000	0.0000	7.5878	0.0000	7.5878	0.4484	0.0000	18.7985
Water						0.0000	0.0000		0.0000	0.0000	0.3029	1.8097	2.1125	0.0313	7.7000e-004	3.1247
Total	**0.2004**	**0.3315**	**0.8803**	**3.2000e-003**	**0.2823**	**4.5300e-003**	**0.2869**	**0.0756**	**4.3600e-003**	**0.0799**	**7.8907**	**328.5081**	**336.3988**	**0.4915**	**1.7100e-003**	**349.1957**

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	0.1273	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1000e-004	5.1000e-004	0.0000	0.0000	5.5000e-004
Energy	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	48.6732	48.6732	2.5800e-003	9.4000e-004	49.0179
Mobile	0.0703	0.3055	0.8582	3.0400e-003	0.2823	2.5600e-003	0.2849	0.0756	2.3900e-003	0.0780	0.0000	278.0248	278.0248	9.1700e-003	0.0000	278.2541
Waste						0.0000	0.0000		0.0000	0.0000	7.5878	0.0000	7.5878	0.4484	0.0000	18.7985
Water						0.0000	0.0000		0.0000	0.0000	0.3029	1.8097	2.1125	0.0313	7.7000e-004	3.1247
Total	**0.2004**	**0.3315**	**0.8803**	**3.2000e-003**	**0.2823**	**4.5300e-003**	**0.2869**	**0.0756**	**4.3600e-003**	**0.0799**	**7.8907**	**328.5081**	**336.3988**	**0.4915**	**1.7100e-003**	**349.1957**

	ROG	NOx	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	5/4/2020	5/15/2020	5	10	
2	Site Preparation	Site Preparation	5/16/2020	5/18/2020	5	1	
3	Grading	Grading	5/19/2020	5/20/2020	5	2	
4	Building Construction	Building Construction	5/21/2020	10/7/2020	5	100	
5	Paving	Paving	10/8/2020	10/14/2020	5	5	
6	Architectural Coating	Architectural Coating	10/15/2020	10/21/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,124; Non-Residential Outdoor: 14,375; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	5.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	65.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	250.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	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 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					7.0500e-003	0.0000	7.0500e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0394	0.0381	6.0000e-005		2.3400e-003	2.3400e-003		2.2300e-003	2.2300e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284
Total	**4.3400e-003**	**0.0394**	**0.0381**	**6.0000e-005**	**7.0500e-003**	**2.3400e-003**	**9.3900e-003**	**1.0700e-003**	**2.2300e-003**	**3.3000e-003**	**0.0000**	**5.2038**	**5.2038**	**9.8000e-004**	**0.0000**	**5.2284**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	3.3500e-003	5.5000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.4221	0.4221	4.0000e-005	0.0000	0.4232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0407	0.0407	0.0000	0.0000	0.0407

Total	**1.3000e-004**	**3.3800e-003**	**8.8000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.4628**	**0.4628**	**4.0000e-005**	**0.0000**	**0.4639**

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					3.1700e-003	0.0000	3.1700e-003	2.4000e-004	0.0000	2.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0281	0.0388	6.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284
Total	**2.7000e-003**	**0.0281**	**0.0388**	**6.0000e-005**	**3.1700e-003**	**1.0400e-003**	**4.2100e-003**	**2.4000e-004**	**1.0400e-003**	**1.2800e-003**	**0.0000**	**5.2038**	**5.2038**	**9.8000e-004**	**0.0000**	**5.2284**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	3.3500e-003	5.5000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.4221	0.4221	4.0000e-005	0.0000	0.4232
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0407	0.0407	0.0000	0.0000	0.0407
Total	**1.3000e-004**	**3.3800e-003**	**8.8000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.4628**	**0.4628**	**4.0000e-005**	**0.0000**	**0.4639**

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	4.2200e-003	2.0500e-003	0.0000		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004	0.0000	0.4280	0.4280	1.4000e-004	0.0000	0.4314
Total	**3.4000e-004**	**4.2200e-003**	**2.0500e-003**	**0.0000**	**2.7000e-004**	**1.7000e-004**	**4.4000e-004**	**3.0000e-005**	**1.5000e-004**	**1.8000e-004**	**0.0000**	**0.4280**	**0.4280**	**1.4000e-004**	**0.0000**	**0.4314**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0300e-003	2.0300e-003	0.0000	0.0000	2.0400e-003
Total	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0300e-003**	**2.0300e-003**	**0.0000**	**0.0000**	**2.0400e-003**

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	1.5500e-003	2.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.4280	0.4280	1.4000e-004	0.0000	0.4314
Total	**9.0000e-005**	**1.5500e-003**	**2.9300e-003**	**0.0000**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.4280**	**0.4280**	**1.4000e-004**	**0.0000**	**0.4314**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0300e-003	2.0300e-003	0.0000	0.0000	2.0400e-003
Total	**0.0000**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0300e-003**	**2.0300e-003**	**0.0000**	**0.0000**	**2.0400e-003**

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					8.7000e-004	0.0000	8.7000e-004	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.5000e-004	4.5000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457
Total	**8.7000e-004**	**7.8700e-003**	**7.6200e-003**	**1.0000e-005**	**8.7000e-004**	**4.7000e-004**	**1.3400e-003**	**4.3000e-004**	**4.5000e-004**	**8.8000e-004**	**0.0000**	**1.0408**	**1.0408**	**2.0000e-004**	**0.0000**	**1.0457**

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	2.7000e-004	0.0129	2.1000e-003	2.0000e-005	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.6235	1.6235	1.7000e-004	0.0000	1.6278
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.1300e-003	8.1300e-003	0.0000	0.0000	8.1400e-003
Total	**2.8000e-004**	**0.0129**	**2.1700e-003**	**2.0000e-005**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**1.6316**	**1.6316**	**1.7000e-004**	**0.0000**	**1.6360**

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					3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	5.6100e-003	7.7700e-003	1.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457
Total	**5.4000e-004**	**5.6100e-003**	**7.7700e-003**	**1.0000e-005**	**3.9000e-004**	**2.1000e-004**	**6.0000e-004**	**1.0000e-004**	**2.1000e-004**	**3.1000e-004**	**0.0000**	**1.0408**	**1.0408**	**2.0000e-004**	**0.0000**	**1.0457**

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	2.7000e-004	0.0129	2.1000e-003	2.0000e-005	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.6235	1.6235	1.7000e-004	0.0000	1.6278
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.1300e-003	8.1300e-003	0.0000	0.0000	8.1400e-003
Total	**2.8000e-004**	**0.0129**	**2.1700e-003**	**2.0000e-005**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**1.6316**	**1.6316**	**1.7000e-004**	**0.0000**	**1.6360**

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	0.0431	0.4426	0.3694	5.7000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	50.0302	50.0302	0.0162	0.0000	50.4348
Total	**0.0431**	**0.4426**	**0.3694**	**5.7000e-004**		**0.0261**	**0.0261**		**0.0240**	**0.0240**	**0.0000**	**50.0302**	**50.0302**	**0.0162**	**0.0000**	**50.4348**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7000e-004	0.0167	4.6400e-003	2.0000e-005	2.3000e-004	3.0000e-005	2.6000e-004	7.0000e-005	3.0000e-005	9.0000e-005	0.0000	2.0069	2.0069	2.0000e-004	0.0000	2.0118
Worker	6.6000e-004	3.0000e-004	3.9300e-003	1.0000e-005	4.5000e-004	1.0000e-005	4.5000e-004	1.2000e-004	1.0000e-005	1.2000e-004	0.0000	0.4879	0.4879	2.0000e-005	0.0000	0.4885

Total	**1.1300e-003**	**0.0170**	**8.5700e-003**	**3.0000e-005**	**6.8000e-004**	**4.0000e-005**	**7.1000e-004**	**1.9000e-004**	**4.0000e-005**	**2.1000e-004**	**0.0000**	**2.4949**	**2.4949**	**2.2000e-004**	**0.0000**	**2.5003**

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	0.0119	0.2240	0.3981	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.0302	50.0302	0.0162	0.0000	50.4347
Total	**0.0119**	**0.2240**	**0.3981**	**5.7000e-004**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**50.0302**	**50.0302**	**0.0162**	**0.0000**	**50.4347**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7000e-004	0.0167	4.6400e-003	2.0000e-005	2.3000e-004	3.0000e-005	2.6000e-004	7.0000e-005	3.0000e-005	9.0000e-005	0.0000	2.0069	2.0069	2.0000e-004	0.0000	2.0118
Worker	6.6000e-004	3.0000e-004	3.9300e-003	1.0000e-005	4.5000e-004	1.0000e-005	4.5000e-004	1.2000e-004	1.0000e-005	1.2000e-004	0.0000	0.4879	0.4879	2.0000e-005	0.0000	0.4885
Total	**1.1300e-003**	**0.0170**	**8.5700e-003**	**3.0000e-005**	**6.8000e-004**	**4.0000e-005**	**7.1000e-004**	**1.9000e-004**	**4.0000e-005**	**2.1000e-004**	**0.0000**	**2.4949**	**2.4949**	**2.2000e-004**	**0.0000**	**2.5003**

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	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9300e-003**	**0.0181**	**0.0178**	**3.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.3482**	**2.3482**	**6.8000e-004**	**0.0000**	**2.3653**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	3.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0366	0.0366	0.0000	0.0000	0.0366
Total	**5.0000e-005**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0366**	**0.0366**	**0.0000**	**0.0000**	**0.0366**

Mitigated Construction On-Site

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

Off-Road	8.5000e-004	0.0128	0.0196	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5000e-004**	**0.0128**	**0.0196**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.3482**	**2.3482**	**6.8000e-004**	**0.0000**	**2.3653**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	3.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0366	0.0366	0.0000	0.0000	0.0366
Total	**5.0000e-005**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0366**	**0.0366**	**0.0000**	**0.0000**	**0.0366**

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	0.1499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.1505**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

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	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0700e-003	4.0700e-003	0.0000	0.0000	4.0700e-003
Total	**1.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0700e-003**	**4.0700e-003**	**0.0000**	**0.0000**	**4.0700e-003**

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	0.1499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.1505**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

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	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0700e-003	4.0700e-003	0.0000	0.0000	4.0700e-003
Total	**1.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0700e-003**	**4.0700e-003**	**0.0000**	**0.0000**	**4.0700e-003**

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	0.0703	0.3055	0.8582	3.0400e-003	0.2823	2.5600e-003	0.2849	0.0756	2.3900e-003	0.0780	0.0000	278.0248	278.0248	9.1700e-003	0.0000	278.2541
Unmitigated	0.0703	0.3055	0.8582	3.0400e-003	0.2823	2.5600e-003	0.2849	0.0756	2.3900e-003	0.0780	0.0000	278.0248	278.0248	9.1700e-003	0.0000	278.2541

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	370.57	125.63	51.46	759,254	759,254
Total	370.57	125.63	51.46	759,254	759,254

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	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	20.3833	20.3833	2.0400e-003	4.2000e-004	20.5600
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.3833	20.3833	2.0400e-003	4.2000e-004	20.5600
NaturalGas Mitigated	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.2898	28.2898	5.4000e-004	5.2000e-004	28.4580
NaturalGas Unmitigated	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.2898	28.2898	5.4000e-004	5.2000e-004	28.4580

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					
High School	530132	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.2898	28.2898	5.4000e-004	5.2000e-004	28.4580
Total		**2.8600e-003**	**0.0260**	**0.0218**	**1.6000e-004**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**28.2898**	**28.2898**	**5.4000e-004**	**5.2000e-004**	**28.4580**

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					
High School	530132	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	28.2898	28.2898	5.4000e-004	5.2000e-004	28.4580
Total		**2.8600e-003**	**0.0260**	**0.0218**	**1.6000e-004**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**28.2898**	**28.2898**	**5.4000e-004**	**5.2000e-004**	**28.4580**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	154957	20.3833	2.0400e-003	4.2000e-004	20.5600
Total		**20.3833**	**2.0400e-003**	**4.2000e-004**	**20.5600**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	154957	20.3833	2.0400e-003	4.2000e-004	20.5600
Total		**20.3833**	**2.0400e-003**	**4.2000e-004**	**20.5600**

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	0.1273	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1000e-004	5.1000e-004	0.0000	0.0000	5.5000e-004
Unmitigated	0.1273	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1000e-004	5.1000e-004	0.0000	0.0000	5.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1000e-004	5.1000e-004	0.0000	0.0000	5.5000e-004
Total	**0.1273**	**0.0000**	**2.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.1000e-004**	**5.1000e-004**	**0.0000**	**0.0000**	**5.5000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0150					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.1000e-004	5.1000e-004	0.0000	0.0000	5.5000e-004
Total	**0.1273**	**0.0000**	**2.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.1000e-004**	**5.1000e-004**	**0.0000**	**0.0000**	**5.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1125	0.0313	7.7000e-004	3.1247
Unmitigated	2.1125	0.0313	7.7000e-004	3.1247

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.954633 / 2.45477	2.1125	0.0313	7.7000e-004	3.1247
Total		**2.1125**	**0.0313**	**7.7000e-004**	**3.1247**

Mitigated

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

High School	0.954633 / 2.45477	2.1125	0.0313	7.7000e-004	3.1247
Total		**2.1125**	**0.0313**	**7.7000e-004**	**3.1247**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.5878	0.4484	0.0000	18.7985
Unmitigated	7.5878	0.4484	0.0000	18.7985

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	37.38	7.5878	0.4484	0.0000	18.7985
Total		**7.5878**	**0.4484**	**0.0000**	**18.7985**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	37.38	7.5878	0.4484	0.0000	18.7985
Total		**7.5878**	**0.4484**	**0.0000**	**18.7985**

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

Presentation HS - Phase 2 Construction - Santa Clara County, Annual

Presentation HS - Phase 2 Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	29.17	1000sqft	0.67	29,171.00	0

1.2 Other Project Characteristics

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

Land Use - Phase 2 area

Construction Phase - use default schedule

Off-road Equipment -

Grading - added minor import/export

Demolition - Based on building and demo information provided

Trips and VMT - For on- and near-site travel

Construction Off-road Equipment Mitigation - Tier 4 interim (>50hp) and BMPs

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	29,170.00	29,171.00
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	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

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					
2022	0.1945	0.4448	0.4373	7.3000e-004	0.0149	0.0217	0.0366	2.6600e-003	0.0201	0.0227	0.0000	64.5932	64.5932	0.0186	0.0000	65.0590
Maximum	**0.1945**	**0.4448**	**0.4373**	**7.3000e-004**	**0.0149**	**0.0217**	**0.0366**	**2.6600e-003**	**0.0201**	**0.0227**	**0.0000**	**64.5932**	**64.5932**	**0.0186**	**0.0000**	**65.0590**

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					
2022	0.1698	0.3057	0.4823	7.3000e-004	7.2100e-003	2.2800e-003	9.4900e-003	7.9000e-004	2.2800e-003	3.0700e-003	0.0000	64.5931	64.5931	0.0186	0.0000	65.0590

Maximum	**0.1698**	**0.3057**	**0.4823**	**7.3000e-004**	**7.2100e-003**	**2.2800e-003**	**9.4900e-003**	**7.9000e-004**	**2.2800e-003**	**3.0700e-003**	**0.0000**	**64.5931**	**64.5931**	**0.0186**	**0.0000**	**65.0590**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.72**	**31.27**	**-10.31**	**0.00**	**51.58**	**89.51**	**74.09**	**70.30**	**88.65**	**86.50**	**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	**5-2-2022**	**8-1-2022**	0.2731	0.1807
2	**8-2-2022**	**9-30-2022**	0.1724	0.1083
		Highest	0.2731	0.1807

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	0.1292	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.6000e-004
Energy	2.9000e-003	0.0264	0.0222	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	49.3876	49.3876	2.6200e-003	9.5000e-004	49.7374
Mobile	0.0614	0.2414	0.7565	2.8800e-003	0.2864	2.2200e-003	0.2887	0.0767	2.0700e-003	0.0787	0.0000	263.6210	263.6210	8.0100e-003	0.0000	263.8214
Waste						0.0000	0.0000		0.0000	0.0000	7.6974	0.0000	7.6974	0.4549	0.0000	19.0700
Water						0.0000	0.0000		0.0000	0.0000	0.3073	1.8361	2.1434	0.0317	7.8000e-004	3.1704
Total	**0.1935**	**0.2678**	**0.7790**	**3.0400e-003**	**0.2864**	**4.2200e-003**	**0.2907**	**0.0767**	**4.0700e-003**	**0.0807**	**8.0047**	**314.8453**	**322.8500**	**0.4973**	**1.7300e-003**	**335.7998**

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	0.1292	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.6000e-004
Energy	2.9000e-003	0.0264	0.0222	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	49.3876	49.3876	2.6200e-003	9.5000e-004	49.7374
Mobile	0.0614	0.2414	0.7565	2.8800e-003	0.2864	2.2200e-003	0.2887	0.0767	2.0700e-003	0.0787	0.0000	263.6210	263.6210	8.0100e-003	0.0000	263.8214
Waste						0.0000	0.0000		0.0000	0.0000	7.6974	0.0000	7.6974	0.4549	0.0000	19.0700
Water						0.0000	0.0000		0.0000	0.0000	0.3073	1.8361	2.1434	0.0317	7.8000e-004	3.1704
Total	**0.1935**	**0.2678**	**0.7790**	**3.0400e-003**	**0.2864**	**4.2200e-003**	**0.2907**	**0.0767**	**4.0700e-003**	**0.0807**	**8.0047**	**314.8453**	**322.8500**	**0.4973**	**1.7300e-003**	**335.7998**

	ROG	NOx	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	5/2/2022	5/13/2022	5	10	
2	Site Preparation	Site Preparation	5/14/2022	5/16/2022	5	1	
3	Grading	Grading	5/17/2022	5/18/2022	5	2	
4	Building Construction	Building Construction	5/19/2022	10/5/2022	5	100	
5	Paving	Paving	10/6/2022	10/12/2022	5	5	
6	Architectural Coating	Architectural Coating	10/13/2022	10/19/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 43,757; Non-Residential Outdoor: 14,586; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	12.00	5.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	119.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	250.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

Site Preparation	2	5.00	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 Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0128	0.0000	0.0128	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**0.0128**	**1.6900e-003**	**0.0145**	**1.9400e-003**	**1.6100e-003**	**3.5500e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

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	1.1000e-004	5.6700e-003	9.4000e-004	1.0000e-005	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.7568	0.7568	7.0000e-005	0.0000	0.7586
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0379	0.0379	0.0000	0.0000	0.0379
Total	**1.6000e-004**	**5.6900e-003**	**1.2100e-003**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.7946**	**0.7946**	**7.0000e-005**	**0.0000**	**0.7965**

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					5.7800e-003	0.0000	5.7800e-003	4.4000e-004	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4000e-003	0.0256	0.0387	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**2.4000e-003**	**0.0256**	**0.0387**	**6.0000e-005**	**5.7800e-003**	**8.0000e-004**	**6.5800e-003**	**4.4000e-004**	**8.0000e-004**	**1.2400e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

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	1.1000e-004	5.6700e-003	9.4000e-004	1.0000e-005	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.7568	0.7568	7.0000e-005	0.0000	0.7586
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0379	0.0379	0.0000	0.0000	0.0379
Total	**1.6000e-004**	**5.6900e-003**	**1.2100e-003**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.7946**	**0.7946**	**7.0000e-005**	**0.0000**	**0.7965**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	0.0000	0.0000	1.9000e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.8900e-003**	**1.8900e-003**	**0.0000**	**0.0000**	**1.9000e-003**

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	1.5500e-003	2.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**9.0000e-005**	**1.5500e-003**	**2.9300e-003**	**0.0000**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.8900e-003	1.8900e-003	0.0000	0.0000	1.9000e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.8900e-003**	**1.8900e-003**	**0.0000**	**0.0000**	**1.9000e-003**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.7000e-004	0.0000	8.7000e-004	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-004	6.4100e-003	7.4700e-003	1.0000e-005		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	1.0414	1.0414	1.9000e-004	0.0000	1.0462
Total	**7.1000e-004**	**6.4100e-003**	**7.4700e-003**	**1.0000e-005**	**8.7000e-004**	**3.4000e-004**	**1.2100e-003**	**4.3000e-004**	**3.2000e-004**	**7.5000e-004**	**0.0000**	**1.0414**	**1.0414**	**1.9000e-004**	**0.0000**	**1.0462**

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	2.4000e-004	0.0119	1.9700e-003	2.0000e-005	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.5898	1.5898	1.5000e-004	0.0000	1.5937
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	7.5800e-003	7.5800e-003	0.0000	0.0000	7.5800e-003
Total	**2.5000e-004**	**0.0119**	**2.0200e-003**	**2.0000e-005**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**1.5974**	**1.5974**	**1.5000e-004**	**0.0000**	**1.6013**

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					3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	5.1100e-003	7.7400e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	1.0414	1.0414	1.9000e-004	0.0000	1.0462
Total	**4.8000e-004**	**5.1100e-003**	**7.7400e-003**	**1.0000e-005**	**3.9000e-004**	**1.6000e-004**	**5.5000e-004**	**1.0000e-004**	**1.6000e-004**	**2.6000e-004**	**0.0000**	**1.0414**	**1.0414**	**1.9000e-004**	**0.0000**	**1.0462**

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	2.4000e-004	0.0119	1.9700e-003	2.0000e-005	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.5898	1.5898	1.5000e-004	0.0000	1.5937
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	7.5800e-003	7.5800e-003	0.0000	0.0000	7.5800e-003
Total	**2.5000e-004**	**0.0119**	**2.0200e-003**	**2.0000e-005**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**1.5974**	**1.5974**	**1.5000e-004**	**0.0000**	**1.6013**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

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	3.9000e-004	0.0154	3.9900e-003	2.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.9698	1.9698	1.7000e-004	0.0000	1.9742
Worker	5.6000e-004	2.4000e-004	3.2100e-003	1.0000e-005	4.5000e-004	1.0000e-005	4.5000e-004	1.2000e-004	1.0000e-005	1.2000e-004	0.0000	0.4545	0.4545	2.0000e-005	0.0000	0.4550

Total	**9.5000e-004**	**0.0156**	**7.2000e-003**	**3.0000e-005**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**1.9000e-004**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**2.4244**	**2.4244**	**1.9000e-004**	**0.0000**	**2.4291**

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	0.0119	0.2240	0.3981	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0119**	**0.2240**	**0.3981**	**5.7000e-004**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

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	3.9000e-004	0.0154	3.9900e-003	2.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.9698	1.9698	1.7000e-004	0.0000	1.9742
Worker	5.6000e-004	2.4000e-004	3.2100e-003	1.0000e-005	4.5000e-004	1.0000e-005	4.5000e-004	1.2000e-004	1.0000e-005	1.2000e-004	0.0000	0.4545	0.4545	2.0000e-005	0.0000	0.4550
Total	**9.5000e-004**	**0.0156**	**7.2000e-003**	**3.0000e-005**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**1.9000e-004**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**2.4244**	**2.4244**	**1.9000e-004**	**0.0000**	**2.4291**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0341	0.0341	0.0000	0.0000	0.0341
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0341**	**0.0341**	**0.0000**	**0.0000**	**0.0341**

Mitigated Construction On-Site

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

Off-Road	8.5000e-004	0.0128	0.0196	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5000e-004**	**0.0128**	**0.0196**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0341	0.0341	0.0000	0.0000	0.0341
Total	**4.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0341**	**0.0341**	**0.0000**	**0.0000**	**0.0341**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.1526**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.7900e-003	3.7900e-003	0.0000	0.0000	3.7900e-003
Total	**0.0000**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.7900e-003**	**3.7900e-003**	**0.0000**	**0.0000**	**3.7900e-003**

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	0.1521					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.1526**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.7900e-003	3.7900e-003	0.0000	0.0000	3.7900e-003
Total	**0.0000**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.7900e-003**	**3.7900e-003**	**0.0000**	**0.0000**	**3.7900e-003**

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	0.0614	0.2414	0.7565	2.8800e-003	0.2864	2.2200e-003	0.2887	0.0767	2.0700e-003	0.0787	0.0000	263.6210	263.6210	8.0100e-003	0.0000	263.8214
Unmitigated	0.0614	0.2414	0.7565	2.8800e-003	0.2864	2.2200e-003	0.2887	0.0767	2.0700e-003	0.0787	0.0000	263.6210	263.6210	8.0100e-003	0.0000	263.8214

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	376.00	127.47	52.21	770,373	770,373
Total	376.00	127.47	52.21	770,373	770,373

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
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.614951	0.035734	0.181842	0.104158	0.013506	0.005015	0.012793	0.021727	0.002177	0.001514	0.005249	0.000632	0.000704

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	20.6825	20.6825	2.0700e-003	4.3000e-004	20.8618
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.6825	20.6825	2.0700e-003	4.3000e-004	20.8618
NaturalGas Mitigated	2.9000e-003	0.0264	0.0222	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.7051	28.7051	5.5000e-004	5.3000e-004	28.8757
NaturalGas Unmitigated	2.9000e-003	0.0264	0.0222	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.7051	28.7051	5.5000e-004	5.3000e-004	28.8757

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					
High School	537913	2.9000e-003	0.0264	0.0222	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.7051	28.7051	5.5000e-004	5.3000e-004	28.8757
Total		**2.9000e-003**	**0.0264**	**0.0222**	**1.6000e-004**		**2.0000e-003**	**2.0000e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**28.7051**	**28.7051**	**5.5000e-004**	**5.3000e-004**	**28.8757**

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					
High School	537913	2.9000e-003	0.0264	0.0222	1.6000e-004		2.0000e-003	2.0000e-003		2.0000e-003	2.0000e-003	0.0000	28.7051	28.7051	5.5000e-004	5.3000e-004	28.8757
Total		**2.9000e-003**	**0.0264**	**0.0222**	**1.6000e-004**		**2.0000e-003**	**2.0000e-003**		**2.0000e-003**	**2.0000e-003**	**0.0000**	**28.7051**	**28.7051**	**5.5000e-004**	**5.3000e-004**	**28.8757**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	157232	20.6825	2.0700e-003	4.3000e-004	20.8618
Total		**20.6825**	**2.0700e-003**	**4.3000e-004**	**20.8618**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	157232	20.6825	2.0700e-003	4.3000e-004	20.8618
Total		**20.6825**	**2.0700e-003**	**4.3000e-004**	**20.8618**

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	0.1292	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.6000e-004
Unmitigated	0.1292	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.6000e-004
Total	**0.1292**	**0.0000**	**2.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.2000e-004	5.2000e-004	0.0000	0.0000	5.6000e-004
Total	**0.1292**	**0.0000**	**2.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.0000**	**0.0000**	**5.6000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1434	0.0317	7.8000e-004	3.1704
Unmitigated	2.1434	0.0317	7.8000e-004	3.1704

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.968579 / 2.49063	2.1434	0.0317	7.8000e-004	3.1704
Total		**2.1434**	**0.0317**	**7.8000e-004**	**3.1704**

Mitigated

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

High School	0.968579 / 2.49063	2.1434	0.0317	7.8000e-004	3.1704
Total		**2.1434**	**0.0317**	**7.8000e-004**	**3.1704**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.6974	0.4549	0.0000	19.0700
Unmitigated	7.6974	0.4549	0.0000	19.0700

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	37.92	7.6974	0.4549	0.0000	19.0700
Total		**7.6974**	**0.4549**	**0.0000**	**19.0700**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	37.92	7.6974	0.4549	0.0000	19.0700
Total		**7.6974**	**0.4549**	**0.0000**	**19.0700**

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

Presentation HS - Phase 3 Construction - Santa Clara County, Annual

Presentation HS - Phase 3 Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	42.56	1000sqft	0.98	42,555.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2025
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 rate

Land Use - Phase 2 area

Construction Phase - use default schedule

Off-road Equipment -

Grading - added minor import/export

Demolition - Based on building and demo information provided

Trips and VMT - For on- and near-site travel

Construction Off-road Equipment Mitigation - Tier 4 interim (>50hp) and BMPs

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	1,000.00
tblGrading	MaterialImported	0.00	1,000.00
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	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

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					
2024	0.2590	0.3831	0.4337	7.4000e-004	0.0152	0.0165	0.0317	2.7400e-003	0.0153	0.0180	0.0000	65.3597	65.3597	0.0186	0.0000	65.8242
Maximum	**0.2590**	**0.3831**	**0.4337**	**7.4000e-004**	**0.0152**	**0.0165**	**0.0317**	**2.7400e-003**	**0.0153**	**0.0180**	**0.0000**	**65.3597**	**65.3597**	**0.0186**	**0.0000**	**65.8242**

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					
2024	0.2393	0.3023	0.4834	7.4000e-004	7.5100e-003	1.9800e-003	9.4800e-003	8.8000e-004	1.9800e-003	2.8600e-003	0.0000	65.3596	65.3596	0.0186	0.0000	65.8241
Maximum	**0.2393**	**0.3023**	**0.4834**	**7.4000e-004**	**7.5100e-003**	**1.9800e-003**	**9.4800e-003**	**8.8000e-004**	**1.9800e-003**	**2.8600e-003**	**0.0000**	**65.3596**	**65.3596**	**0.0186**	**0.0000**	**65.8241**

	ROG	NOx	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	**7.61**	**21.09**	**-11.47**	**0.00**	**50.49**	**88.00**	**70.07**	**67.88**	**87.02**	**84.11**	**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	**5-1-2024**	**7-31-2024**	0.2354	0.1794
2	**8-1-2024**	**9-30-2024**	0.1517	0.1114
		Highest	0.2354	0.1794

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	0.1884	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Energy	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	72.0473	72.0473	3.8200e-003	1.3900e-003	72.5576
Mobile	0.0848	0.3390	1.0370	4.0600e-003	0.4179	3.1600e-003	0.4210	0.1118	2.9400e-003	0.1148	0.0000	372.0516	372.0516	0.0111	0.0000	372.3302
Waste						0.0000	0.0000		0.0000	0.0000	11.2274	0.0000	11.2274	0.6635	0.0000	27.8155
Water						0.0000	0.0000		0.0000	0.0000	0.4482	2.6783	3.1265	0.0463	1.1400e-003	4.6246
Total	**0.2774**	**0.3774**	**1.0697**	**4.2900e-003**	**0.4179**	**6.0800e-003**	**0.4239**	**0.1118**	**5.8600e-003**	**0.1177**	**11.6757**	**446.7779**	**458.4536**	**0.7248**	**2.5300e-003**	**477.3287**

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	0.1884	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Energy	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	72.0473	72.0473	3.8200e-003	1.3900e-003	72.5576
Mobile	0.0848	0.3390	1.0370	4.0600e-003	0.4179	3.1600e-003	0.4210	0.1118	2.9400e-003	0.1148	0.0000	372.0516	372.0516	0.0111	0.0000	372.3302
Waste						0.0000	0.0000		0.0000	0.0000	11.2274	0.0000	11.2274	0.6635	0.0000	27.8155
Water						0.0000	0.0000		0.0000	0.0000	0.4482	2.6783	3.1265	0.0463	1.1400e-003	4.6246
Total	**0.2774**	**0.3774**	**1.0697**	**4.2900e-003**	**0.4179**	**6.0800e-003**	**0.4239**	**0.1118**	**5.8600e-003**	**0.1177**	**11.6757**	**446.7779**	**458.4536**	**0.7248**	**2.5300e-003**	**477.3287**

	ROG	NOx	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	5/1/2024	5/14/2024	5	10	
2	Site Preparation	Site Preparation	5/15/2024	5/15/2024	5	1	
3	Grading	Grading	5/16/2024	5/17/2024	5	2	
4	Building Construction	Building Construction	5/18/2024	10/4/2024	5	100	
5	Paving	Paving	10/5/2024	10/11/2024	5	5	
6	Architectural Coating	Architectural Coating	10/12/2024	10/18/2024	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 63,833; Non-Residential Outdoor: 21,278; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	4.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	18.00	7.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	118.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	250.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	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 Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0128	0.0000	0.0128	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0274	0.0370	6.0000e-005		1.2500e-003	1.2500e-003		1.2000e-003	1.2000e-003	0.0000	5.2104	5.2104	9.4000e-004	0.0000	5.2339
Total	**3.0800e-003**	**0.0274**	**0.0370**	**6.0000e-005**	**0.0128**	**1.2500e-003**	**0.0141**	**1.9400e-003**	**1.2000e-003**	**3.1400e-003**	**0.0000**	**5.2104**	**5.2104**	**9.4000e-004**	**0.0000**	**5.2339**

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	8.0000e-005	4.5700e-003	8.1000e-004	1.0000e-005	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.7120	0.7120	6.0000e-005	0.0000	0.7134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0351	0.0351	0.0000	0.0000	0.0351

Total	**1.2000e-004**	**4.5900e-003**	**1.0300e-003**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.7470**	**0.7470**	**6.0000e-005**	**0.0000**	**0.7485**

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					5.7600e-003	0.0000	5.7600e-003	4.4000e-004	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1700e-003	0.0236	0.0387	6.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004	0.0000	5.2104	5.2104	9.4000e-004	0.0000	5.2339
Total	**2.1700e-003**	**0.0236**	**0.0387**	**6.0000e-005**	**5.7600e-003**	**6.0000e-004**	**6.3600e-003**	**4.4000e-004**	**6.0000e-004**	**1.0400e-003**	**0.0000**	**5.2104**	**5.2104**	**9.4000e-004**	**0.0000**	**5.2339**

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	8.0000e-005	4.5700e-003	8.1000e-004	1.0000e-005	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.7120	0.7120	6.0000e-005	0.0000	0.7134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	2.0000e-005	2.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0351	0.0351	0.0000	0.0000	0.0351
Total	**1.2000e-004**	**4.5900e-003**	**1.0300e-003**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.7470**	**0.7470**	**6.0000e-005**	**0.0000**	**0.7485**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5000e-004	2.8000e-003	1.9500e-003	0.0000		1.0000e-004	1.0000e-004		9.0000e-005	9.0000e-005	0.0000	0.4274	0.4274	1.4000e-004	0.0000	0.4309
Total	**2.5000e-004**	**2.8000e-003**	**1.9500e-003**	**0.0000**	**2.7000e-004**	**1.0000e-004**	**3.7000e-004**	**3.0000e-005**	**9.0000e-005**	**1.2000e-004**	**0.0000**	**0.4274**	**0.4274**	**1.4000e-004**	**0.0000**	**0.4309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7500e-003	1.7500e-003	0.0000	0.0000	1.7500e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.7500e-003**	**1.7500e-003**	**0.0000**	**0.0000**	**1.7500e-003**

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	1.5500e-003	2.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.4274	0.4274	1.4000e-004	0.0000	0.4309
Total	**9.0000e-005**	**1.5500e-003**	**2.9300e-003**	**0.0000**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.4274**	**0.4274**	**1.4000e-004**	**0.0000**	**0.4309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7500e-003	1.7500e-003	0.0000	0.0000	1.7500e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.7500e-003**	**1.7500e-003**	**0.0000**	**0.0000**	**1.7500e-003**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.7000e-004	0.0000	8.7000e-004	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2000e-004	5.4800e-003	7.3900e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.4000e-004	2.4000e-004	0.0000	1.0421	1.0421	1.9000e-004	0.0000	1.0468
Total	**6.2000e-004**	**5.4800e-003**	**7.3900e-003**	**1.0000e-005**	**8.7000e-004**	**2.5000e-004**	**1.1200e-003**	**4.3000e-004**	**2.4000e-004**	**6.7000e-004**	**0.0000**	**1.0421**	**1.0421**	**1.9000e-004**	**0.0000**	**1.0468**

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	1.6000e-004	9.6800e-003	1.7200e-003	2.0000e-005	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	1.5085	1.5085	1.2000e-004	0.0000	1.5114
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	7.0100e-003	7.0100e-003	0.0000	0.0000	7.0200e-003
Total	**1.7000e-004**	**9.6800e-003**	**1.7600e-003**	**2.0000e-005**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**1.5155**	**1.5155**	**1.2000e-004**	**0.0000**	**1.5184**

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					3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	4.7300e-003	7.7300e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.0421	1.0421	1.9000e-004	0.0000	1.0468
Total	**4.3000e-004**	**4.7300e-003**	**7.7300e-003**	**1.0000e-005**	**3.9000e-004**	**1.2000e-004**	**5.1000e-004**	**1.0000e-004**	**1.2000e-004**	**2.2000e-004**	**0.0000**	**1.0421**	**1.0421**	**1.9000e-004**	**0.0000**	**1.0468**

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	1.6000e-004	9.6800e-003	1.7200e-003	2.0000e-005	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	1.5085	1.5085	1.2000e-004	0.0000	1.5114
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	7.0100e-003	7.0100e-003	0.0000	0.0000	7.0200e-003
Total	**1.7000e-004**	**9.6800e-003**	**1.7600e-003**	**2.0000e-005**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**1.5155**	**1.5155**	**1.2000e-004**	**0.0000**	**1.5184**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0298	0.2987	0.3534	5.7000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	50.1212	50.1212	0.0162	0.0000	50.5265
Total	**0.0298**	**0.2987**	**0.3534**	**5.7000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**50.1212**	**50.1212**	**0.0162**	**0.0000**	**50.5265**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1000e-004	0.0181	4.7800e-003	3.0000e-005	3.2000e-004	1.0000e-005	3.3000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	2.6365	2.6365	1.9000e-004	0.0000	2.6411
Worker	7.1000e-004	2.8000e-004	4.0100e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6309	0.6309	2.0000e-005	0.0000	0.6314

Total	**1.1200e-003**	**0.0184**	**8.7900e-003**	**4.0000e-005**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**2.7000e-004**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**3.2674**	**3.2674**	**2.1000e-004**	**0.0000**	**3.2725**

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	0.0119	0.2240	0.3981	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.1211	50.1211	0.0162	0.0000	50.5264
Total	**0.0119**	**0.2240**	**0.3981**	**5.7000e-004**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**50.1211**	**50.1211**	**0.0162**	**0.0000**	**50.5264**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1000e-004	0.0181	4.7800e-003	3.0000e-005	3.2000e-004	1.0000e-005	3.3000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	2.6365	2.6365	1.9000e-004	0.0000	2.6411
Worker	7.1000e-004	2.8000e-004	4.0100e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.6309	0.6309	2.0000e-005	0.0000	0.6314
Total	**1.1200e-003**	**0.0184**	**8.7900e-003**	**4.0000e-005**	**9.9000e-004**	**2.0000e-005**	**1.0100e-003**	**2.7000e-004**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**3.2674**	**3.2674**	**2.1000e-004**	**0.0000**	**3.2725**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4800e-003	0.0131	0.0176	3.0000e-005		6.1000e-004	6.1000e-004		5.7000e-004	5.7000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4800e-003**	**0.0131**	**0.0176**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**2.3502**	**2.3502**	**6.8000e-004**	**0.0000**	**2.3673**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.0000e-005	2.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0315	0.0315	0.0000	0.0000	0.0316
Total	**4.0000e-005**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0315**	**0.0315**	**0.0000**	**0.0000**	**0.0316**

Mitigated Construction On-Site

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

Off-Road	8.5000e-004	0.0128	0.0196	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5000e-004**	**0.0128**	**0.0196**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.3502**	**2.3502**	**6.8000e-004**	**0.0000**	**2.3673**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.0000e-005	2.0000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0315	0.0315	0.0000	0.0000	0.0316
Total	**4.0000e-005**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0315**	**0.0315**	**0.0000**	**0.0000**	**0.0316**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2219					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
Total	**0.2224**	**3.0500e-003**	**4.5300e-003**	**1.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6392**

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	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	7.0100e-003	7.0100e-003	0.0000	0.0000	7.0200e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.0100e-003**	**7.0100e-003**	**0.0000**	**0.0000**	**7.0200e-003**

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	0.2219					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
Total	**0.2224**	**3.0500e-003**	**4.5300e-003**	**1.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6392**

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	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	7.0100e-003	7.0100e-003	0.0000	0.0000	7.0200e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.0100e-003**	**7.0100e-003**	**0.0000**	**0.0000**	**7.0200e-003**

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	0.0848	0.3390	1.0370	4.0600e-003	0.4179	3.1600e-003	0.4210	0.1118	2.9400e-003	0.1148	0.0000	372.0516	372.0516	0.0111	0.0000	372.3302
Unmitigated	0.0848	0.3390	1.0370	4.0600e-003	0.4179	3.1600e-003	0.4210	0.1118	2.9400e-003	0.1148	0.0000	372.0516	372.0516	0.0111	0.0000	372.3302

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	548.53	185.97	76.17	1,123,868	1,123,868
Total	548.53	185.97	76.17	1,123,868	1,123,868

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
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.616749	0.035330	0.181430	0.103378	0.013121	0.005016	0.012828	0.021913	0.002183	0.001508	0.005219	0.000634	0.000691

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	30.1719	30.1719	3.0200e-003	6.2000e-004	30.4334
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.1719	30.1719	3.0200e-003	6.2000e-004	30.4334
NaturalGas Mitigated	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8753	41.8753	8.0000e-004	7.7000e-004	42.1242
NaturalGas Unmitigated	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8753	41.8753	8.0000e-004	7.7000e-004	42.1242

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					
High School	784714	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8753	41.8753	8.0000e-004	7.7000e-004	42.1242
Total		**4.2300e-003**	**0.0385**	**0.0323**	**2.3000e-004**		**2.9200e-003**	**2.9200e-003**		**2.9200e-003**	**2.9200e-003**	**0.0000**	**41.8753**	**41.8753**	**8.0000e-004**	**7.7000e-004**	**42.1242**

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					
High School	784714	4.2300e-003	0.0385	0.0323	2.3000e-004		2.9200e-003	2.9200e-003		2.9200e-003	2.9200e-003	0.0000	41.8753	41.8753	8.0000e-004	7.7000e-004	42.1242
Total		**4.2300e-003**	**0.0385**	**0.0323**	**2.3000e-004**		**2.9200e-003**	**2.9200e-003**		**2.9200e-003**	**2.9200e-003**	**0.0000**	**41.8753**	**41.8753**	**8.0000e-004**	**7.7000e-004**	**42.1242**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	229371	30.1719	3.0200e-003	6.2000e-004	30.4334
Total		**30.1719**	**3.0200e-003**	**6.2000e-004**	**30.4334**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	229371	30.1719	3.0200e-003	6.2000e-004	30.4334
Total		**30.1719**	**3.0200e-003**	**6.2000e-004**	**30.4334**

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	0.1884	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Unmitigated	0.1884	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0222					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1662					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Total	**0.1884**	**0.0000**	**3.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.6000e-004**	**7.6000e-004**	**0.0000**	**0.0000**	**8.1000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0222					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1662					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Total	**0.1884**	**0.0000**	**3.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.6000e-004**	**7.6000e-004**	**0.0000**	**0.0000**	**8.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.1265	0.0463	1.1400e-003	4.6246
Unmitigated	3.1265	0.0463	1.1400e-003	4.6246

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	1.41286 / 3.63306	3.1265	0.0463	1.1400e-003	4.6246
Total		**3.1265**	**0.0463**	**1.1400e-003**	**4.6246**

Mitigated

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

High School	1.41286 / 3.63306	3.1265	0.0463	1.1400e-003	4.6246
Total		**3.1265**	**0.0463**	**1.1400e-003**	**4.6246**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.2274	0.6635	0.0000	27.8155
Unmitigated	11.2274	0.6635	0.0000	27.8155

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	55.31	11.2274	0.6635	0.0000	27.8155
Total		**11.2274**	**0.6635**	**0.0000**	**27.8155**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	55.31	11.2274	0.6635	0.0000	27.8155
Total		**11.2274**	**0.6635**	**0.0000**	**27.8155**

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

Presentation HS - Phase 4 Construction - Santa Clara County, Annual

Presentation HS - Phase 4 Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	4.20	1000sqft	0.10	4,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
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 rate

Land Use - Phase 4 area

Construction Phase - use default schedule

Off-road Equipment -

Grading - added minor import/export

Demolition - Based on building and demo information provided

Trips and VMT - For on- and near-site travel

Construction Off-road Equipment Mitigation - Tier 4 interim (>50hp) and BMPs

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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	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

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					
2025	0.0552	0.3249	0.4211	6.9000e-004	1.2200e-003	0.0141	0.0153	5.0000e-004	0.0130	0.0135	0.0000	60.3311	60.3311	0.0182	0.0000	60.7868
Maximum	**0.0552**	**0.3249**	**0.4211**	**6.9000e-004**	**1.2200e-003**	**0.0141**	**0.0153**	**5.0000e-004**	**0.0130**	**0.0135**	**0.0000**	**60.3311**	**60.3311**	**0.0182**	**0.0000**	**60.7868**

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					
2025	0.0379	0.2712	0.4730	6.9000e-004	6.6000e-004	1.8300e-003	2.4900e-003	1.5000e-004	1.8300e-003	1.9800e-003	0.0000	60.3310	60.3310	0.0182	0.0000	60.7867
Maximum	**0.0379**	**0.2712**	**0.4730**	**6.9000e-004**	**6.6000e-004**	**1.8300e-003**	**2.4900e-003**	**1.5000e-004**	**1.8300e-003**	**1.9800e-003**	**0.0000**	**60.3310**	**60.3310**	**0.0182**	**0.0000**	**60.7867**

	ROG	NOx	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	**31.31**	**16.51**	**-12.32**	**0.00**	**45.90**	**87.00**	**83.73**	**70.00**	**85.94**	**85.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-1-2025**	**7-31-2025**	0.1971	0.1578
2	**8-1-2025**	**9-30-2025**	0.1326	0.1040
		Highest	0.1971	0.1578

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	0.0186	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	8.0000e-005
Energy	4.2000e-004	3.8000e-003	3.1900e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	7.1108	7.1108	3.8000e-004	1.4000e-004	7.1611
Mobile	7.9600e-003	0.0324	0.0969	3.9000e-004	0.0412	3.0000e-004	0.0415	0.0110	2.8000e-004	0.0113	0.0000	35.6505	35.6505	1.0500e-003	0.0000	35.6769
Waste						0.0000	0.0000		0.0000	0.0000	1.1083	0.0000	1.1083	0.0655	0.0000	2.7458
Water						0.0000	0.0000		0.0000	0.0000	0.0442	0.2644	0.3086	4.5700e-003	1.1000e-004	0.4565
Total	**0.0270**	**0.0362**	**0.1001**	**4.1000e-004**	**0.0412**	**5.9000e-004**	**0.0418**	**0.0110**	**5.7000e-004**	**0.0116**	**1.1526**	**43.0258**	**44.1783**	**0.0715**	**2.5000e-004**	**46.0404**

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	0.0186	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	8.0000e-005
Energy	4.2000e-004	3.8000e-003	3.1900e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	7.1108	7.1108	3.8000e-004	1.4000e-004	7.1611
Mobile	7.9600e-003	0.0324	0.0969	3.9000e-004	0.0412	3.0000e-004	0.0415	0.0110	2.8000e-004	0.0113	0.0000	35.6505	35.6505	1.0500e-003	0.0000	35.6769
Waste						0.0000	0.0000		0.0000	0.0000	1.1083	0.0000	1.1083	0.0655	0.0000	2.7458
Water						0.0000	0.0000		0.0000	0.0000	0.0442	0.2644	0.3086	4.5700e-003	1.1000e-004	0.4565
Total	**0.0270**	**0.0362**	**0.1001**	**4.1000e-004**	**0.0412**	**5.9000e-004**	**0.0418**	**0.0110**	**5.7000e-004**	**0.0116**	**1.1526**	**43.0258**	**44.1783**	**0.0715**	**2.5000e-004**	**46.0404**

	ROG	NOx	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	5/1/2025	5/14/2025	5	10	
2	Site Preparation	Site Preparation	5/15/2025	5/15/2025	5	1	
3	Grading	Grading	5/16/2025	5/19/2025	5	2	
4	Building Construction	Building Construction	5/20/2025	10/6/2025	5	100	
5	Paving	Paving	10/7/2025	10/13/2025	5	5	
6	Architectural Coating	Architectural Coating	10/14/2025	10/20/2025	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,300; Non-Residential Outdoor: 2,100; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	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 Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	2.8700e-003	0.0255	0.0368	6.0000e-005		1.0500e-003	1.0500e-003		1.0000e-003	1.0000e-003	0.0000	5.2123	5.2123	9.3000e-004	0.0000	5.2357
Total	**2.8700e-003**	**0.0255**	**0.0368**	**6.0000e-005**	**0.0000**	**1.0500e-003**	**1.0500e-003**	**0.0000**	**1.0000e-003**	**1.0000e-003**	**0.0000**	**5.2123**	**5.2123**	**9.3000e-004**	**0.0000**	**5.2357**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.0000e-005	2.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0337	0.0337	0.0000	0.0000	0.0337
Total	**4.0000e-005**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0337**	**0.0337**	**0.0000**	**0.0000**	**0.0337**

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	2.0900e-003	0.0229	0.0386	6.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	5.2123	5.2123	9.3000e-004	0.0000	5.2357
Total	**2.0900e-003**	**0.0229**	**0.0386**	**6.0000e-005**	**0.0000**	**5.1000e-004**	**5.1000e-004**	**0.0000**	**5.1000e-004**	**5.1000e-004**	**0.0000**	**5.2123**	**5.2123**	**9.3000e-004**	**0.0000**	**5.2357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.0000e-005	2.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0337	0.0337	0.0000	0.0000	0.0337
Total	**4.0000e-005**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0337**	**0.0337**	**0.0000**	**0.0000**	**0.0337**

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	2.4000e-003	1.9100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.4274	0.4274	1.4000e-004	0.0000	0.4309
Total	**2.2000e-004**	**2.4000e-003**	**1.9100e-003**	**0.0000**	**2.7000e-004**	**8.0000e-005**	**3.5000e-004**	**3.0000e-005**	**8.0000e-005**	**1.1000e-004**	**0.0000**	**0.4274**	**0.4274**	**1.4000e-004**	**0.0000**	**0.4309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.6800e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.6800e-003**

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					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	1.5500e-003	2.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.4274	0.4274	1.4000e-004	0.0000	0.4309

Total	**9.0000e-005**	**1.5500e-003**	**2.9300e-003**	**0.0000**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**1.0000e-005**	**1.0000e-005**	**2.0000e-005**	**0.0000**	**0.4274**	**0.4274**	**1.4000e-004**	**0.0000**	**0.4309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.6800e-003	1.6800e-003	0.0000	0.0000	1.6800e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.6800e-003**	**1.6800e-003**	**0.0000**	**0.0000**	**1.6800e-003**

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7000e-004	5.1000e-003	7.3600e-003	1.0000e-005		2.1000e-004	2.1000e-004		2.0000e-004	2.0000e-004	0.0000	1.0425	1.0425	1.9000e-004	0.0000	1.0471
Total	**5.7000e-004**	**5.1000e-003**	**7.3600e-003**	**1.0000e-005**	**7.5000e-004**	**2.1000e-004**	**9.6000e-004**	**4.1000e-004**	**2.0000e-004**	**6.1000e-004**	**0.0000**	**1.0425**	**1.0425**	**1.9000e-004**	**0.0000**	**1.0471**

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	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.7300e-003	6.7300e-003	0.0000	0.0000	6.7300e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.7300e-003**	**6.7300e-003**	**0.0000**	**0.0000**	**6.7300e-003**

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					3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	4.5800e-003	7.7200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.0425	1.0425	1.9000e-004	0.0000	1.0471
Total	**4.2000e-004**	**4.5800e-003**	**7.7200e-003**	**1.0000e-005**	**3.4000e-004**	**1.0000e-004**	**4.4000e-004**	**9.0000e-005**	**1.0000e-004**	**1.9000e-004**	**0.0000**	**1.0425**	**1.0425**	**1.9000e-004**	**0.0000**	**1.0471**

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	0.0000	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.7300e-003	6.7300e-003	0.0000	0.0000	6.7300e-003
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.7300e-003**	**6.7300e-003**	**0.0000**	**0.0000**	**6.7300e-003**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0276	0.2741	0.3514	5.7000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	50.1479	50.1479	0.0162	0.0000	50.5533
Total	**0.0276**	**0.2741**	**0.3514**	**5.7000e-004**		**0.0121**	**0.0121**		**0.0111**	**0.0111**	**0.0000**	**50.1479**	**50.1479**	**0.0162**	**0.0000**	**50.5533**

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	6.0000e-005	2.5600e-003	6.6000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.3729	0.3729	3.0000e-005	0.0000	0.3735
Worker	7.0000e-005	3.0000e-005	4.1000e-004	0.0000	7.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0673	0.0673	0.0000	0.0000	0.0673
Total	**1.3000e-004**	**2.5900e-003**	**1.0700e-003**	**0.0000**	**1.2000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.4402**	**0.4402**	**3.0000e-005**	**0.0000**	**0.4409**

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	0.0119	0.2240	0.3981	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.1478	50.1478	0.0162	0.0000	50.5533
Total	**0.0119**	**0.2240**	**0.3981**	**5.7000e-004**		**9.3000e-004**	**9.3000e-004**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**50.1478**	**50.1478**	**0.0162**	**0.0000**	**50.5533**

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	6.0000e-005	2.5600e-003	6.6000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.3729	0.3729	3.0000e-005	0.0000	0.3735
Worker	7.0000e-005	3.0000e-005	4.1000e-004	0.0000	7.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0673	0.0673	0.0000	0.0000	0.0673
Total	**1.3000e-004**	**2.5900e-003**	**1.0700e-003**	**0.0000**	**1.2000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.4402**	**0.4402**	**3.0000e-005**	**0.0000**	**0.4409**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4100e-003	0.0123	0.0176	3.0000e-005		5.5000e-004	5.5000e-004		5.1000e-004	5.1000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4100e-003**	**0.0123**	**0.0176**	**3.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**2.3502**	**2.3502**	**6.8000e-004**	**0.0000**	**2.3673**

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	3.0000e-005	1.0000e-005	1.8000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0303	0.0303	0.0000	0.0000	0.0303
Total	**3.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0303**	**0.0303**	**0.0000**	**0.0000**	**0.0303**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5000e-004	0.0128	0.0196	3.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5000e-004**	**0.0128**	**0.0196**	**3.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**2.3502**	**2.3502**	**6.8000e-004**	**0.0000**	**2.3673**

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	3.0000e-005	1.0000e-005	1.8000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0303	0.0303	0.0000	0.0000	0.0303
Total	**3.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0303**	**0.0303**	**0.0000**	**0.0000**	**0.0303**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0219					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	**0.0223**	**2.8600e-003**	**4.5200e-003**	**1.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**3.0000e-005**	**0.0000**	**0.6392**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0219					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	**0.0223**	**2.8600e-003**	**4.5200e-003**	**1.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**3.0000e-005**	**0.0000**	**0.6392**

Mitigated Construction Off-Site

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

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.9600e-003	0.0324	0.0969	3.9000e-004	0.0412	3.0000e-004	0.0415	0.0110	2.8000e-004	0.0113	0.0000	35.6505	35.6505	1.0500e-003	0.0000	35.6769
Unmitigated	7.9600e-003	0.0324	0.0969	3.9000e-004	0.0412	3.0000e-004	0.0415	0.0110	2.8000e-004	0.0113	0.0000	35.6505	35.6505	1.0500e-003	0.0000	35.6769

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	54.14	18.35	7.52	110,921	110,921
Total	54.14	18.35	7.52	110,921	110,921

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

High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

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	2.9778	2.9778	3.0000e-004	6.0000e-005	3.0037
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.9778	2.9778	3.0000e-004	6.0000e-005	3.0037
NaturalGas Mitigated	4.2000e-004	3.8000e-003	3.1900e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.1329	4.1329	8.0000e-005	8.0000e-005	4.1575
NaturalGas Unmitigated	4.2000e-004	3.8000e-003	3.1900e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.1329	4.1329	8.0000e-005	8.0000e-005	4.1575

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					

High School	77448	4.2000e-004	3.8000e-003	3.1900e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.1329	4.1329	8.0000e-005	8.0000e-005	4.1575
Total		**4.2000e-004**	**3.8000e-003**	**3.1900e-003**	**2.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**4.1329**	**4.1329**	**8.0000e-005**	**8.0000e-005**	**4.1575**

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					
High School	77448	4.2000e-004	3.8000e-003	3.1900e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.1329	4.1329	8.0000e-005	8.0000e-005	4.1575
Total		**4.2000e-004**	**3.8000e-003**	**3.1900e-003**	**2.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**4.1329**	**4.1329**	**8.0000e-005**	**8.0000e-005**	**4.1575**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	22638	2.9778	3.0000e-004	6.0000e-005	3.0037
Total		**2.9778**	**3.0000e-004**	**6.0000e-005**	**3.0037**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	22638	2.9778	3.0000e-004	6.0000e-005	3.0037
Total		**2.9778**	**3.0000e-004**	**6.0000e-005**	**3.0037**

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	0.0186	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	8.0000e-005
Unmitigated	0.0186	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	8.0000e-005

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	2.1900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	8.0000e-005
Total	**0.0186**	**0.0000**	**4.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**8.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.1900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	8.0000e-005
Total	**0.0186**	**0.0000**	**4.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**8.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e

Category	MT/yr			
Mitigated	0.3086	4.5700e-003	1.1000e-004	0.4565
Unmitigated	0.3086	4.5700e-003	1.1000e-004	0.4565

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.139459 / 0.35861	0.3086	4.5700e-003	1.1000e-004	0.4565
Total		**0.3086**	**4.5700e-003**	**1.1000e-004**	**0.4565**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.139459 / 0.35861	0.3086	4.5700e-003	1.1000e-004	0.4565
Total		**0.3086**	**4.5700e-003**	**1.1000e-004**	**0.4565**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1083	0.0655	0.0000	2.7458
Unmitigated	1.1083	0.0655	0.0000	2.7458

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	5.46	1.1083	0.0655	0.0000	2.7458
Total		**1.1083**	**0.0655**	**0.0000**	**2.7458**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	5.46	1.1083	0.0655	0.0000	2.7458
Total		**1.1083**	**0.0655**	**0.0000**	**2.7458**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 3: Cumulative Source Risk Screening Calculations

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

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

INSTRUCTIONS:

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

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

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

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

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

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

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

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	East-West
Side of the Roadway	South
Distance from Roadway	850 feet
Annual Average Daily Traffic (ADT)	30,000

Results

Santa Clara Cou 0

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

2.13 (per million)

Curtner

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

Adjusted for EMFAC2014 for 2018

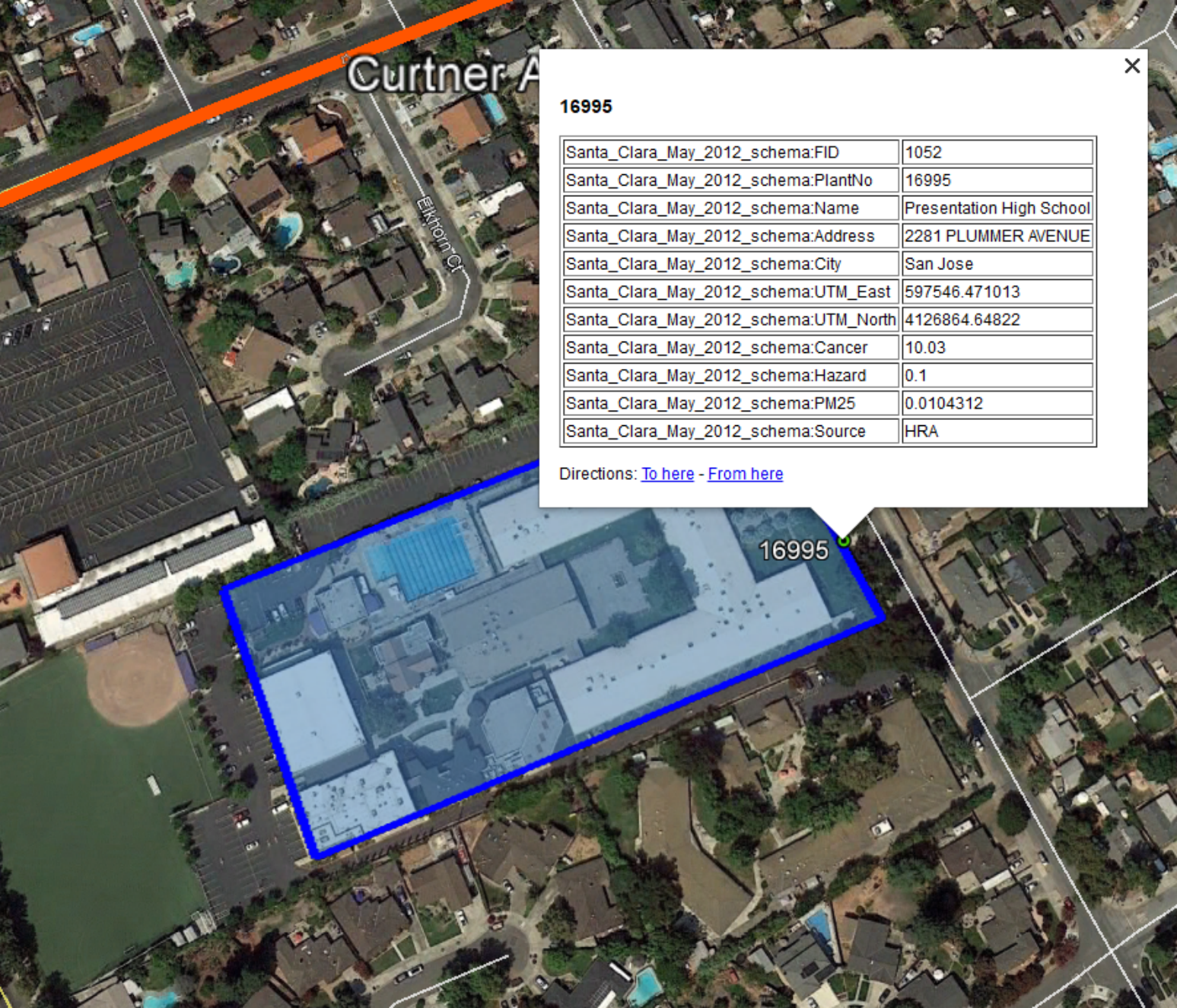
1.46

(per million)

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

Notes and References:

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



16995

Santa_Clara_May_2012_schema:FID	1052
Santa_Clara_May_2012_schema:PlantNo	16995
Santa_Clara_May_2012_schema:Name	Presentation High School
Santa_Clara_May_2012_schema:Address	2281 PLUMMER AVENUE
Santa_Clara_May_2012_schema:City	San Jose
Santa_Clara_May_2012_schema:UTM_East	597546.471013
Santa_Clara_May_2012_schema:UTM_North	4126864.64822
Santa_Clara_May_2012_schema:Cancer	10.03
Santa_Clara_May_2012_schema:Hazard	0.1
Santa_Clara_May_2012_schema:PM25	0.0104312
Santa_Clara_May_2012_schema:Source	HRA

Directions: To here - From here