

Appendix C:

Air Quality and Community Health Risk Assessment

CAMBRIA HOTEL AIR QUALITY AND COMMUNITY HEALTH RISK ASSESSMENT

Pleasant Hill, CA

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Introduction

The purpose of this report is to address air quality and community health risk impacts associated with the Cambria Hotel project located at 3131 and 3195 North Main Street in Pleasant Hill, California. The project proposes to demolish the existing restaurant and to construct a 4-story, 155-room hotel on the 2.5-acre site. The project would also provide 135 parking spaces.

The air quality impacts from this project would be associated with demolition of the existing uses at the site, construction of the new buildings and infrastructure, and operation of the project. Air pollutants associated with construction and operation of the project were predicted using models. In addition, the potential construction health risk impact and the impact of existing toxic air contaminant (TAC) sources affecting the nearby sensitive receptors proposed residences were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).¹

Setting

The project is located in Contra Costa 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 (PM₁₀), 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 (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

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

¹ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

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

Regulatory Agencies

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.² The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

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

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The closest sensitive receptors to the project site are residences west of the western boundary site. There are additional residences north and south of the project site at farther distances. There are also two infant and toddler daycare facilities near the site. The A Small World Infant and Toddler Center at 1641 Oak Park Boulevard is west of the project site and Alice's Montessori Infant and Toddler Care facility at 1041 Hook Avenue is northwest of the project site.

² Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: November 21, 2014.

³ Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines*. May.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 *CEQA Air Quality Guidelines*. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the *CEQA Air Quality Guidelines* in 2017 to include the latest significance thresholds, which were used in this analysis and are summarized in Table 1. The hotel use would not be considered a sensitive receptor, so health risk standards would not apply to the proposed use.

Table 1. Air Quality Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (Exhaust)	82	15
PM _{2.5}	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	Single Sources Within 1,000-foot Zone of Influence	Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)	
Excess Cancer Risk	>10 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual PM _{2.5}	>0.3 µg/m ³	>0.8 µg/m ³	
Note: ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less.			

Construction & Operational Period Emissions: Criteria Air Pollutants

The Bay Area is considered a non-attainment area for ground-level ozone and PM_{2.5} under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM₁₀, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_x), PM₁₀, and PM_{2.5} and apply to both construction period and operational period impacts.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the site assuming full build-out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The model output from CalEEMod is included as *Attachment 2*.

Construction Period Emissions

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. A construction build-out scenario, including equipment list and schedule, was based on information provided by the project applicant.

The proposed project land uses were input into CalEEMod, which included: 98,545-sf and 155 hotel rooms entered as “Hotel” and 135 spaces entered as “Parking Lot”. In addition, 15 tons of building demolition, 100 cubic yards (cy) of exported soil for the grading phase, 15 roundtrip cement hauling trips during building construction, and 90 roundtrip asphalt truck trips during paving was entered into the model.

The construction schedule assumed that the project would be built out over a period of approximately 12 months, beginning in June 2019. Based on the provided construction schedule and equipment usage assumptions, there were an estimated 269 construction workdays. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 2 shows average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. As indicated in Table 2, predicted construction period emissions would not exceed the BAAQMD significance thresholds.

Table 2. Construction Period Emissions

Scenario	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
Total construction emissions (tons)	0.9 tons	2.8 tons	0.1 tons	0.1 tons
Average daily emissions (pounds) ¹	6.6 lbs./day	20.8 lbs./day	0.7 lbs./day	0.7 lbs./day
BAAQMD Thresholds (pounds per day)	54 lbs./day	54 lbs./day	82 lbs./day	54 lbs./day
Exceed Threshold?	No	No	No	No
Notes: ¹ Assumes 269 workdays.				

Additionally, construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices.*

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

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

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Mitigation Measure AQ-1

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

Operational Period Emissions

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

Land Uses

The project land uses were input to CalEEMod, as described above for the construction period modeling.

Model Year

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

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates, which were input to the model using the daily trip generation rate provided in the project trip generation table. The Saturday and Sunday trip rates were assumed to be the weekday rate adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips. The traffic analysis provided project trip generation values for the hotel.⁴ The weekday trip rate used for the project was 8.71, which changed the Saturday trip rate to 8.73 and the Sunday trip rate to 6.34. Note that the weekday trip rate nets out the existing restaurant weekday trips.

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. Indirect emissions from electricity were computed in CalEEMod. The model has a default rate of 641.3 pounds of CO₂ per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. The rate was adjusted to account for PG&E's projected 2020 CO₂ intensity rate. This 2020 rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. The derived 2020 rate for PG&E was estimated at 290 pounds of CO₂ per megawatt of electricity delivered.⁵

⁴ Fehr Peers, *Administrative Draft Transportation Impact Assessment Cambria Hotel Project*, October 2018.

⁵ Pacific Gas & Electric, 2015. *Greenhouse Gas Emission Factors: Guidance for PG&E Customers*. November.

Other Inputs

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

Existing Uses

A CalEEMod model run for existing uses was not developed because the existing restaurant is under the 33,000-sf operational criteria pollutant screening size for a high turnover restaurant. Therefore, it would have little to no measurable emissions that would affect project's operational emissions.

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

Table 3. Operational Emissions

Scenario	ROG	NO _x	PM ₁₀	PM _{2.5}
2021 Project Operational Emissions (tons/year)	0.8 tons	1.6 tons	0.9 tons	0.3 tons
BAAQMD Thresholds (tons /year)	10 tons	10 tons	15 tons	10 tons
Exceed Threshold?	No	No	No	No
2021 Project Operational Emissions (lbs/day) ¹	4.4 lbs.	8.8 lbs.	4.9 lbs.	1.6 lbs.
BAAQMD Thresholds (pounds/day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
Exceed Threshold?	No	No	No	No

Notes: ¹ Assumes 365-day operation.

Operational Community Risk Impacts

Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. When operating, the project would generate automobile traffic and infrequent truck traffic; however, these emissions are anticipated to result in fairly low impacts in terms of TAC or PM_{2.5} exposure and there would be no other operational sources of TAC or PM_{2.5}, so operational sources of health risk would not be substantial and were not further evaluated. No stationary sources of TACs, such as generators, are proposed as part of the project. The hotel use would not introduce new sensitive receptors to the area.

Project Construction Activity

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Although it was concluded in the previous sections that construction exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations, construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents and day care facilities. 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 to nearby sensitive receptors from construction emissions of DPM and PM_{2.5}.⁶ This assessment included dispersion modeling 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

The CalEEMod model provided total annual PM₁₀ exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages of 0.1364 tons (273 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM_{2.5} dust emissions were calculated by CalEEMod as 0.01261 tons (25 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA ISCST3 dispersion model was used to predict DPM and PM_{2.5} concentrations at sensitive receptors (residences) in the vicinity of the project construction area. The ISCST3 dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.⁷ The modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (19.7 feet) was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive PM_{2.5} emissions, a near-ground level release height of 2 meters (6.6 feet) was used for the area source. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. to 4 p.m., when the majority of construction activity would occur.

The modeling used four years of BAAQMD hourly meteorological data (2002-2005) for Concord (the closest location with available data) that was prepared for use with the ISCST3 model by the BAAQMD. Annual DPM and PM_{2.5} concentrations from construction activities during the 2019-2020 period were calculated using the model. DPM and PM_{2.5} concentrations were calculated at nearby sensitive receptors. Receptor heights of 1.5 meters (5 feet) and 4.5 meters (15 feet) were used to represent the breathing heights of residents in nearby single-family homes and apartment buildings on the first, second and third floor levels, respectively.

Predicted Cancer Risk and Hazards

Figure 1 shows the locations where the maximum-modeled DPM and PM_{2.5} concentrations occurred. The maximum concentrations occurred at a residence south of the project site. Using the maximum annual modeled DPM concentration, the maximum increased cancer risk at the

⁶ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

⁷ Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, Version 3.0. May.

location of the maximally exposed individual (MEI) was calculated using BAAQMD recommended methods. The cancer risk calculations are based on applying the BAAQMD recommended age sensitivity factors to the TAC concentrations. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. BAAQMD-recommended exposure parameters were used for the cancer risk calculations, as described in *Attachment 1*. Infant and adult exposures were assumed to occur at all residences through the entire construction period.

Results of this assessment indicate that the maximum increased residential cancer risks without any mitigation or construction emissions control would be 28.4 in one million for an infant exposure and 0.5 in one million for an adult exposure. The maximum increased cancer risk for an infant at a nearby daycare facility would be 3.2 in one million. The maximum residential excess cancer risk would be above the significance threshold of 10.0 in one million. *Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce this impact to a level of less than significant.*

Predicted Annual PM_{2.5} Concentration

The maximum-modeled annual PM_{2.5} concentration, which is based on combined exhaust and fugitive dust emissions, was 0.19 µg/m³. This maximum annual PM_{2.5} concentration would be below the BAAQMD significance threshold of greater than 0.3 µg/m³. The location of the receptor with the maximum PM_{2.5} concentration is shown in Figure 1.

Non-Cancer Hazards

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was 0.173 µg/m³. The maximum computed Hazard Index (HI) based on this DPM concentration is 0.035, which does not exceed the BAAQMD significance criterion of a HI greater than 1.0.

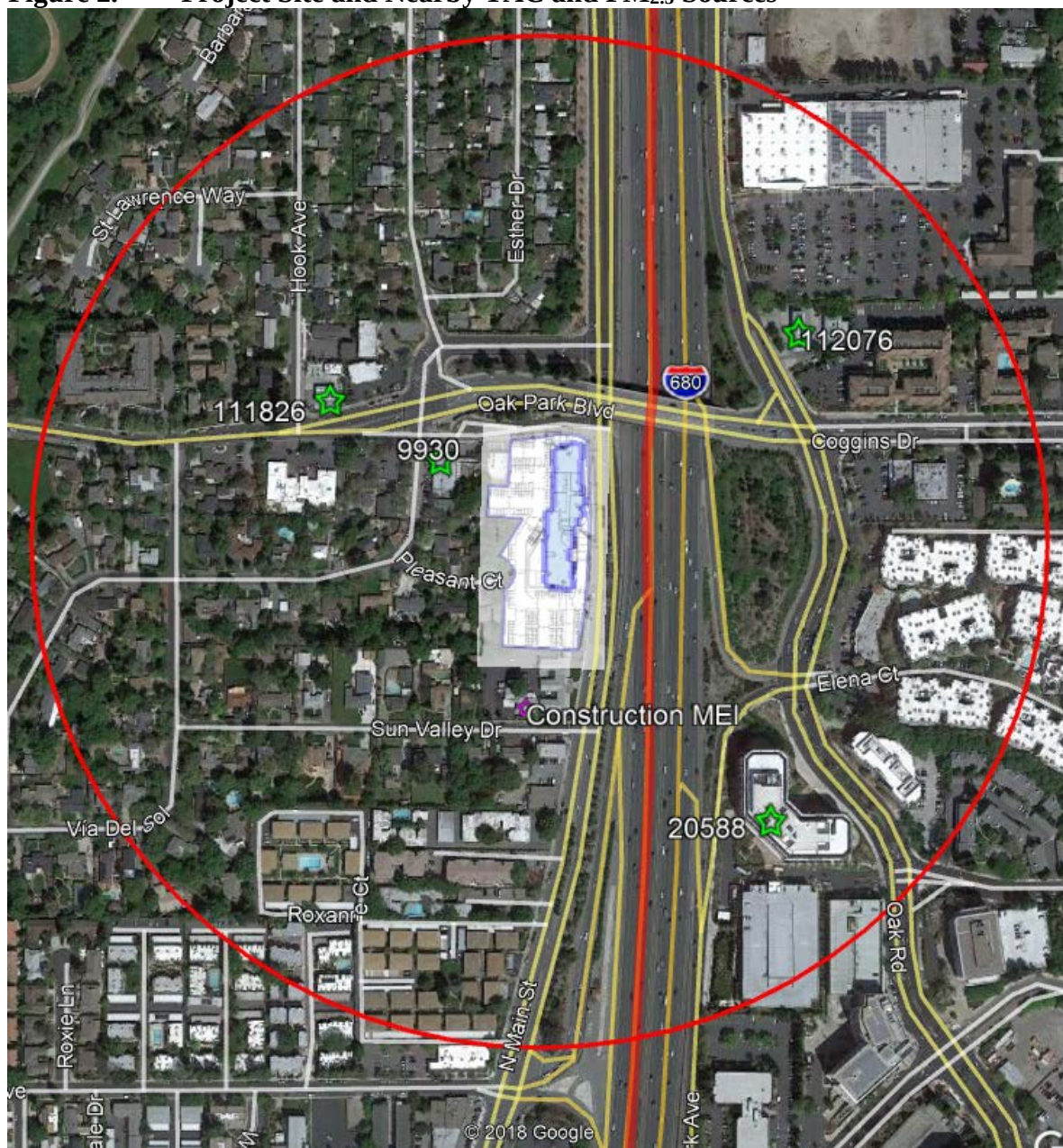
Figure 1. Project Construction Site and Locations of Off-Site Sensitive Receptors and Maximum TAC Impacts



Cumulative Impact on Construction MEI

Cumulative community risk impacts were addressed through evaluation of TAC sources located within 1,000 feet of the construction MEI. These sources include freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicates that traffic on Interstate 680, North Main Street, and Oak Park Boulevard. Other nearby streets are assumed to have less than 10,000 vehicles per day. A review of BAAQMD's stationary source Google Earth map tool identified four stationary sources with the potential to affect the construction MEI. Figure 2 shows the sources affecting the project site and construction MEI. Community risk impacts from these sources upon the construction MEI are reported in Table 4. Details of the modeling and community risk calculations are included in *Attachment 3*.

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



Highways – Interstate 680

BAAQMD provides a *Highway Screening Analysis* Google Earth Map tool to identify estimated risk and hazard impacts from highways throughout the Bay Area. Cumulative risk, hazard, and PM_{2.5} impacts at various distances from the highway are estimated for different segments of the highways. The tool uses the average annual daily traffic (AADT) count, fleet mix and other modeling parameters specific to that segment of the highway. Impacts from Link 1090 (6ft elevation) for Interstate 680, in which the construction MEI was approximately 270 feet west of roadway, were identified.

The cancer risk identified using the BAAQMD tool was adjusted using a factor of 1.3744 to account for new Office of Environmental Health Hazard Assessment (OEHHA) guidance. This

factor was provided by BAAQMD for use with their CEQA screening tools that are used to predict cancer risk.⁸ Estimated cancer risk, PM_{2.5} concentrations, and the non-cancerous hazard index from the highway are in Table 4.

Local Roadways – North Main Street and Oak Park Boulevard

For local roadways, BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Two adjustments were made to the cancer risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates predicted using EMFAC2014 and (2) adjustment of cancer risk to reflect new Office of Environmental Health Hazard Assessment (OEHHA) guidance (see *Attachment 1*).

The calculator uses EMFAC2011 emission rates for the year 2014. Overall, emission rates will decrease by the time the project is constructed and occupied. The project would not 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 2018.

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

The two following roadways were identified as having over 10,000 vehicles per day: North Main Street and Oak Park Boulevard. The average daily traffic (ADT) on North Main Street was estimated to be 18,875 vehicles and the ADT on Oak Park Boulevard was estimated to be 20,690 vehicles. This estimate was based on the peak-hour traffic volumes included in the project's traffic analysis for background plus project conditions.⁹ The AM and PM peak-hour volumes were averaged and then multiplied by 10 to estimate the ADT.

The BAAQMD *Roadway Screening Analysis Calculator* for Contra Costa County was used for both roadways. North Main Street was identified as a north-west directional roadway with the construction MEI 140 feet west of the roadway. Oak Park Boulevard was identified as an east-west directional roadway with the construction MEI 760 feet south of the roadway. Estimated risk values for both roadways are listed in Table 4. Note that BAAQMD has found that non-cancer hazards from all local roadways would be well below the BAAQMD thresholds. Chronic or acute HI for the roadway would be below 0.03.

Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Stationary Source Risk & Hazard Analysis Tool*. This mapping tool uses Google Earth and identified the location of four stationary sources and their estimated risk and hazard impacts. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. They provided updated risk levels, emissions and

⁸ Correspondence with Alison Kirk, BAAQMD, November 23, 2015.

⁹ Fehr Peers. *Administrative Draft Transportation Impact Assessment*. October 2018.

adjustments to account for new OEHHA guidance¹⁰. The adjusted risk values were then adjusted with the appropriate distance multiplier values provided by BAAQMD or the emissions information was used in refined modeling.

Four stationary sources were identified (Plant #111826, #9930, #112076, and #20588) with two sources being gas dispensing facilities, one source being diesel generators, and one source being an auto body coating operation. The emissions data for all these stationary sources were provided by BAAQMD and adjusted for distance based on BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines* or *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities* when appropriate. Concentration levels and community risk impacts from these sources upon the project are reported in Table 4.

Summary of Construction Health Risk Impacts

Table 4 reports both the project and cumulative community risk impacts. Without mitigation, the project would have a *significant* impact with respect to community risk caused by project construction activities, since the maximum cancer risk is above the single-source thresholds of 10.0 per million for cancer risk. As shown in Table 4, the combined annual cancer risk, PM_{2.5} concentrations and Hazard risk values, which includes unmitigated and mitigated, would not exceed the cumulative threshold. *Attachment 4* includes the construction emission calculations and source information used in the modeling and the cancer risk calculations.

Table 4. Impacts from Combined Sources at Construction MEI

Source	Maximum Cancer Risk (per million)	PM _{2.5} concentration (µg/m ³)	Hazard Index
Project Construction Unmitigated	28.4 (infant)	0.19	0.03
Mitigated	3.4 (infant)	0.03	<0.01
BAAQMD Single-Source Threshold	>10.0	>0.3	>1.0
Significant?			
Unmitigated	Yes	No	No
Mitigated	No	No	No
Interstate 680 - Link 1090 (6ft elevation) at 270 feet	67.1	0.37	0.04
North Main Street at 140 feet, ADT 18,875	2.5	0.01	<0.03
Oak Park Boulevard at 760 feet, ADT 20,690	0.6	0.02	<0.03
Plant #111826 (Gas Station) at 900 feet	0.5	-	<0.01
Plant #9930 (Auto Body Coating Operation) at 575 feet	-	-	<0.01
Plant #112076 (Gas Station) at 1000 feet	0.4	-	<0.01
Plant #20588 (Diesel Generator) at 600 feet	0.1	<0.01	0.01
Combined Sources Unmitigated	99.6 (infant)	0.60	0.17
Mitigated	74.6 (infant)	0.44	0.15
BAAQMD Cumulative Source Threshold	>100	>0.8	>10.0
Significant?			
Unmitigated	No	No	No
Mitigated	No	No	No

¹⁰ Correspondence with Areana Flores, BAAQMD, August 21, 2018.

Mitigation Related to Construction Health Risk

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 65-percent reduction in DPM exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:

- All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 3 engines that include CARB-certified Level 3 Diesel Particulate Filters¹¹ or equivalent. Equipment that meets U.S. EPA Tier 4 standards for particulate matter or use of equipment that is electrically powered or uses non-diesel fuels would meet this requirement.

Effectiveness of Mitigation Measure AQ-2

The computed maximum increased lifetime residential cancer risk from construction, assuming infant exposure, would be 3.4 in one million or less with implementation of Mitigation Measure AQ-2. As a result, impacts would be reduced to *less than significant* with respect to community risk caused by construction activities.

Supporting Documentation

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

Attachment 2 includes the CalEEMod output for project construction TAC emissions. Also included are any modeling assumptions.

Attachment 3 includes the screening community risk calculations from sources affecting the construction MEI.

Attachment 4 is the construction health risk assessment. AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

¹¹ See <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.¹² 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.¹³ 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.¹⁴ 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 for children 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

¹² 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.

¹³ CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

¹⁴ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

or greater assuming 100 percent exposure (FAH = 1.0). An analysis to determine health risk at area schools has not been performed.

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

$$\text{Cancer Risk (per million)} = \text{CPF} \times \text{Inhalation Dose} \times \text{ASF} \times \text{ED/AT} \times \text{FAH} \times 10^6$$

Where:

CPF = Cancer potency factor (mg/kg-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)

$$\text{Inhalation Dose} = C_{\text{air}} \times \text{DBR} \times A \times (\text{EF}/365) \times 10^{-6}$$

Where:

C_{air} = concentration in air (µg/m³)
 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 →	3 rd 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		1.0	1.0	1.0	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 (µg/m³).

Annual PM_{2.5} Concentrations

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

Attachment 2: CalEEMod Modeling Output

Project Name: Cambria Hotel								Complete ALL Portions in Yellow	
	See Equipment Type TAB for type, horsepower and load factor								
	Project Size				155 Rooms	2.5 total project acres disturbed			
					98,545 s.f. residential				Pile Driving? No
					s.f. retail				
					s.f. office/commercial				
					s.f. other, specify:				
					s.f. parking garage	spaces			
					s.f. parking lot	135 spaces			
	Construction Hours				7:00 am to	4:00 pm			
Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments	
	Demolition	Start Date:	6/4/2019	Total phase:	20			Overall Import/Export Volumes	
		End Date:	7/1/2019						
1	Concrete/Industrial Saws	81	0.73	8	20	8	160	Demolition Volume	
	Excavators	162	0.38			0	0	Square footage of buildings to be demolished	
1	Rubber-Tired Dozers	247	0.4	8	20	8	160	(or total tons to be hauled)	
3	Tractors/Loaders/Backhoes	97	0.37	8	20	8	480	17,000 square feet or	
								15 Hauling volume (tons)	
	Site Preparation	Start Date:	7/2/2019	Total phase:	3			Any pavement demolished and hauled? No reused onsite	
		End Date:	7/4/2019						
1	Graders	187	0.41	8	3	8	24		
1	Scrapers	367	0.48	8	3	8	24		
1	Tractors/Loaders/Backhoes	97	0.37	7	3	7	21		
	Grading / Excavation	Start Date:	7/5/2019	Total phase:	6				
		End Date:	7/12/2019					Soil Hauling Volume	
	Excavators	162	0.38			0	0	Export volume = 100 cubic yards?	
1	Graders	187	0.41	8	6	8	48	Import volume = 0 cubic yards0	
1	Rubber Tired Dozers	247	0.4	8	6	8	48		
1	Tractors/Loaders/Backhoes	97	0.37	8	6	8	48		
	Other Equipment?								
	Trenching/Foundation	Start Date:	7/15/2019	Total phase:					
		End Date:	8/1/2019						
	Tractor/Loader/Backhoe	97	0.37			#DIV/0!	0		
	Excavators	162	0.38			#DIV/0!	0		
	Other Equipment?								
	Building - Exterior	Start Date:	7/13/2019	Total phase:	220			Cement Trucks? 15 Total Round-Trips	
		End Date:	5/15/2020						
1	Cranes	231	0.29	8	220	8	1760	Electric? (Y/N) N Otherwise assumed diesel	
2	Forklifts	89	0.2	7	220	7	3080	Liquid Propane (LPG)? (Y/N) N Otherwise Assumed diesel	
1	Generator Sets	84	0.74	8	220	8	1760	temporary line power? (Y/N) yes temporary power lines, no generator	
1	Tractors/Loaders/Backhoes	97	0.37	6	220	6	1320	otherwise, assume diesel generator	
3	Welders	46	0.45	8	220	8	5280		
	Other Equipment?								
	Building - Interior/Architectural Coating	Start Date:	5/30/2020	Total phase:	1				
		End Date:	6/12/2020						
1	Air Compressors	78	0.48	6	10	60	60		
	Aerial Lift	62	0.31			0	0		
	Other Equipment?								
	Paving	Start Date:	5/16/2020	Total phase:	10				
		Start Date:	5/29/2020						
1	Cement and Mortar Mixers	9	0.56	8	10	8	80		
1	Pavers	130	0.42	8	10	8	80	Asphalt? ? cubic yards or 90 round trips?	
1	Paving Equipment	132	0.36	8	10	8	80		
2	Rollers	80	0.38	8	10	8	160		
1	Tractors/Loaders/Backhoes	97	0.37	8	10	8	80		
	Other Equipment?								

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

18-154 Cambria Hotel Pleasant Hill AQ

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	135.00	Space	0.00	54,000.00	0
Hotel	155.00	Room	2.50	98,545.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

Project Characteristics - PG&E 2020 rate

Land Use - Applicant Construction Sheet

Construction Phase - Applicant Construction Schedule

Off-road Equipment -

Trips and VMT - 30 one-way cement truck trips for construction, 180 one-way trips for paving

Demolition - Applicant provided info, 15 tons of demo

Grading - Applicant provided info

Water And Wastewater - 100% aerobic

Vehicle Trips - Weekday trip rate: 8.71, Sat: 8.73, Sun: 6.34

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

Table Name	Column Name	Default Value	New Value
tblGrading	MaterialExported	0.00	100.00
tblLandUse	LandUseSquareFeet	225,060.00	98,545.00
tblLandUse	LotAcreage	1.21	0.00
tblLandUse	LotAcreage	5.17	2.50
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripNumber	13.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	180.00
tblVehicleTrips	ST_TR	8.19	8.73
tblVehicleTrips	SU_TR	5.95	6.34
tblVehicleTrips	WD_TR	8.17	8.71
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

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					
2019	0.2136	1.7215	1.3288	2.6700e-003	0.0652	0.0873	0.1525	0.0221	0.0831	0.1051	0.0000	233.4609	233.4609	0.0393	0.0000	234.4435
2020	0.6609	1.0971	0.9219	1.9900e-003	0.0358	0.0513	0.0871	9.7200e-003	0.0491	0.0588	0.0000	172.8550	172.8550	0.0257	0.0000	173.4965
Maximum	0.6609	1.7215	1.3288	2.6700e-003	0.0652	0.0873	0.1525	0.0221	0.0831	0.1051	0.0000	233.4609	233.4609	0.0393	0.0000	234.4435

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					
2019	0.2136	1.7215	1.3288	2.6700e-003	0.0652	0.0873	0.1525	0.0221	0.0831	0.1051	0.0000	233.4607	233.4607	0.0393	0.0000	234.4433
2020	0.6609	1.0971	0.9219	1.9900e-003	0.0358	0.0513	0.0871	9.7200e-003	0.0491	0.0588	0.0000	172.8549	172.8549	0.0257	0.0000	173.4963
Maximum	0.6609	1.7215	1.3288	2.6700e-003	0.0652	0.0873	0.1525	0.0221	0.0831	0.1051	0.0000	233.4607	233.4607	0.0393	0.0000	234.4433

[illegible]

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-4-2019	9-3-2019	0.8563	0.8563
2	9-4-2019	12-3-2019	0.8205	0.8205
3	12-4-2019	3-3-2020	0.7733	0.7733
4	3-4-2020	6-3-2020	0.8837	0.8837
5	6-4-2020	9-3-2020	0.3440	0.3440
		Highest	0.8837	0.8837

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	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Energy	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	300.3886	300.3886	0.0145	5.7600e-003	302.4688
Mobile	0.3268	1.4221	3.4375	0.0109	0.9210	9.6500e-003	0.9307	0.2472	9.0300e-003	0.2562	0.0000	1,001.6794	1,001.6794	0.0394	0.0000	1,002.6642
Waste						0.0000	0.0000		0.0000	0.0000	17.2258	0.0000	17.2258	1.0180	0.0000	42.6762
Water						0.0000	0.0000		0.0000	0.0000	1.3911	2.9997	4.3908	5.0900e-003	3.0900e-003	5.4380
Total	0.7873	1.5985	3.5883	0.0120	0.9210	0.0231	0.9441	0.2472	0.0224	0.2696	18.6169	1,305.0729	1,323.6898	1.0770	8.8500e-003	1,353.2527

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

2.2 Overall Operational**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	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Energy	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	300.3886	300.3886	0.0145	5.7600e-003	302.4688
Mobile	0.3268	1.4221	3.4375	0.0109	0.9210	9.6500e-003	0.9307	0.2472	9.0300e-003	0.2562	0.0000	1,001.6794	1,001.6794	0.0394	0.0000	1,002.6642
Waste						0.0000	0.0000		0.0000	0.0000	17.2258	0.0000	17.2258	1.0180	0.0000	42.6762
Water						0.0000	0.0000		0.0000	0.0000	1.3911	2.9997	4.3908	5.0900e-003	3.0900e-003	5.4380
Total	0.7873	1.5985	3.5883	0.0120	0.9210	0.0231	0.9441	0.2472	0.0224	0.2696	18.6169	1,305.0729	1,323.6898	1.0770	8.8500e-003	1,353.2527

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

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2019	7/1/2019	5	20	
2	Site Preparation	Site Preparation	7/2/2019	7/4/2019	5	3	
3	Grading	Grading	7/5/2019	7/12/2019	5	6	
4	Building Construction	Building Construction	7/13/2019	5/15/2020	5	220	
5	Trenching/Foundation	Trenching	7/15/2019	8/1/2019	5	14	
6	Paving	Paving	5/16/2020	5/29/2020	5	10	
7	Architectural Coating	Architectural Coating	5/30/2020	6/12/2020	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 147,818; Non-Residential Outdoor: 49,273; Striped Parking Area: 3,240 (Architectural Coating – sqft)

OffRoad Equipment

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Trenching/Foundation	Excavators	1	7.00	158	0.38
Trenching/Foundation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	64.00	25.00	30.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Foundation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	180.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-004	0.0000	1.6000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0230	0.2268	0.1489	2.4000e-004		0.0129	0.0129		0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524
Total	0.0230	0.2268	0.1489	2.4000e-004	1.6000e-004	0.0129	0.0130	2.0000e-005	0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.2 Demolition - 2019**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	1.6000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0383	0.0383	0.0000	0.0000	0.0383
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.6000e-004	3.6500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9342	0.9342	3.0000e-005	0.0000	0.9349
Total	4.8000e-004	5.2000e-004	3.6800e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9725	0.9725	3.0000e-005	0.0000	0.9732

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					1.6000e-004	0.0000	1.6000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0230	0.2268	0.1489	2.4000e-004		0.0129	0.0129		0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524
Total	0.0230	0.2268	0.1489	2.4000e-004	1.6000e-004	0.0129	0.0130	2.0000e-005	0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.2 Demolition - 2019**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	1.6000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0383	0.0383	0.0000	0.0000	0.0383
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.6000e-004	3.6500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9342	0.9342	3.0000e-005	0.0000	0.9349
Total	4.8000e-004	5.2000e-004	3.6800e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9725	0.9725	3.0000e-005	0.0000	0.9732

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0323	0.0179	4.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281
Total	2.6300e-003	0.0323	0.0179	4.0000e-005	2.3900e-003	1.2800e-003	3.6700e-003	2.6000e-004	1.1800e-003	1.4400e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.3 Site Preparation - 2019**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	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0862	0.0862	0.0000	0.0000	0.0863
Total	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0862	0.0862	0.0000	0.0000	0.0863

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0323	0.0179	4.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281
Total	2.6300e-003	0.0323	0.0179	4.0000e-005	2.3900e-003	1.2800e-003	3.6700e-003	2.6000e-004	1.1800e-003	1.4400e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.3 Site Preparation - 2019**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	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0862	0.0862	0.0000	0.0000	0.0863
Total	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0862	0.0862	0.0000	0.0000	0.0863

3.4 Grading - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0682	0.0305	6.0000e-005		3.2200e-003	3.2200e-003		2.9600e-003	2.9600e-003	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993
Total	6.0900e-003	0.0682	0.0305	6.0000e-005	0.0197	3.2200e-003	0.0229	0.0101	2.9600e-003	0.0131	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8700e-003	3.4000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.4595	0.4595	2.0000e-005	0.0000	0.4601
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	8.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2156	0.2156	1.0000e-005	0.0000	0.2157
Total	1.6000e-004	1.9500e-003	1.1800e-003	0.0000	3.4000e-004	1.0000e-005	3.5000e-004	9.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.6751	0.6751	3.0000e-005	0.0000	0.6758

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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0682	0.0305	6.0000e-005		3.2200e-003	3.2200e-003		2.9600e-003	2.9600e-003	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993
Total	6.0900e-003	0.0682	0.0305	6.0000e-005	0.0197	3.2200e-003	0.0229	0.0101	2.9600e-003	0.0131	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.4 Grading - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.8700e-003	3.4000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.4595	0.4595	2.0000e-005	0.0000	0.4601
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	8.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2156	0.2156	1.0000e-005	0.0000	0.2157
Total	1.6000e-004	1.9500e-003	1.1800e-003	0.0000	3.4000e-004	1.0000e-005	3.5000e-004	9.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.6751	0.6751	3.0000e-005	0.0000	0.6758

3.5 Building Construction - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1560	1.1535	0.9305	1.5300e-003		0.0665	0.0665		0.0637	0.0637	0.0000	127.9501	127.9501	0.0266	0.0000	128.6156
Total	0.1560	1.1535	0.9305	1.5300e-003		0.0665	0.0665		0.0637	0.0637	0.0000	127.9501	127.9501	0.0266	0.0000	128.6156

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.5 Building Construction - 2019**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	2.5900e-003	4.7000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.6371	0.6371	3.0000e-005	0.0000	0.6378
Vendor	7.5600e-003	0.1940	0.0506	4.2000e-004	0.0100	1.4300e-003	0.0115	2.9000e-003	1.3700e-003	4.2700e-003	0.0000	40.0100	40.0100	2.1300e-003	0.0000	40.0633
Worker	0.0144	0.0107	0.1097	3.1000e-004	0.0310	2.1000e-004	0.0312	8.2300e-003	1.9000e-004	8.4300e-003	0.0000	28.0559	28.0559	7.7000e-004	0.0000	28.0751
Total	0.0220	0.2073	0.1608	7.4000e-004	0.0412	1.6500e-003	0.0429	0.0112	1.5700e-003	0.0128	0.0000	68.7030	68.7030	2.9300e-003	0.0000	68.7761

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	0.1560	1.1535	0.9305	1.5300e-003		0.0665	0.0665		0.0637	0.0637	0.0000	127.9500	127.9500	0.0266	0.0000	128.6154
Total	0.1560	1.1535	0.9305	1.5300e-003		0.0665	0.0665		0.0637	0.0637	0.0000	127.9500	127.9500	0.0266	0.0000	128.6154

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.5 Building Construction - 2019**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	2.5900e-003	4.7000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.6371	0.6371	3.0000e-005	0.0000	0.6378
Vendor	7.5600e-003	0.1940	0.0506	4.2000e-004	0.0100	1.4300e-003	0.0115	2.9000e-003	1.3700e-003	4.2700e-003	0.0000	40.0100	40.0100	2.1300e-003	0.0000	40.0633
Worker	0.0144	0.0107	0.1097	3.1000e-004	0.0310	2.1000e-004	0.0312	8.2300e-003	1.9000e-004	8.4300e-003	0.0000	28.0559	28.0559	7.7000e-004	0.0000	28.0751
Total	0.0220	0.2073	0.1608	7.4000e-004	0.0412	1.6500e-003	0.0429	0.0112	1.5700e-003	0.0128	0.0000	68.7030	68.7030	2.9300e-003	0.0000	68.7761

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	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7458	101.7458	0.0207	0.0000	102.2620
Total	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7458	101.7458	0.0207	0.0000	102.2620

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	1.9400e-003	3.7000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.3000e-004	6.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5067	0.5067	2.0000e-005	0.0000	0.5072
Vendor	4.9100e-003	0.1405	0.0361	3.3000e-004	8.0600e-003	7.2000e-004	8.7700e-003	2.3300e-003	6.9000e-004	3.0200e-003	0.0000	31.9544	31.9544	1.5700e-003	0.0000	31.9936
Worker	0.0105	7.6100e-003	0.0788	2.4000e-004	0.0249	1.7000e-004	0.0250	6.6100e-003	1.5000e-004	6.7700e-003	0.0000	21.8200	21.8200	5.4000e-004	0.0000	21.8334
Total	0.0155	0.1501	0.1153	5.8000e-004	0.0332	9.0000e-004	0.0340	9.0000e-003	8.5000e-004	9.8500e-003	0.0000	54.2811	54.2811	2.1300e-003	0.0000	54.3342

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	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7456	101.7456	0.0207	0.0000	102.2619
Total	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7456	101.7456	0.0207	0.0000	102.2619

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	1.9400e-003	3.7000e-004	1.0000e-005	2.2000e-004	1.0000e-005	2.3000e-004	6.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5067	0.5067	2.0000e-005	0.0000	0.5072
Vendor	4.9100e-003	0.1405	0.0361	3.3000e-004	8.0600e-003	7.2000e-004	8.7700e-003	2.3300e-003	6.9000e-004	3.0200e-003	0.0000	31.9544	31.9544	1.5700e-003	0.0000	31.9936
Worker	0.0105	7.6100e-003	0.0788	2.4000e-004	0.0249	1.7000e-004	0.0250	6.6100e-003	1.5000e-004	6.7700e-003	0.0000	21.8200	21.8200	5.4000e-004	0.0000	21.8334
Total	0.0155	0.1501	0.1153	5.8000e-004	0.0332	9.0000e-004	0.0340	9.0000e-003	8.5000e-004	9.8500e-003	0.0000	54.2811	54.2811	2.1300e-003	0.0000	54.3342

3.6 Trenching/Foundation - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0200e-003	0.0307	0.0341	5.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	4.5489	4.5489	1.4400e-003	0.0000	4.5849
Total	3.0200e-003	0.0307	0.0341	5.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	4.5489	4.5489	1.4400e-003	0.0000	4.5849

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.6 Trenching/Foundation - 2019**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	1.3000e-004	1.0000e-004	9.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2515	0.2515	1.0000e-005	0.0000	0.2517
Total	1.3000e-004	1.0000e-004	9.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2515	0.2515	1.0000e-005	0.0000	0.2517

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0200e-003	0.0307	0.0341	5.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	4.5489	4.5489	1.4400e-003	0.0000	4.5849
Total	3.0200e-003	0.0307	0.0341	5.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	4.5489	4.5489	1.4400e-003	0.0000	4.5849

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.6 Trenching/Foundation - 2019**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	1.3000e-004	1.0000e-004	9.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2515	0.2515	1.0000e-005	0.0000	0.2517
Total	1.3000e-004	1.0000e-004	9.8000e-004	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2515	0.2515	1.0000e-005	0.0000	0.2517

3.7 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	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.7 Paving - 2020**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	7.4000e-004	0.0261	4.9200e-003	7.0000e-005	1.5200e-003	9.0000e-005	1.6100e-003	4.2000e-004	8.0000e-005	5.0000e-004	0.0000	6.8245	6.8245	3.0000e-004	0.0000	6.8321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5218	0.5218	1.0000e-005	0.0000	0.5222
Total	9.9000e-004	0.0263	6.8000e-003	8.0000e-005	2.1100e-003	9.0000e-005	2.2100e-003	5.8000e-004	8.0000e-005	6.6000e-004	0.0000	7.3464	7.3464	3.1000e-004	0.0000	7.3543

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.7 Paving - 2020**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	7.4000e-004	0.0261	4.9200e-003	7.0000e-005	1.5200e-003	9.0000e-005	1.6100e-003	4.2000e-004	8.0000e-005	5.0000e-004	0.0000	6.8245	6.8245	3.0000e-004	0.0000	6.8321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.8000e-004	1.8800e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5218	0.5218	1.0000e-005	0.0000	0.5222
Total	9.9000e-004	0.0263	6.8000e-003	8.0000e-005	2.1100e-003	9.0000e-005	2.2100e-003	5.8000e-004	8.0000e-005	6.6000e-004	0.0000	7.3464	7.3464	3.1000e-004	0.0000	7.3543

3.8 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.5263	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.8 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6300e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4523	0.4523	1.0000e-005	0.0000	0.4525
Total	2.2000e-004	1.6000e-004	1.6300e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4523	0.4523	1.0000e-005	0.0000	0.4525

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	0.5251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.5263	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

3.8 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6300e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4523	0.4523	1.0000e-005	0.0000	0.4525
Total	2.2000e-004	1.6000e-004	1.6300e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4523	0.4523	1.0000e-005	0.0000	0.4525

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.3268	1.4221	3.4375	0.0109	0.9210	9.6500e-003	0.9307	0.2472	9.0300e-003	0.2562	0.0000	1,001.6794	1,001.6794	0.0394	0.0000	1,002.6642
Unmitigated	0.3268	1.4221	3.4375	0.0109	0.9210	9.6500e-003	0.9307	0.2472	9.0300e-003	0.2562	0.0000	1,001.6794	1,001.6794	0.0394	0.0000	1,002.6642

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,350.05	1,353.15	982.70	2,466,137	2,466,137
Parking Lot	0.00	0.00	0.00		
Total	1,350.05	1,353.15	982.70	2,466,137	2,466,137

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.582298	0.039109	0.186022	0.123408	0.017184	0.005083	0.010615	0.023794	0.001605	0.001810	0.005454	0.002746	0.000871
Parking Lot	0.582298	0.039109	0.186022	0.123408	0.017184	0.005083	0.010615	0.023794	0.001605	0.001810	0.005454	0.002746	0.000871

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

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	108.3921	108.3921	0.0108	2.2400e-003	109.3314
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	108.3921	108.3921	0.0108	2.2400e-003	109.3314
NaturalGas Mitigated	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374
NaturalGas Unmitigated	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

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					
Hotel	3.59788e+006	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374

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					
Hotel	3.59788e+006	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	805113	105.9060	0.0106	2.1900e-003	106.8237
Parking Lot	18900	2.4861	2.5000e-004	5.0000e-005	2.5077
Total		108.3921	0.0108	2.2400e-003	109.3314

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	805113	105.9060	0.0106	2.1900e-003	106.8237
Parking Lot	18900	2.4861	2.5000e-004	5.0000e-005	2.5077
Total		108.3921	0.0108	2.2400e-003	109.3314

6.0 Area Detail**6.1 Mitigation Measures Area**

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Unmitigated	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3884					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Total	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

6.2 Area by SubCategory**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	0.0525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3884					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Total	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3908	5.0900e-003	3.0900e-003	5.4380
Unmitigated	4.3908	5.0900e-003	3.0900e-003	5.4380

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.93185 / 0.436872	4.3908	5.0900e-003	3.0900e-003	5.4380
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.3908	5.0900e-003	3.0900e-003	5.4380

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.93185 / 0.436872	4.3908	5.0900e-003	3.0900e-003	5.4380
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.3908	5.0900e-003	3.0900e-003	5.4380

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.2258	1.0180	0.0000	42.6762
Unmitigated	17.2258	1.0180	0.0000	42.6762

18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	84.86	17.2258	1.0180	0.0000	42.6762
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		17.2258	1.0180	0.0000	42.6762

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	84.86	17.2258	1.0180	0.0000	42.6762
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		17.2258	1.0180	0.0000	42.6762

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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18-154 Cambria Hotel Pleasant Hill AQ - Contra Costa County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

18-154 Cambria Hotel Pleasant Hill TAC - Contra Costa County, Annual

18-154 Cambria Hotel Pleasant Hill TAC

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	155.00	Room	2.50	98,545.00	0
Parking Lot	135.00	Space	0.00	54,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 rate

Land Use - Applicant Construction Sheet

Construction Phase - Applicant Construction Schedule

Grading - Applicant provided info

Demolition - Applicant provided info, 15 tons of demo

Trips and VMT - 30 one-way cement truck trips for construction, 180 one-way trips for paving, TAC 1 mile trips

Water And Wastewater - 100% aerobic

Off-road Equipment -

Energy Use -

Construction Off-road Equipment Mitigation - BMPs, Tier 3 lvl 3

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblGrading	MaterialExported	0.00	100.00
tblLandUse	LandUseSquareFeet	225,060.00	98,545.00
tblLandUse	LotAcreage	5.17	2.50
tblLandUse	LotAcreage	1.21	0.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00

tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	13.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	180.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1994	1.6243	1.2240	2.0900e-003	0.0267	0.0859	0.1126	0.0116	0.0818	0.0934	0.0000	178.7188	178.7188	0.0381	0.0000	179.6703
2020	0.6506	1.0154	0.8441	1.4800e-003	3.6600e-003	0.0505	0.0541	1.0100e-003	0.0483	0.0493	0.0000	124.5862	124.5862	0.0246	0.0000	125.2016
Maximum	0.6506	1.6243	1.2240	2.0900e-003	0.0267	0.0859	0.1126	0.0116	0.0818	0.0934	0.0000	178.7188	178.7188	0.0381	0.0000	179.6703

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					
2019	0.0615	1.1388	1.2515	2.0900e-003	0.0145	9.4300e-003	0.0239	3.5700e-003	9.4100e-003	0.0130	0.0000	178.7186	178.7186	0.0381	0.0000	179.6701
2020	0.5689	0.8133	0.8750	1.4800e-003	3.6600e-003	6.6600e-003	0.0103	1.0100e-003	6.6500e-003	7.6600e-003	0.0000	124.5861	124.5861	0.0246	0.0000	125.2015
Maximum	0.5689	1.1388	1.2515	2.0900e-003	0.0145	9.4300e-003	0.0239	3.5700e-003	9.4100e-003	0.0130	0.0000	178.7186	178.7186	0.0381	0.0000	179.6701

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	25.84	26.05	-2.82	0.00	40.23	88.20	79.47	63.74	87.66	85.54	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-4-2019	9-3-2019	0.8218	0.5057
2	9-4-2019	12-3-2019	0.7616	0.5298
3	12-4-2019	3-3-2020	0.7194	0.5269

4	3-4-2020	6-3-2020	0.8275	0.6689
5	6-4-2020	9-3-2020	0.3438	0.3422
		Highest	0.8275	0.6689

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	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Energy	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	300.3886	300.3886	0.0145	5.7600e-003	302.4688
Mobile	0.3066	1.3340	3.2246	0.0103	0.8640	9.0500e-003	0.8731	0.2318	8.4700e-003	0.2403	0.0000	939.6512	939.6512	0.0370	0.0000	940.5749
Waste						0.0000	0.0000		0.0000	0.0000	17.2258	0.0000	17.2258	1.0180	0.0000	42.6762
Water						0.0000	0.0000		0.0000	0.0000	1.3911	2.9997	4.3908	5.0900e-003	3.0900e-003	5.4380
Total	0.7671	1.5104	3.3754	0.0113	0.8640	0.0225	0.8865	0.2318	0.0219	0.2537	18.6169	1,243.0447	1,261.6616	1.0746	8.8500e-003	1,291.1635

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	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Energy	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	300.3886	300.3886	0.0145	5.7600e-003	302.4688
Mobile	0.3066	1.3340	3.2246	0.0103	0.8640	9.0500e-003	0.8731	0.2318	8.4700e-003	0.2403	0.0000	939.6512	939.6512	0.0370	0.0000	940.5749

Waste						0.0000	0.0000		0.0000	0.0000	17.2258	0.0000	17.2258	1.0180	0.0000	42.6762
Water						0.0000	0.0000		0.0000	0.0000	1.3911	2.9997	4.3908	5.0900e-003	3.0900e-003	5.4380
Total	0.7671	1.5104	3.3754	0.0113	0.8640	0.0225	0.8865	0.2318	0.0219	0.2537	18.6169	1,243.0447	1,261.6616	1.0746	8.8500e-003	1,291.1635

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2019	7/1/2019	5	20	
2	Site Preparation	Site Preparation	7/2/2019	7/4/2019	5	3	
3	Grading	Grading	7/5/2019	7/12/2019	5	6	
4	Building Construction	Building Construction	7/13/2019	5/15/2020	5	220	
5	Trenching/Foundation	Trenching	7/15/2019	8/1/2019	5	14	
6	Paving	Paving	5/16/2020	5/29/2020	5	10	
7	Architectural Coating	Architectural Coating	5/30/2020	6/12/2020	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 147,818; Non-Residential Outdoor: 49,273; Striped Parking Area:

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	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

Site Preparation	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching/Foundation	Excavators	1	7.00	158	0.38
Trenching/Foundation	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	1.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	12.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	64.00	25.00	30.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	180.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching/Foundation	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 DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-004	0.0000	1.6000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0230	0.2268	0.1489	2.4000e-004		0.0129	0.0129		0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524
Total	0.0230	0.2268	0.1489	2.4000e-004	1.6000e-004	0.0129	0.0130	2.0000e-005	0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524

Unmitigated Construction Off-Site

[illegible]

Worker	1.7000e-004	8.0000e-005	1.0000e-003	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1113	0.1113	1.0000e-005	0.0000	0.1114
Total	1.7000e-004	1.3000e-004	1.0100e-003	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1178	0.1178	1.0000e-005	0.0000	0.1179

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.0000e-005	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6200e-003	0.1210	0.1542	2.4000e-004		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524
Total	5.6200e-003	0.1210	0.1542	2.4000e-004	7.0000e-005	1.0800e-003	1.1500e-003	1.0000e-005	1.0800e-003	1.0900e-003	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524

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	5.0000e-005	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.4700e-003	6.4700e-003	0.0000	0.0000	6.5000e-003
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	8.0000e-005	1.0000e-003	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1113	0.1113	1.0000e-005	0.0000	0.1114
Total	1.7000e-004	1.3000e-004	1.0100e-003	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1178	0.1178	1.0000e-005	0.0000	0.1179

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0323	0.0179	4.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281
Total	2.6300e-003	0.0323	0.0179	4.0000e-005	2.3900e-003	1.2800e-003	3.6700e-003	2.6000e-004	1.1800e-003	1.4400e-003	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0103	0.0103	0.0000	0.0000	0.0103
Total	2.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0103	0.0103	0.0000	0.0000	0.0103

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					1.0700e-003	0.0000	1.0700e-003	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	0.0178	0.0205	4.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281
Total	9.0000e-004	0.0178	0.0205	4.0000e-005	1.0700e-003	1.1000e-004	1.1800e-003	6.0000e-005	1.1000e-004	1.7000e-004	0.0000	3.3020	3.3020	1.0400e-003	0.0000	3.3281

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0103	0.0103	0.0000	0.0000	0.0103
Total	2.0000e-005	1.0000e-005	9.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0103	0.0103	0.0000	0.0000	0.0103

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0682	0.0305	6.0000e-005		3.2200e-003	3.2200e-003		2.9600e-003	2.9600e-003	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993
Total	6.0900e-003	0.0682	0.0305	6.0000e-005	0.0197	3.2200e-003	0.0229	0.0101	2.9600e-003	0.0131	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.5000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0777	0.0777	1.0000e-005	0.0000	0.0780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.3000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0257	0.0257	0.0000	0.0000	0.0257
Total	5.0000e-005	6.7000e-004	3.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1034	0.1034	1.0000e-005	0.0000	0.1037

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.8500e-003	0.0000	8.8500e-003	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5100e-003	0.0307	0.0364	6.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993
Total	1.5100e-003	0.0307	0.0364	6.0000e-005	8.8500e-003	2.2000e-004	9.0700e-003	2.2700e-003	2.2000e-004	2.4900e-003	0.0000	5.5554	5.5554	1.7600e-003	0.0000	5.5993

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
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Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.5000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0777	0.0777	1.0000e-005	0.0000	0.0780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.3000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0257	0.0257	0.0000	0.0000	0.0257
Total	5.0000e-005	6.7000e-004	3.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1034	0.1034	1.0000e-005	0.0000	0.1037

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1560	1.1535	0.9305	1.5300e-003		0.0665	0.0665		0.0637	0.0637	0.0000	127.9501	127.9501	0.0266	0.0000	128.6156
Total	0.1560	1.1535	0.9305	1.5300e-003		0.0665	0.0665		0.0637	0.0637	0.0000	127.9501	127.9501	0.0266	0.0000	128.6156

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.0000e-004	1.4000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1077	0.1077	2.0000e-005	0.0000	0.1081
Vendor	3.3500e-003	0.1086	0.0301	1.3000e-004	1.4100e-003	2.7000e-004	1.6800e-003	4.1000e-004	2.6000e-004	6.7000e-004	0.0000	12.2280	12.2280	1.5400e-003	0.0000	12.2666
Worker	5.0500e-003	2.3600e-003	0.0302	4.0000e-005	2.9000e-003	4.0000e-005	2.9400e-003	7.8000e-004	4.0000e-005	8.2000e-004	0.0000	3.3419	3.3419	1.7000e-004	0.0000	3.3461

Total	8.4200e-003	0.1119	0.0604	1.7000e-004	4.3200e-003	3.1000e-004	4.6300e-003	1.1900e-003	3.0000e-004	1.4900e-003	0.0000	15.6776	15.6776	1.7300e-003	0.0000	15.7207
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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	0.0436	0.8310	0.9399	1.5300e-003		7.4800e-003	7.4800e-003		7.4800e-003	7.4800e-003	0.0000	127.9500	127.9500	0.0266	0.0000	128.6154
Total	0.0436	0.8310	0.9399	1.5300e-003		7.4800e-003	7.4800e-003		7.4800e-003	7.4800e-003	0.0000	127.9500	127.9500	0.0266	0.0000	128.6154

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	9.0000e-004	1.4000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1077	0.1077	2.0000e-005	0.0000	0.1081
Vendor	3.3500e-003	0.1086	0.0301	1.3000e-004	1.4100e-003	2.7000e-004	1.6800e-003	4.1000e-004	2.6000e-004	6.7000e-004	0.0000	12.2280	12.2280	1.5400e-003	0.0000	12.2666
Worker	5.0500e-003	2.3600e-003	0.0302	4.0000e-005	2.9000e-003	4.0000e-005	2.9400e-003	7.8000e-004	4.0000e-005	8.2000e-004	0.0000	3.3419	3.3419	1.7000e-004	0.0000	3.3461
Total	8.4200e-003	0.1119	0.0604	1.7000e-004	4.3200e-003	3.1000e-004	4.6300e-003	1.1900e-003	3.0000e-004	1.4900e-003	0.0000	15.6776	15.6776	1.7300e-003	0.0000	15.7207

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	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7458	101.7458	0.0207	0.0000	102.2620
Total	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7458	101.7458	0.0207	0.0000	102.2620

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	7.0000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0868	0.0868	1.0000e-005	0.0000	0.0871
Vendor	2.3300e-003	0.0829	0.0220	1.0000e-004	1.1300e-003	1.4000e-004	1.2700e-003	3.3000e-004	1.3000e-004	4.6000e-004	0.0000	9.8378	9.8378	1.1300e-003	0.0000	9.8661
Worker	3.6700e-003	1.6600e-003	0.0215	3.0000e-005	2.3300e-003	3.0000e-005	2.3600e-003	6.2000e-004	3.0000e-005	6.5000e-004	0.0000	2.6012	2.6012	1.2000e-004	0.0000	2.6040
Total	6.0100e-003	0.0853	0.0436	1.3000e-004	3.4700e-003	1.7000e-004	3.6400e-003	9.5000e-004	1.6000e-004	1.1100e-003	0.0000	12.5258	12.5258	1.2600e-003	0.0000	12.5572

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	0.0350	0.6675	0.7550	1.2300e-003		6.0100e-003	6.0100e-003		6.0100e-003	6.0100e-003	0.0000	101.7456	101.7456	0.0207	0.0000	102.2619
Total	0.0350	0.6675	0.7550	1.2300e-003		6.0100e-003	6.0100e-003		6.0100e-003	6.0100e-003	0.0000	101.7456	101.7456	0.0207	0.0000	102.2619

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	7.0000e-004	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0868	0.0868	1.0000e-005	0.0000	0.0871
Vendor	2.3300e-003	0.0829	0.0220	1.0000e-004	1.1300e-003	1.4000e-004	1.2700e-003	3.3000e-004	1.3000e-004	4.6000e-004	0.0000	9.8378	9.8378	1.1300e-003	0.0000	9.8661
Worker	3.6700e-003	1.6600e-003	0.0215	3.0000e-005	2.3300e-003	3.0000e-005	2.3600e-003	6.2000e-004	3.0000e-005	6.5000e-004	0.0000	2.6012	2.6012	1.2000e-004	0.0000	2.6040
Total	6.0100e-003	0.0853	0.0436	1.3000e-004	3.4700e-003	1.7000e-004	3.6400e-003	9.5000e-004	1.6000e-004	1.1100e-003	0.0000	12.5258	12.5258	1.2600e-003	0.0000	12.5572

3.6 Trenching/Foundation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0300e-003	0.0308	0.0341	5.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	4.5562	4.5562	1.4400e-003	0.0000	4.5922
Total	3.0300e-003	0.0308	0.0341	5.0000e-005		1.7500e-003	1.7500e-003		1.6100e-003	1.6100e-003	0.0000	4.5562	4.5562	1.4400e-003	0.0000	4.5922

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	2.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0300	0.0300	0.0000	0.0000	0.0300
Total	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0300	0.0300	0.0000	0.0000	0.0300

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2500e-003	0.0257	0.0384	5.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	4.5562	4.5562	1.4400e-003	0.0000	4.5922
Total	1.2500e-003	0.0257	0.0384	5.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	4.5562	4.5562	1.4400e-003	0.0000	4.5922

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
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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	2.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0300	0.0300	0.0000	0.0000	0.0300
Total	5.0000e-005	2.0000e-005	2.7000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0300	0.0300	0.0000	0.0000	0.0300

3.7 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	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.7700e-003	0.0579	0.0590	9.0000e-005		3.2800e-003	3.2800e-003		3.0300e-003	3.0300e-003	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	9.4000e-003	1.3900e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	1.1690	1.1690	1.5000e-004	0.0000	1.1728
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	4.0000e-005	5.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0622	0.0622	0.0000	0.0000	0.0623

Total	2.9000e-004	9.4400e-003	1.9000e-003	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	3.0000e-005	1.0000e-005	5.0000e-005	0.0000	1.2312	1.2312	1.5000e-004	0.0000	1.2350
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1000e-003	0.0443	0.0649	9.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.1000e-003	0.0443	0.0649	9.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	7.7529	7.7529	2.4600e-003	0.0000	7.8143

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	9.4000e-003	1.3900e-003	1.0000e-005	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	1.1690	1.1690	1.5000e-004	0.0000	1.1728
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	4.0000e-005	5.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0622	0.0622	0.0000	0.0000	0.0623
Total	2.9000e-004	9.4400e-003	1.9000e-003	1.0000e-005	1.4000e-004	1.0000e-005	1.5000e-004	3.0000e-005	1.0000e-005	5.0000e-005	0.0000	1.2312	1.2312	1.5000e-004	0.0000	1.2350

3.8 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.5263	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	3.0000e-005	4.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0539	0.0539	0.0000	0.0000	0.0540
Total	8.0000e-005	3.0000e-005	4.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0539	0.0539	0.0000	0.0000	0.0540

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	0.5251					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	6.7800e-003	9.1600e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.5254	6.7800e-003	9.1600e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	3.0000e-005	4.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0539	0.0539	0.0000	0.0000	0.0540
Total	8.0000e-005	3.0000e-005	4.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0539	0.0539	0.0000	0.0000	0.0540

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	0.3066	1.3340	3.2246	0.0103	0.8640	9.0500e-003	0.8731	0.2318	8.4700e-003	0.2403	0.0000	939.6512	939.6512	0.0370	0.0000	940.5749

Unmitigated	0.3066	1.3340	3.2246	0.0103	0.8640	9.0500e-003	0.8731	0.2318	8.4700e-003	0.2403	0.0000	939.6512	939.6512	0.0370	0.0000	940.5749
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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,266.35	1,269.45	922.25	2,313,424	2,313,424
Parking Lot	0.00	0.00	0.00		
Total	1,266.35	1,269.45	922.25	2,313,424	2,313,424

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.582298	0.039109	0.186022	0.123408	0.017184	0.005083	0.010615	0.023794	0.001605	0.001810	0.005454	0.002746	0.000871
Parking Lot	0.582298	0.039109	0.186022	0.123408	0.017184	0.005083	0.010615	0.023794	0.001605	0.001810	0.005454	0.002746	0.000871

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
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Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	108.3921	108.3921	0.0108	2.2400e-003	109.3314
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	108.3921	108.3921	0.0108	2.2400e-003	109.3314
NaturalGas Mitigated	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374
NaturalGas Unmitigated	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374

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					
Hotel	3.59788e+006	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374

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					
Hotel	3.59788e+006	0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0194	0.1764	0.1482	1.0600e-003		0.0134	0.0134		0.0134	0.0134	0.0000	191.9965	191.9965	3.6800e-003	3.5200e-003	193.1374

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	805113	105.9060	0.0106	2.1900e-003	106.8237
Parking Lot	18900	2.4861	2.5000e-004	5.0000e-005	2.5077
Total		108.3921	0.0108	2.2400e-003	109.3314

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	805113	105.9060	0.0106	2.1900e-003	106.8237
Parking Lot	18900	2.4861	2.5000e-004	5.0000e-005	2.5077
Total		108.3921	0.0108	2.2400e-003	109.3314

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	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Unmitigated	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3884					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Total	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0525					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3884					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-004	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003
Total	0.4411	2.0000e-005	2.6800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1800e-003	5.1800e-003	1.0000e-005	0.0000	5.5300e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3908	5.0900e-003	3.0900e-003	5.4380
Unmitigated	4.3908	5.0900e-003	3.0900e-003	5.4380

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.93185 / 0.436872	4.3908	5.0900e-003	3.0900e-003	5.4380

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.3908	5.0900e-003	3.0900e-003	5.4380

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.93185 / 0.436872	4.3908	5.0900e-003	3.0900e-003	5.4380
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		4.3908	5.0900e-003	3.0900e-003	5.4380

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.2258	1.0180	0.0000	42.6762
Unmitigated	17.2258	1.0180	0.0000	42.6762

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	84.86	17.2258	1.0180	0.0000	42.6762
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		17.2258	1.0180	0.0000	42.6762

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	84.86	17.2258	1.0180	0.0000	42.6762
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		17.2258	1.0180	0.0000	42.6762

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

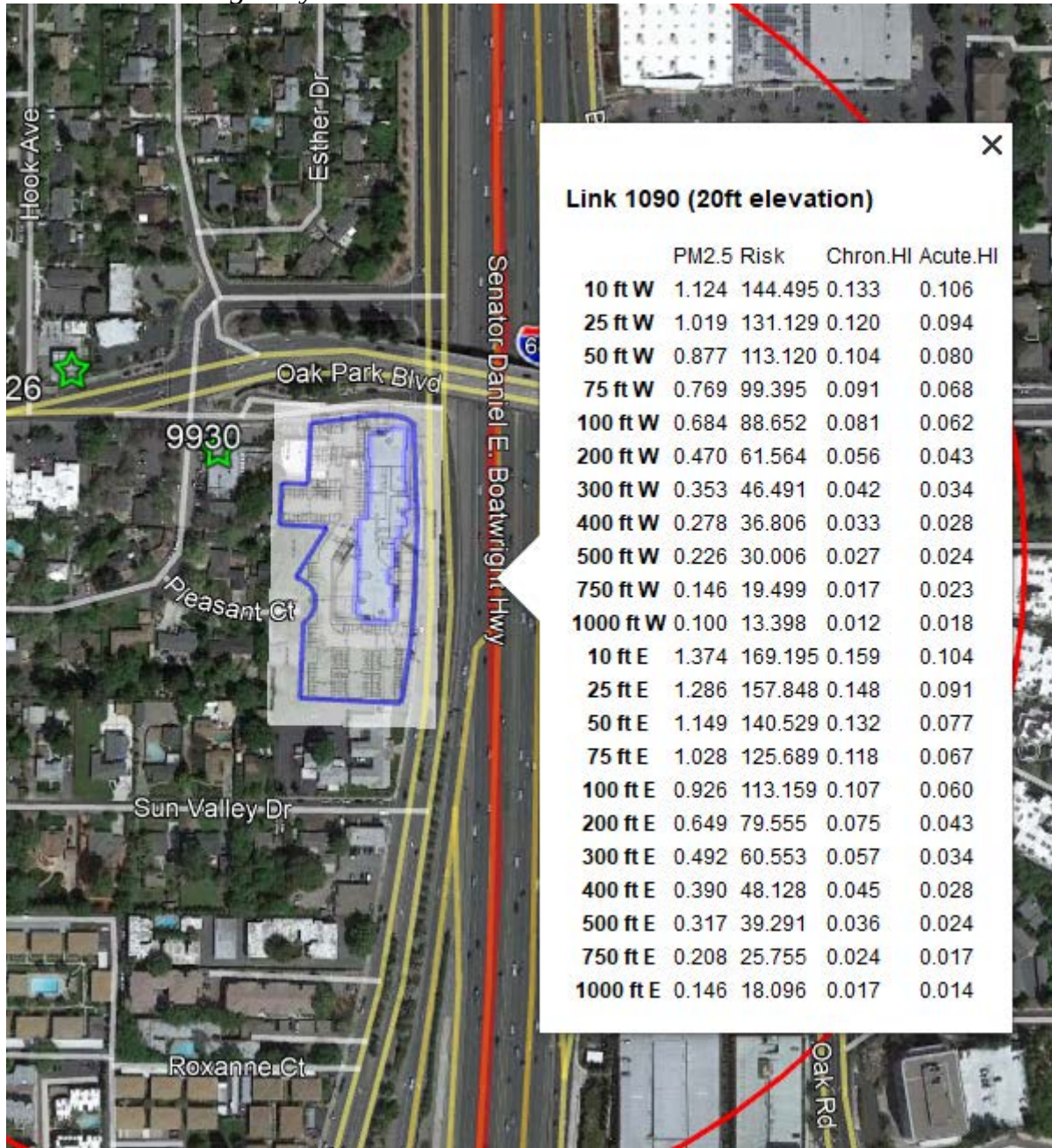
Equipment Type	Number
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11.0 Vegetation

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Attachment 3: Screening Community Risk Calculations

Interstate 680 Highway Risk



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

Contra Costa

Roadway Direction

North-South

Side of the Roadway

West

Distance from Roadway

140

feet

Annual Average Daily Traffic (ADT)

18,875

Results

Contra Costa County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

0.093

(µg/m³)

Cancer Risk

3.70

(per million)

North Main Street

Cumulative plus project volumes from traffic report
Data for Contra Costa County based on meteorological data collected from Chevron Refinery in 2005

Adjusted for 2015 OEHHA
and EMFAC2014 for 2018

2.54

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggregate 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.

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

Contra Costa

Roadway Direction

East-West

Side of the Roadway

South

Distance from Roadway

760

feet

Annual Average Daily Traffic (ADT)

20,690

Results

Contra Costa County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

0.021

(µg/m³)

Cancer Risk

0.83

(per million)

Oak Park Boulevard

Cumulative plus project volumes from traffic report
Data for Contra Costa County based on meteorological data collected from Chevron Refinery in 2005

Adjusted for 2015 OEHHA
and EMFAC2014 for 2018

0.57

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggregate 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:

- 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.
- 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.
- Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

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

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

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

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

Table A: Requester Contact Information

Date of Request	8/16/2018
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x35
Email	mmcnamara@illingworthrodkin.com
Project Name	18-154 Cambria Hotel
Address	3131 and 3195 North Main Street
City	Pleasant Hill
County	Contra Costa
Type (residential, commercial, mixed use, industrial, etc.)	Hotel
Project Size (# of units or building square feet)	150 rooms

Comments:

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

1. Complete all the contact and project information requested in [Table A](#) . Incomplete forms will not be processed. Please include a project site map.
2. Download and install the free program Google Earth, <http://www.google.com/earth/download/ge/>, and then download the county specific Google Earth stationary source application files from the District's website, <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.
3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to [Table B](#)
5. List the stationary source information in [Table B](#) e section only.
6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSa) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSa values are presented, these values have already been modeled and cannot be adjusted further.
7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

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

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

Table B: Google Earth data

Distance from Receptor (feet) or MEI ¹	Facility Name	Address	Plant No.	Cancer Risk ²	Hazard Risk ²	PM _{2.5} ²	Source No. ³	Type of Source ⁴	Fuel Code ⁵	Status/Comments
578	USA Petroleum	1616 Oak Park Blvd	111826	31.683	0.1564	0.0000	S1	Gas Dispensing Facility		Use GDF Multiplier
278	Pleasant Hill Collision Repair Center Inc	1581 Oak Park Boulevard	9930	0	0.0016		S2	Auto Body Coating operation		
605	Shahidi II dba Buskirk Gas Mart & Carwash	3210 Buskirk Ave	112076	27.3939272	0.1352		S1	Gas Dispensing Facility		Use GDF Multiplier
750	CSAA Insurance Group	3055 Oak Road	20588	1.603	0.0034	0.002005	S1 ,S2	Generators	98	Use Diesel IC Multiplier

Footnotes:

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

Date last updated:

How to Use the Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities (GDF)

This distance multiplier tool refines the screening values for cancer risk and chronic hazard index found in the District's Stationary Source Screening Analysis Tool to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions (GDF's).

1. Obtain the GDF cancer risk and/or chronic hazard index from the District's Stationary Source Screening Analysis tool for facilities where the Plant No. is preceded with a 'G'. If the distance to the nearest receptor is less than 20 meters, the distance adjustment multiplier table cannot be used and an air dispersion modeling analysis using site-specific information is needed to refine the cancer risk and/or chronic hazard index estimate.

2. Determine the shortest distance from the GDF to the nearest receptor.

3. In the table below, enter the cancer risk and/or chronic hazard index found in step 1 for the GDF in the row which aligns with the shortest distance from each GDF to the nearest receptor (found in step 2). If the shortest distance to the receptor falls between two distance values, select the multiplier corresponding to the smaller distance. For distances beyond 300 meters, use the multiplier 0.015. The resulting product is the adjusted cancer risk in a million or the adjusted chronic hazard index for the GDF.

Note: These distance adjustment multipliers may be used only for the screening level health risk values indicated in the District's Stationary Source Screening Analysis tool for gasoline dispensing facilities. This distance multiplier tool may not be used to adjust values from an HRA if an HRA for the facility was conducted.

Distance meters	Distance feet	Distance adjustment multiplier	Enter Cancer Risk	Adjusted Cancer Risk	Enter Chronic Hazard Index	Adjusted Chronic Hazard Index
20	66	1.000		0		0
25	82	0.728		0		0
30	98	0.559		0		0
35	115	0.445		0		0
40	131	0.365		0		0
45	148	0.305		0		0
50	164	0.260		0		0
55	180	0.225		0		0
60	197	0.197		0		0
65	213	0.174		0		0
70	230	0.155		0		0
75	246	0.139		0		0
80	262	0.126		0		0
85	279	0.114		0		0
90	295	0.104		0		0
95	312	0.096		0		0
100	328	0.088		0		0
105	344	0.082		0		0
110	361	0.076		0		0
115	377	0.071		0		0
120	394	0.066		0		0
125	410	0.062		0		0
130	426	0.058		0		0
135	443	0.055		0		0
140	459	0.052		0		0
145	476	0.049		0		0
150	492	0.046		0		0
155	508	0.044		0		0
160	525	0.042		0		0
165	541	0.040		0		0
170	558	0.038		0		0
175	574	0.036		0		0
180	590	0.034		0		0
185	607	0.033		0		0
190	623	0.031		0		0
195	640	0.030		0		0
200	656	0.029		0		0
205	672	0.028		0		0
210	689	0.027		0		0
215	705	0.026		0		0
220	722	0.025		0		0
225	738	0.024		0		0
230	754	0.023		0		0
235	771	0.022		0		0
240	787	0.022		0		0
245	804	0.021		0		0
250	820	0.020		0		0
255	836	0.020		0		0
260	853	0.019		0		0
265	869	0.018		0		0
270	886	0.018		0		0
275	902	0.017		0		0
280	918	0.017		0		0
285	935	0.016		0		0
290	951	0.016		0		0
295	968	0.015		0		0
300	984	0.015		0		0

How to Use the Distance Adjustment Multiplier Tool for Diesel Internal Combustion (IC) Engines

This distance multiplier tool refines the screening values for cancer risk and PM2.5 concentrations found in the District's Stationary Source Screening Analysis Tool for permitted facilities which contain only diesel IC engines, to represent adjusted risk and hazard impacts that can be expected with farther distances from the source of emissions.

1. Obtain the facility diesel IC engine(s) cancer risk and/or PM2.5 concentration from the District's Stationary Source Screening Analysis tool only for facilities where the source is listed as "generator." If the distance to the nearest receptor is less than 25 meters, the distance adjustment multiplier table cannot be used and an air dispersion modeling analysis using site-specific information is needed to refine the cancer risk, chronic hazard index or PM2.5 estimates.

2. Determine the shortest distance from each diesel IC engine to the nearest receptor. Select the shortest distance to receptor found.

3. In the table below, enter the cancer risk and/or PM2.5 concentration found in step 1 for the diesel IC engine in the row which aligns with the shortest distance from each diesel IC engine to the nearest receptor (found in step 2). If the shortest distance to the receptor falls between two distance values, select the multiplier corresponding to the smaller distance. For distances beyond 280 meters, use the multiplier 0.04. The resulting product is the adjusted cancer risk in a million or the adjusted PM2.5 concentration for the diesel IC engine

Note: This distance adjustment multiplier may be used only for the screening level health risk values indicated in the District's Stationary Source Screening Analysis tool for diesel IC engines. This distance multiplier tool may not be used to adjust values from an HRA if an HRA for the facility was conducted.

Note: This distance adjustment multiplier may also be used to adjust the screening values for chronic hazard index found in the District's Stationary Source Screening Analysis Tool for facilities with only diesel IC engines.

Distance (meters)	Distance (feet)	Distance Adjustment Multiplier	Enter Cancer Risk Estimate	Adjusted Cancer Risk Estimate	Enter PM2.5 Concentration	Adjusted PM2.5 Concentration
25	82	0.85		0		0
30	98.4	0.73		0		0
35	115	0.64		0		0
40	131	0.58		0		0
50	164	0.5		0		0
60	197	0.41		0		0
70	230	0.31		0		0
80	262	0.28		0		0
90	295	0.25		0		0
100	328	0.22		0		0
110	361	0.18		0		0
120	394	0.16		0		0
130	426	0.15		0		0
140	459	0.14		0		0
150	492	0.12		0		0
160	525	0.1		0		0
180	590	0.09		0		0
200	656	0.08		0		0
220	722	0.07		0		0
240	787	0.06		0		0
260	853	0.05		0		0
280	918	0.04		0		0



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Risk & Hazard Stationary Source Inquiry Form

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

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

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

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

Table A: Requester Contact Information	
Date of Request	8/16/2018
Contact Name	Mimi McNamara
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x35
Email	mmcnamara@illingworthrodkin.com
Project Name	18-154 Cambria Hotel
Address	3131 and 3195 North Main Street
City	Pleasant Hill
County	Contra Costa
Type (residential, commercial, mixed use, industrial, etc.)	Hotel
Project Size (# of units or building square feet)	150 rooms
Comments:	

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

- Complete all the contact and project information requested in **Table A**. Incomplete forms will not be processed. Please include a project site map.
- Download and install the free program Google Earth, <http://www.google.com/earth/download/ge/>, and then download the county specific Google Earth stationary source application files from the District's website, <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.
- Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
- Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.
- List the stationary source information in **Table B** section only.
- Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.
- Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

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

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

Table B: Google Earth data											Construction MEI			
Distance from Receptor (feet) or MEI ¹	Facility Name	Address	Plant No.	Cancer Risk ²	Hazard Risk ²	PM _{2.5} ²	Source No. ³	Type of Source ⁴	Fuel Code ⁵	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
900	USA Petroleum	1616 Oak Park Blvd	111826	31.683	0.1564	0	S1	Gas Dispensing Facility		Use GDF Multiplier	0.015	0.47	2.34E-03	0.00
575	Pleasant Hill Collision Repair Center Inc	1581 Oak Park Boulevard	9930	0	0.0016	0	S2	Auto Body Coating operation			0.09	0.00	1.45E-04	0.00
1000	Shahidi II dba Buskirk Gas Mart & Carwash	3210 Buskirk Ave	112076	27.393927	0.1352	0	S1	Gas Dispensing Facility		Use GDF Multiplier	0.015	0.41	2.02E-03	0.00
600	CSAA Insurance Group	3055 Oak Road	20588	1.603	0.0034	0.002005	S1,S2	Generators	98	Use Diesel IC Multiplier	0.09	0.14	4.85E-04	9.73E-07

Footnotes:

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

Attachment 4: Construction Health Risk Calculations

Cambria Hotel, Pleasant Hill, CA

DPM Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2019-2020	Construction	0.1364	CON_DPM	272.8	0.08304	1.05E-02	10,049	1.04E-06

Construction Hours

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

PM2.5 Fugitive Dust Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate g/s/m ²
				(lb/yr)	(lb/hr)	(g/s)		
2019-2020	Construction	CON_FUG	0.01261	25.2	0.00768	9.67E-04	10,049	9.63E-08

Construction Hours

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

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2019-2020	Construction	0.0161	CON_DPM	32.2	0.00980	1.23E-03	10,049	1.23E-07

Construction Hours

hr/day =	10	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

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

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate g/s/m ²
				(lb/yr)	(lb/hr)	(g/s)		
2019-2020	Construction	CON_FUG	0.00458	9.2	0.00279	3.51E-04	10,049	3.50E-08

Construction Hours

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

Cambria Hotel, Pleasant Hill, CA - Construction Health Impact Summary

Maximum Impacts at MEI Location - Unmitigated

Emissions Year						
	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM	Fugitive PM2.5				
	(µg/m³)	(µg/m³)	Infant/Child	Adult	(-)	(µg/m³)
2019-2020	0.1730	0.0186	28.4	0.5	0.035	0.19

Maximum Impacts at MEI Location - With Mitigation

Emissions Year						
	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM	Fugitive PM2.5				
	(µg/m³)	(µg/m³)	Infant/Child	Adult	(-)	(µg/m³)
2019-2020	0.0205	0.0091	3.4	0.1	0.004	0.03

Maximum Impacts at Daycare for Infants

Construction Year	Unmitigated Emissions				
	Maximum Concentrations		Child Cancer Risk (per million)	Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m³)
	Exhaust PM2.5/DPM (µg/m³)	Fugitive PM2.5 (µg/m³)			
2019-2020	0.0192	0.0019	3.2	0.00	0.02

Cambria Hotel, Pleasant Hill, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)
 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

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Maximum	
			DPM Conc (ug/m3)		Age Sensitivity		Modeled		Age Sensitivity			
			Year	Annual	Factor		DPM Conc (ug/m3)		Factor			
			Year	Annual	Factor		Year	Annual	Factor			
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019-2020	0.1730	10	28.41	2019-2020	0.1730	1	0.50	0.0186	0.192
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00		
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						28.4			0.50			

* Third trimester of pregnancy

Cambria Hotel, Pleasant Hill, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height

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

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Maximum	
			DPM Conc (ug/m3)		Age Sensitivity		Modeled		Age Sensitivity		Fugitive PM2.5	Total PM2.5
			Year	Annual	Factor		Year	Annual	Factor			
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-			
1	1	0 - 1	2019-2020	0.0506	10	8.31	0.0506	1	0.15	0.0048	0.055	
2	1	1 - 2		0.0000	10	0.00	0.0000	1	0.00			
3	1	2 - 3		0.0000	3	0.00	0.0000	1	0.00			
4	1	3 - 4		0.0000	3	0.00	0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00	0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00	0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00	0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00	0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00	0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00	0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00	0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00	0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00	0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00	0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00	0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00	0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00	0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00	0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00	0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00	0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00	0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00	0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00	0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00	0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00	0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00	0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00	0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00	0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00	0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00	0.0000	1	0.00			
Total Increased Cancer Risk						8.3			0.15			

* Third trimester of pregnancy

Cambria Hotel, Pleasnat Hill, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk Calculations From Construction
Daycare - 0.5 meter receptor height - Infant Exposure

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

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Infant - Exposure Information			Infant Cancer Risk (per million)
		DPM Conc (ug/m3)		Age* Sensitivity	
		Year	Annual	Factor	
1	1	2019-2020	0.0192	10	3.2

Maximum	
Fugitive	Total
PM2.5	PM2.5
0.0019	0.021

* Infants assumed to be from 0 to 2 years of age

Cambria Hotel, Pleasant Hill, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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

Where: CPF = Cancer potency factor (mg/kg-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 (µg/m³)
 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

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Maximum	
			DPM Conc (ug/m3)		Age Sensitivity		Modeled		Age Sensitivity		Fugitive PM2.5	Total PM2.5
			Year	Annual	Factor		Year	Annual	Factor			
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019-2020	0.0205	10	3.36	2019-2020	0.0205	1	0.06	0.0091	0.030
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00		
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						3.4			0.06			

* Third trimester of pregnancy

PH Hotel Existing Use - Contra Costa County, Annual

PH Hotel Existing Use
Contra Costa County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	9.71	1000sqft	1.67	9,709.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWahr)	328	CH4 Intensity (lb/MWahr)	0.029	N2O Intensity (lb/MWahr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E carbon intensity factor for 2018 used.

Land Use - Existing lot acreage used.

Vehicle Trips - trip rate per traffic study.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.22	1.67
tblProjectCharacteristics	CO2IntensityFactor	641.35	328
tblVehicleTrips	ST_TR	94.36	86.54
tblVehicleTrips	SU_TR	72.16	86.54
tblVehicleTrips	WD_TR	89.95	86.54

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	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	128.8622	128.8622	5.3700e-003	2.3600e-003	129.6999
Mobile	0.2464	0.8985	2.2127	5.0500e-003	0.3724	6.1300e-003	0.3785	0.1000	5.7700e-003	0.1057	0.0000	461.2004	461.2004	0.0244	0.0000	461.8103
Waste						0.0000	0.0000		0.0000	0.0000	1.7985	0.0000	1.7985	0.1063	0.0000	4.4557
Water						0.0000	0.0000		0.0000	0.0000	0.9351	2.4707	3.4057	0.0963	2.3100e-003	6.5014
Total	0.2981	0.9784	2.2799	5.5300e-003	0.3724	0.0122	0.3846	0.1000	0.0118	0.1118	2.7336	592.5334	595.2669	0.2323	4.6700e-003	602.4675

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	0.2464	0.8985	2.2127	5.0500e-003	0.3724	6.1300e-003	0.3785	0.1000	5.7700e-003	0.1057	0.0000	461.2004	461.2004	0.0244	0.0000	461.8103
Unmitigated	0.2464	0.8985	2.2127	5.0500e-003	0.3724	6.1300e-003	0.3785	0.1000	5.7700e-003	0.1057	0.0000	461.2004	461.2004	0.0244	0.0000	461.8103

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Quality Restaurant	840.22	840.22	840.22	996,637	996,637
Total	840.22	840.22	840.22	996,637	996,637

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Quality Restaurant	0.564894	0.042680	0.188343	0.132830	0.020067	0.005185	0.010669	0.022441	0.001545	0.001931	0.005633	0.002784	0.000998

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	41.8613	41.8613	3.7000e-003	7.7000e-004	42.1820
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	41.8613	41.8613	3.7000e-003	7.7000e-004	42.1820
NaturalGas Mitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179
NaturalGas Unmitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179

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
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Land Use	kBTU/yr	tons/yr										MT/yr					
Quality Restaurant	1.63034e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179
Total		8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179

Mitigated

	Natural Gas 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					
Quality Restaurant	1.63034e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179
Total		8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	281367	41.8613	3.7000e-003	7.7000e-004	42.1820
Total		41.8613	3.7000e-003	7.7000e-004	42.1820

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	281367	41.8613	3.7000e-003	7.7000e-004	42.1820
Total		41.8613	3.7000e-003	7.7000e-004	42.1820

Total		41.8613	3.7000e-003	7.7000e-004	42.1820
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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	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Unmitigated	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-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	5.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Total	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-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	5.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	0.0379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Total	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.4057	0.0963	2.3100e-003	6.5014
Unmitigated	3.4057	0.0963	2.3100e-003	6.5014

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	2.94731 / 0.188126	3.4057	0.0963	2.3100e-003	6.5014
Total		3.4057	0.0963	2.3100e-003	6.5014

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	2.94731 / 0.188126	3.4057	0.0963	2.3100e-003	6.5014

Total		3.4057	0.0963	2.3100e-003	6.5014
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8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7985	0.1063	0.0000	4.4557
Unmitigated	1.7985	0.1063	0.0000	4.4557

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	8.86	1.7985	0.1063	0.0000	4.4557
Total		1.7985	0.1063	0.0000	4.4557

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	8.86	1.7985	0.1063	0.0000	4.4557
Total		1.7985	0.1063	0.0000	4.4557

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

PH Hotel Existing Use - Contra Costa County, Annual

PH Hotel Existing Use
Contra Costa County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	9.71	1000sqft	1.67	9,709.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWahr)	328	CH4 Intensity (lb/MWahr)	0.029	N2O Intensity (lb/MWahr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E carbon intensity factor for 2018 used.

Land Use - Existing lot acreage used.

Vehicle Trips - trip rate per traffic study.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.22	1.67
tblProjectCharacteristics	CO2IntensityFactor	641.35	328
tblVehicleTrips	ST_TR	94.36	86.54
tblVehicleTrips	SU_TR	72.16	86.54
tblVehicleTrips	WD_TR	89.95	86.54

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	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Energy	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	128.8622	128.8622	5.3700e-003	2.3600e-003	129.6999
Mobile	0.2464	0.8985	2.2127	5.0500e-003	0.3724	6.1300e-003	0.3785	0.1000	5.7700e-003	0.1057	0.0000	461.2004	461.2004	0.0244	0.0000	461.8103
Waste						0.0000	0.0000		0.0000	0.0000	1.7985	0.0000	1.7985	0.1063	0.0000	4.4557
Water						0.0000	0.0000		0.0000	0.0000	0.9351	2.4707	3.4057	0.0963	2.3100e-003	6.5014
Total	0.2981	0.9784	2.2799	5.5300e-003	0.3724	0.0122	0.3846	0.1000	0.0118	0.1118	2.7336	592.5334	595.2669	0.2323	4.6700e-003	602.4675

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	0.2464	0.8985	2.2127	5.0500e-003	0.3724	6.1300e-003	0.3785	0.1000	5.7700e-003	0.1057	0.0000	461.2004	461.2004	0.0244	0.0000	461.8103
Unmitigated	0.2464	0.8985	2.2127	5.0500e-003	0.3724	6.1300e-003	0.3785	0.1000	5.7700e-003	0.1057	0.0000	461.2004	461.2004	0.0244	0.0000	461.8103

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Quality Restaurant	840.22	840.22	840.22	996,637	996,637
Total	840.22	840.22	840.22	996,637	996,637

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Quality Restaurant	0.564894	0.042680	0.188343	0.132830	0.020067	0.005185	0.010669	0.022441	0.001545	0.001931	0.005633	0.002784	0.000998

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	41.8613	41.8613	3.7000e-003	7.7000e-004	42.1820
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	41.8613	41.8613	3.7000e-003	7.7000e-004	42.1820
NaturalGas Mitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179
NaturalGas Unmitigated	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179

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
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Land Use	kBTU/yr	tons/yr										MT/yr					
Quality Restaurant	1.63034e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179
Total		8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179

Mitigated

	Natural Gas 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					
Quality Restaurant	1.63034e+006	8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179
Total		8.7900e-003	0.0799	0.0671	4.8000e-004		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	87.0009	87.0009	1.6700e-003	1.6000e-003	87.5179

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	281367	41.8613	3.7000e-003	7.7000e-004	42.1820
Total		41.8613	3.7000e-003	7.7000e-004	42.1820

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	281367	41.8613	3.7000e-003	7.7000e-004	42.1820

Total		41.8613	3.7000e-003	7.7000e-004	42.1820
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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	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Unmitigated	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-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	5.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Total	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-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	5.0600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	0.0379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004
Total	0.0430	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7000e-004	1.7000e-004	0.0000	0.0000	1.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.4057	0.0963	2.3100e-003	6.5014
Unmitigated	3.4057	0.0963	2.3100e-003	6.5014

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	2.94731 / 0.188126	3.4057	0.0963	2.3100e-003	6.5014
Total		3.4057	0.0963	2.3100e-003	6.5014

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	2.94731 / 0.188126	3.4057	0.0963	2.3100e-003	6.5014

Total		3.4057	0.0963	2.3100e-003	6.5014
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8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7985	0.1063	0.0000	4.4557
Unmitigated	1.7985	0.1063	0.0000	4.4557

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	8.86	1.7985	0.1063	0.0000	4.4557
Total		1.7985	0.1063	0.0000	4.4557

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	8.86	1.7985	0.1063	0.0000	4.4557
Total		1.7985	0.1063	0.0000	4.4557

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
