Appendix A: Air Quality Analysis

Air Quality Assessment for the proposed Mountain Winery Project in the City of Saratoga, California

Prepared by:

Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, California 92868
Contact: Mr. Ace Malisos
714.939.1030

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LIST OF ABBREVIATED TERMS

AQMP	air quality management plan
AB	Assembly Bill
ADT	average daily traffic
BAAQMD	Bay Area Air Quality Management District
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
cy	cubic yards
DPM	diesel particulate matter
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
H_2S	hydrogen sulfide
Pb	Lead
LST	local significance threshold
$\mu g/m^3$	micrograms per cubic meter
mg/m^3	milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
O_3	Ozone
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
ROG	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SRA	source receptor area
SF	square foot
SO_{4-2}	Sulfates
SO_2	sulfur dioxide
TAC	toxic air contaminant
C_2H_3Cl	vinyl chloride
VOC	volatile organic compound

1 INTRODUCTION

This section describes effects on air quality conditions in the Project area. The current condition and quality of air quality was used as the baseline against which to compare potential impacts of the Project. Where appropriate, and to minimize redundancy, cross references to the applicable analysis contained within the Draft EIR is provided. Technical on-site information used to prepare this section came from the following resources:

- Project application and related materials
- Air quality data provided by the California Air Resources Board (CARB)
- Air Quality Assessment analysis (see Appendix A)
- State Office of Environmental Health Hazard Assessment (OEHHA)
- California Environmental Quality Act (CEQA) Air Quality Guidelines
- Bay Area Air Quality Management district (BAAQMD)

1.1 PROJECT LOCATION

The Mountain Winery is located at 14831 Pierce Road in the City of Saratoga and unincorporated Santa Clara County in California. *Figure 1: Regional Vicinity* and *Figure 2: Site Vicinity*, depict the Project site in a regional and local context. The Mountain Winery is located on three contiguous parcels: APN 503-46-005 (-005), 503-46-006 (-006) and 503-46-007 (-007). The three parcels total approximately 430 acres. The Santa Cruz Mountains are located to the west of the City and unincorporated areas of Santa Clara County border the City to the west.

Land uses surrounding the west, north, and south of the Project site include predominantly undeveloped hillside parcels. Low density single-family residential neighborhoods are located to the east of the project site. South, north, and west of the Project site are scattered residential uses and wineries or other event centers.

1.2 PROJECT DESCRIPTION

The new General Plan land use designation (RC) and the new zoning district (RC) and Precise Plan would allow uses permitted under the Mountain Winery's existing County Use Permit (approved in 2000, modified in 2018) to continue, while also allowing for new uses (subject to a maximum permissible density and intensity of use established by the Precise Plan). Uses currently permitted under the County Use Permit include the existing Mountain Winery operations, a future wine tasting building, a future concession building, a future event building, a future storage building, a future ticket office, and a future outdoor terrace garden area. As proposed, the Project would include lodging (up to 300 hotel rooms), a second water tank, and future connections to the Cupertino Sanitary District infrastructure.

The project site is located in unincorporated Santa Clara County and is designated in the Santa Clara County General Plan as Hillside (HS). This designation is considered to be a resource conservation area and allows for agriculture and grazing; mineral extraction; parks and low-density recreational uses and facilities; land in its natural state; wildlife refuges; very low-density residential development; and commercial industrial or institutional uses, which by their nature require remote, rural settings, or which

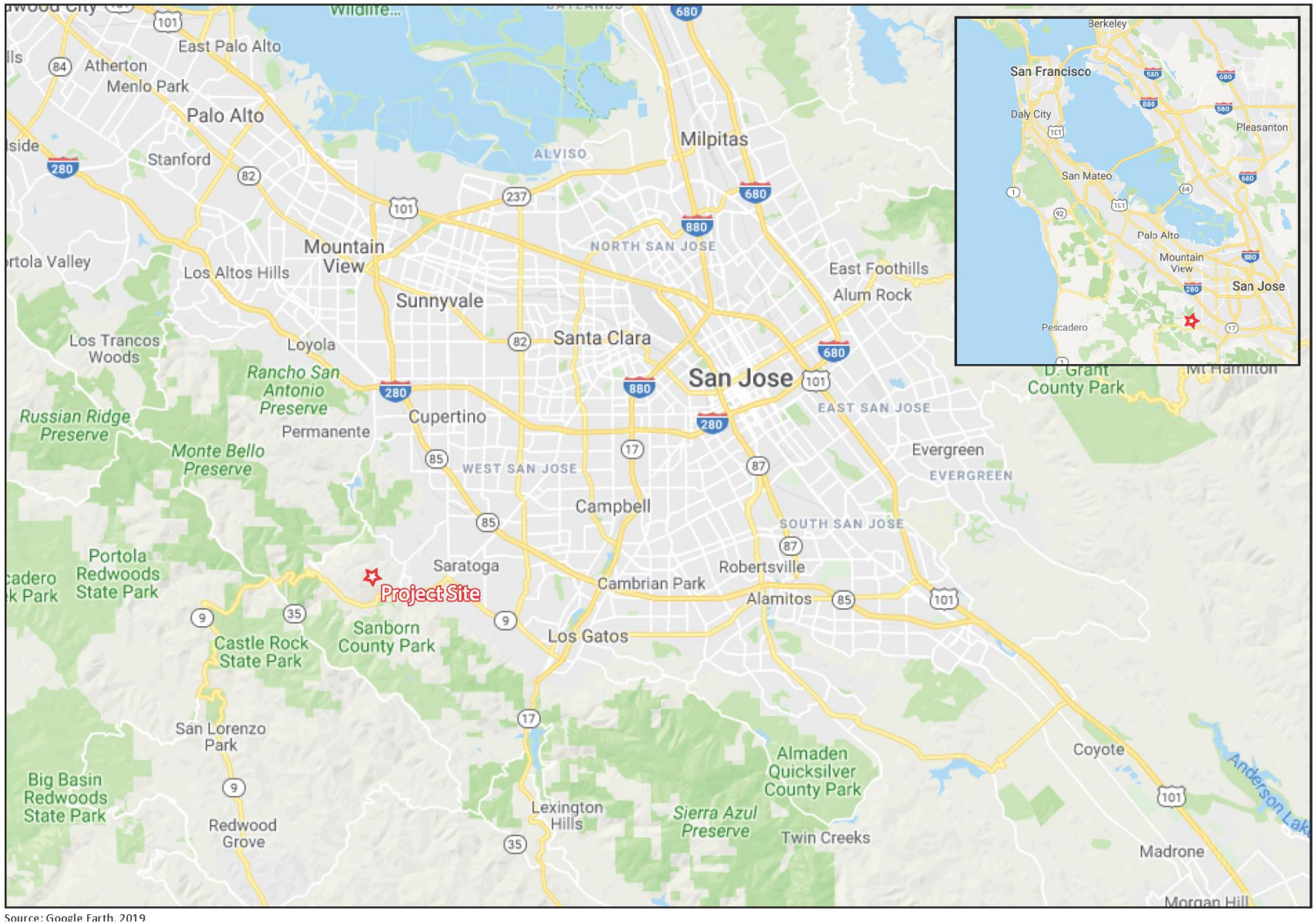
support the recreational, or productive use, study or appreciation of the natural environment. The various parcels in the project site are zoned Hillside-d1 District, Hillside-d1-Scenic Roads; or Hillside Residential (HR). As part of Project, a General Plan amendment would be required to establish a new land use designation that would apply to the project site: Regional Commercial (RC). This land use designation would allow a broad range of visitor serving commercial uses with a regional orientation. The RC designation would allow indoor and outdoor recreation, dining, entertainment, meetings and special events, retreats, lodging, wineries, spas, agriculture, and other similar commercial activities and compatible uses.

As shown in the *Figure 2*, the majority of the Mountain Winery is located within the (-006) parcel limits. The potential future connection of the Mountain Winery to the Cupertino Sanitary District system would be placed within the (-005) parcel. The existing water tank that provides water to the Mountain Winery is located within the (-007) parcel.

Primary access to the Project site would be provided via Pierce Road which intersects Saratoga-Sunnyvale Road to the north and Big Basin Way (SR-9) to the south. Access from Pierce Road is provided via the main access road terminating at the parking lot at the top of the Mountain Winery. Access to the project site would continue to be provided via the main access road and Pierce Road. The existing parking lots would remain unaltered, and on-site circulation would not be changed. Should the maximum uses allowed under the project be implemented, internal circulation roads may be constructed to provide access to the new buildings.

Construction is anticipated to begin in Summer 2020 and last approximately 18 months. The Mountain Winery would remain open during construction; however, there may be temporary closures in the parking area. Construction methods would include excavator trenching, pipe, valve and fitting installation, backfill and compaction of native fill. Construction of the Project would be required to be consistent with the City's Best Management Practices and California Building Code.

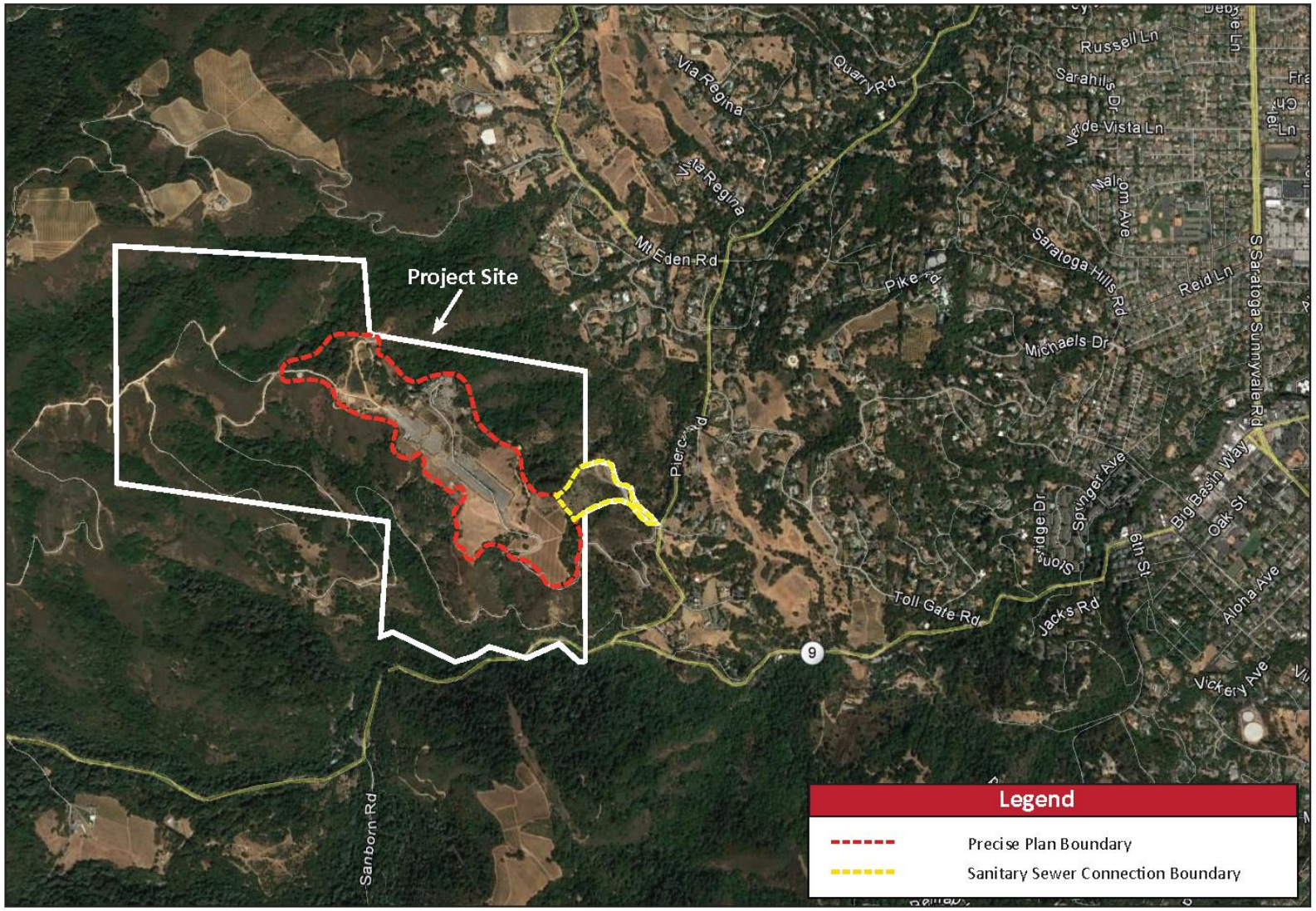
Figure 1: Regional Vicinity



Source: Google Earth, 2019

Source: Google Maps, 2019

Figure 2: Site Vicinity



Source: Kimley-Horn, 2019; Google Maps, 2019

2 ENVIRONMENTAL SETTING

2.1 CLIMATE AND METEOROLOGY

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The Project is located within the San Francisco Bay Area Air Basin (Basin). This Basin comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below. The Bay Area Air Quality Management District (BAAQMD) is responsible for local control and monitoring of criteria air pollutants throughout the Basin.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Topography also affects the local climate, as valleys often trap emissions by limiting lateral dispersal.

The inversions typical of winter, called radiation inversions, are formed as heat quickly radiates from the earth's surface after sunset, causing the air in contact with it to rapidly cool. Radiation inversions are strongest on clear, low-wind, cold winter nights, allowing the build-up of such pollutants as carbon monoxide and particulate matter. When wind speeds are low, there is little mechanical turbulence to mix the air, resulting in a layer of warm air over a layer of cooler air next to the ground. During radiation inversions downwind transport is slow, the mixing depths are shallow, and turbulence is minimal, all factors which contribute to ozone formation.

The frequency of hot, sunny days during the summer months in the Basin is another important factor that affects air pollution potential. It is at the higher temperatures that ozone is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen react to form secondary photochemical pollutants, including ozone.

The climate is dominated by the location and strength of a semi-permanent, subtropical high-pressure cell. In the summer, the Pacific cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the coast which results in condensation and the presence of fog and stratus clouds along the coast. In the winter, the high-pressure cell weakens and shifts southward, resulting in increased wind flow offshore, the absence of upwelling, and the occurrence of storms.

The Basin is characterized by moderately wet winters (November through March) and dry summers. The rainfall in the mountains reaches 40 inches while the valley sees less than 16 inches. Generally, coastal temperatures can be 35 degrees Fahrenheit cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10 degrees Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed.

The project site is located in the City of Saratoga and unincorporated Santa Clara County; on the southern perimeter of the San Francisco Bay. The City of Saratoga is located near the northern end of the Santa Clara Valley. The City has a generally mild climate, with average temperatures in the low 80's Fahrenheit in the summer and high 50's Fahrenheit in the winter. The annual rainfall is approximately 16 inches in this part of the valley, primarily between November and April. The regulatory section below discusses the various buffer zones around sources of air pollution sufficient to avoid adverse health and nuisance impacts on nearby receptors.

2.2 AIR POLLUTANTS OF PRIMARY CONCERN

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in *Table 1: Air Contaminants and Associated Public Health Concerns*.

Table 1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles,	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overloading which

Table 1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
	electric utilities, and other sources that burn fuel.	deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Notes:
[1] Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Source: California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, capcoa.org/health-effects/, accessed June 13, 2019.

Ozone, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between ROG and NO_X in the presence of sunlight. Ozone formation is greatest on warm, windless, sunny days. The main sources of NO_X and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) the evaporation of solvents, paints, and fuels, and biogenic sources. Automobiles are the single largest source of ozone precursors in the Basin. Tailpipe emissions of ROG are highest during cold starts, hard acceleration, stop-and-go conditions, and slow speeds. They decline as speeds increase up to about 50 miles per hour (mph), then increase again at high speeds and high engine loads. ROG emissions associated with evaporation of unburned fuel depend on vehicle and ambient temperature cycles. Nitrogen oxide emissions exhibit a different curve; emissions decrease as the vehicle approaches 30 mph and then begin to increase with increasing speeds.

Ozone levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. Ozone can also damage plants and trees, and materials such as rubber and fabrics.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the project site are documented by measurements made by the Bay Area Air Quality Management District (BAAAQMD)'s air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

Ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$) are pollutants of concern in the BAAQMD. The closest air monitoring station to the project site that monitors ambient concentrations of these pollutants is the Los Gatos Monitoring Station (located approximately 4.8 miles southeast of the project site). The second closest is the San Jose-Jackson Street Monitoring Station located approximately 11 miles northeast of the project site. Local air quality data from 2016 to 2018 is provided in Table 2: Ambient Air Quality Data. Table 2, lists the monitored maximum concentrations and number of exceedances of federal or state air quality standards for each year. Particulate matter (PM_{10} and $PM_{2.5}$) were both exceeded in 2018 at one of the closest monitoring stations. Table 4: State and Federal Ambient Air Quality Standards below shows the attainment and nonattainment status for various pollutants. In general, the Bay Area experiences low concentrations of most pollutants when compared to federal standards, except for O_3 (ozone) and particulate matter (PM), for which standards are exceeded periodically. With respect to federal standards, the Bay Area's attainment status for 8-hour ozone is classified as "marginal nonattainment" and "nonattainment" for $PM_{2.5.}$ The region is also considered to be in nonattainment with the California Ambient Air Quality Standards (CAAQS) for PM_{10} and $PM_{2.5}$. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, NO_2 and SO_2 National Ambient Air Quality Standards (NAAQS) and CAAQS.

Table 2: Ambient Air Quality Data

Pollutant	Los Gatos [1]			San Jose- Jackson Street[2]		
	2016	2017	2018	2016	2017	2018
Ozone (O_3)						
1-hour Maximum Concentration (ppm)	0.091	0.093	0.082	0.087	0.121	0.078
8-hour Maximum Concentration (ppm)	0.065	0.075	0.067	0.066	0.098	0.061
Number of Days Standard Exceeded						
CAAQS 1-hour (>0.09 ppm)	0	0	0	0	3	0
NAAQS 8-hour (>0.070 ppm)	0	3	0	0	4	0
Carbon Monoxide (CO)						
1-hour Maximum Concentration (ppm)	--	--	--	1.95	2.15	2.51
Number of Days Standard Exceeded						
NAAQS 1-hour (>35 ppm)	--	--	--	0	0	0
CAAQS 1 hour (>20 ppm)	--	--	--	0	0	0
Nitrogen Dioxide (NO_2)						
1-hour Maximum Concentration (ppm)	--	--	--	51.1	67.5	86.1
Number of Days Standard Exceeded						
NAAQS 1-hour (>100 ppm)	--	--	--	0	0	0
CAAQS 1-hour (>0.18 ppm)	--	--	--	0	0	0
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)						
National 24-hour Maximum Concentration	--	--	--	22.6	49.7	133.9
State 24-hour Maximum Concentration	--	--	--	22.7	49.7	133.9
Number of Days Standard Exceeded						
NAAQS 24-hour (>150 µg/m^3)	--	--	--	0	6	15
CAAQS 24-hour (>50 µg/m^3)	--	--	--	11	11	13
Particulate Matter Less Than 10 Microns (PM_{10})						
National 24-hour Maximum Concentration	--	--	--	40.0	69.4	155.8
State 24-hour Maximum Concentration	--	--	--	41.0	69.8	121.8
Number of Days Standard Exceeded						
NAAQS 24-hour (>150 µg/m^3)	--	--	--	0	0	1
CAAQS 24-hour (>50 µg/m^3)	--	--	--	0	6	4

Notes: NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter; NM = not measured

[1] Measurements taken at the Los Gatos Monitoring Station located at 306 University Avenue, Los Gatos, California 95030 (CARB# 43380).

[2] Measurements taken at the San Jose-Jackson Street Monitoring Station located at 156B Jackson Street, San Jose, California 95112 (CARB# 43383).

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (arb.ca.gov/adam).

2.3 SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive receptors in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The project site is located in the hills near the City of Saratoga. The surrounding land uses are predominantly vacant forestlands, with some scattered residences to the north and west. South and east of the project site are single-family residences. Table 3: Sensitive Receptors, lists the distances and locations of nearby sensitive receptors, which primarily include single- family residences.

Table 3: Sensitive Receptors

Receptor Description	Distance and Direction from the Precise Plan Area	From Sanitary Sewer Connection Area
Single-family residential	1,000 feet east	200 feet east
Single-family residential	1,100 feet southeast	1,150 feet southeast
Single-family residential	1,500 feet east	1,450 feet east
Single-family residential	1,600 feet west	2,760 feet west
Single-family residential	2,000 feet north	4,800 feet northwest
Winery and Event Center	2,400 feet southwest	3,500 feet southwest
St. Nicholas Orthodox Church	1.2 miles east	1.1 miles east
Saratoga Elementary School	1.4 miles east	1.3 miles east
The Home of Christ Church in Saratoga	1.4 miles southeast	1.3 miles southeast
Saratoga Quarry Park	0.6 miles southeast	0.6 miles southeast
Wildwood Park	1.25 miles east	1.1 miles east
Sanborn County Park	1,000 feet east	200 feet east

3 REGULATORY SETTING

3.1 FEDERAL

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the EPA developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead. Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The U.S. Environmental Protection Agency (EPA) has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in Table 4: State and Federal Ambient Air Quality Standards.

3.2 STATE OF CALIFORNIA

California Air Resources Board

CARB administers California's air quality policy. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in Table 4: State and Federal Ambient Air Quality Standards.

Table 4: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status
Ozone (O_3)	8 Hour	0.070 ppm (137 µg/m^3)	N[9]	0.070 ppm	N[4]
	1 Hour	0.09 ppm (180 µg/m^3)	N	NA	N/A[5]
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	A	9 ppm (10 mg/m^3)	A[6]
	1 Hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	A	0.10 ppm[11]	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	-	0.053 ppm (100 µg/m^3)	A
Sulfur Dioxide[12] (SO_2)	24 Hour	0.04 ppm (105 µg/m^3)	A	0.14 ppm (365 µg/m^3)	A
	1 Hour	0.25 ppm (655 µg/m^3)	A	0.075 ppm (196 µg/m^3)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 µg/m^3)	A
Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	N	150 µg/m^3	-U
	Annual Arithmetic Mean	20 µg/m^3	N[7]	NA	-
Fine Particulate Matter ($PM_{2.5}$)[15]	24-Hour	NA	-	35 µg/m^3	U/A
	Annual Arithmetic Mean	12 µg/m^3	N[7]	12 µg/m^3	N
Sulfates (SO_{4-2})	24 Hour	25 µg/m^3	A	NA	-
Lead (Pb)[13, 14]	30-Day Average	1.5 µg/m^3	-	NA	A
	Calendar Quarter	NA	-	1.5 µg/m^3	A
	Rolling 3-Month Average	NA	-	0.15 µg/m^3	-
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (0.15 µg/m^3)	U	NA	-
Vinyl Chloride (C_2H_3Cl)	24 Hour	0.01 ppm (26 µg/m^3)	-	NA	-
Visibility Reducing Particles[8]	8 Hour (10:00 to 18:00 PST)	-	U	-	-

A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; µg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; – = not indicated or no information available.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
2. National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m$_3$. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m^3.

   Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
3. National air quality standards are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.
4. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October

Table 4: State and Federal Ambient Air Quality Standards					
Pollutant	Averaging Time	State Standards[1]		Federal Standards[2]	
		Concentration	Attainment Status	Concentration[3]	Attainment Status

1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.

5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
7 In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.
8 Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.
10. On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.
12. On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 NAAQS.
13. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
15. In December 2012, EPA strengthened the annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter ($\mu g/m^3$). In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, 2017c http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

3.3 REGIONAL AND LOCAL

Bay Area Air Quality Management District

The BAAQMD is the regional agency with jurisdiction over the nine-county region located in the Basin. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM_{10} standard). The BAAQMD is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate on April 19, 2019, by the BAAQMD.

BAAQMD periodically develops air quality plans that outline the regional strategy to improve air quality and protect the climate. The most recent plan, 2017 Bay Area Clean Air Plan, includes a wide range of control measures designed to reduce emissions of air pollutants and GHGs, including the following examples that may be relevant to this project: reduce emissions of toxic air contaminants by adopting more stringent limits and methods for evaluating toxic risks; implement pricing measures to reduce travel demand; accelerate the widespread adoption of electric vehicles; promote the use of clean fuels; promote energy efficiency in both new and existing buildings; and promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_X), particulate matter, TACs, and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone; provides a control strategy to reduce ozone, PM, TACs, and greenhouse gases in a single, integrated plan; reviews progress in improving air quality in recent years; and establishes emission control measures to be adopted or implemented in both the short term and through 2050.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The following BAAQMD rules would limit emissions of air pollutants from construction and operation of the Project:

- Regulation 6, Rule 3. Wood-Burning Devices. The purpose of this rule is to limit emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance.
- Regulation 8, Rule 3. Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.
- Regulation 8, Rule 15. Emulsified and Liquid Asphalts. This rule dictates the reactive organic gases content of asphalt available for use during construction through regulating the sale and use of asphalt and limits the ROG content in asphalt. Although this rule does not directly apply to the project, it does dictate the ROG content of asphalt for use during the construction.
- Regulation 9, Rule 8. Organic Compounds. This rule limits the emissions of nitrogen oxides and carbon monoxide from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower.

BAAQMD prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement because of the Air Basin's nonattainment for federal and State ozone standards. The U.S. EPA revoked the 1-hour ozone standard and adopted an 8-hour ozone standard. The BAAQMD will address the new federal 8-hour ozone planning requirements once they are established.

3.4 LOCAL

City of Saratoga General Plan
Land Use Element

The City General Plan Land Use Element (LU) includes the following policies and implementation measures most directly related to air quality:

Goal LU 15: Improve local and regional air quality by ensuring all development projects incorporate all feasible measures to reduce air pollutants.

- Policy LU 15.1: Require development projects to comply with Bay Area Air Quality Management District (BAAQMD) measures to reduce fugitive dust emissions due to grading and construction activities.
- Policy LU 15.2: Encourage use of trip demand measures as part of major commercial and office development projects to reduce dependence on auto use.
- Policy LU 15.3: Discourage the use of wood burning fireplaces by limiting to one per residence, including outdoor/patio fireplaces.

Goal OSC 15**:** Improve local and regional air quality by ensuring that all development projects incorporate all feasible measures to reduce air pollutants.

- Policy OSC 15.1: Require development projects to comply with Bay Area Air Quality Management District (BAAQMD) measures to reduce dust emissions due to grading and construction activities.
- Policy OSC 15.2: Encourage use of trip demand measures as part of major commercial and office development projects to reduce dependence on automobile use.

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 AIR QUALITY THRESHOLDS

State CEQA Guidelines Appendix G

Based upon the criteria derived from State CEQA Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan?

AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

AQ-3 Expose sensitive receptors to substantial pollutant concentrations?

AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Air Quality Threshold

Under the California Environmental Quality Act (CEQA), the Bay Area Air Quality Management District (BAAQMD) is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act (FCAA), the BAAQMD has adopted Federal attainment plans for O_3 and $PM_{2.5}$. The BAAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The BAAQMD Options and Justification Report (dated October 2009) establishes thresholds based on substantial evidence, and the thresholds are consistent with the thresholds outlined within the 2010/2011 BAAQMD CEQA Air Quality Guidelines (and current 2017 CEQA Air Quality Guidelines). The thresholds have been developed by the BAAQMD in order to attain State and Federal ambient air quality standards. Therefore, projects below these thresholds would not violate an air quality standard and would not contribute substantially to an existing or projected air quality violation.

The BAAQMD's CEQA Air Quality Guidelines provides significance thresholds for both construction and operation of projects. Ultimately the lead agency determines the thresholds of significance for impacts. However, if a project proposes development in excess of the established thresholds, as outlined in Table 7, Bay Area Air Quality Management District Emissions Thresholds, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 5: Bay Area Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related	
	Average Daily Emissions (pounds/day)	Average Daily Emission (pounds/day)	Annual Average Emission (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Nitrogen Oxides (NO_X)	54	54	10
Coarse Particulates (PM_{10})	82 (exhaust)	82	15
Fine Particulates ($PM_{2.5}$)	54 (exhaust)	54	10
PM_{10} / $PM_{2.5}$ (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average 20.0 ppm (1-hour average)	

Source: Bay Area Air Quality Management District, 2017 CEQA Air Quality Guidelines, 2017.

4.2 METHODOLOGY

This air quality impact analysis considers construction and operational impacts associated with the Project. Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors. Air quality impacts were assessed according to CARB and BAAQMD recommended methodologies. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 AIR QUALITY ANALYSIS

Threshold AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The project site is an existing, operational winery, concert amphitheater, and associated uses. According to the County of Santa Clara General Plan, the project site is currently designated as Hillside. The Project would change the designation to Regional Commercial to allow for the proposed lodging use. The Project would consist of adjustments to the City Urban Service Area (USA) and Sphere of Influence (SOI) boundaries to include APNs 503-46-006 and 503-46-007. The new uses allowed by the Project would include lodging (up to 300 hotel rooms and ancillary uses), a new water tank, and the future connections to the Cupertino Sanitary District infrastructure. The lodging uses would create new employment opportunities of up to 75 new jobs. ABAG predicts that job opportunities in the City of Saratoga will grow from 8,750 in 2010 to 9,085 by 2040. As of 2017, there are 6,744 job opportunities in the City. While the Project was not contemplated by the City General Plan, the addition of 75 new jobs from lodging uses would be within the ABAG growth projections for the City of approximately 9,085 jobs by 2040 and would not exceed the ABAG growth projections for the City. In addition, employees could be commuting from nearby cities, not necessitating the need for new homes. Therefore, population growth from the Project would be consistent with ABAG's projections for the City and with the City's General Plan.

A project would be consistent with the 2017 Clean Air Plan Progress Report if it would not exceed the growth assumptions in the plan. The primary method of determining consistency with the 2017 Clean Air Plan growth assumptions is consistency with the General Plan land use designations and zoning designations for the site. It should be noted that the Clean Air Plan does not make a specific assumption for development on the site, but bases assumptions on growth in population, travel, and business, based on socioeconomic forecasts. As noted above, the Project would not exceed the growth assumptions in the General Plan. The Project proposes zoning and general plan land use designation changes that would primarily allow for increased short-term visitors to the site. Therefore, the growth assumptions in the Clean Air Plan would not be exceeded.

Given that approval of a project would not result in significant and unavoidable air quality impacts after the application of all feasible mitigation, the project is considered consistent with the 2017 Clean Air Plan. In addition, projects are considered consistent with the 2017 Clean Air Plan if they incorporate all applicable and feasible control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

The Project is consistent with the 2017 Clean Air Plan policies that are applicable to the project site. As discussed in **Error! Reference source not found.**, the Project would comply with city, state, and regional requirements.

Table 6: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	**Project Consistency**
Stationary Source Control Measures	
SS21: New Source Review of Toxic Air Contaminants	Consistent. The Project would not include uses that would generate new sources of TAC to impacts to the nearby sensitive receptors.
SS25: Coatings, Solvents, Lubricants, Sealants and Adhesives	Consistent. The project would comply with Regulation 8, Rule 3: Architectural Coatings, which would dictate the ROG content of paint available for use during construction (also required per MM AQ-1).
SS26: Surface Prep and Cleaning Solvent	
SS29: Asphaltic Concrete	Consistent. Paving activities associated with the Project would be required to utilize asphalt that does not exceed BAAQMD emission standards in Regulation 8, Rule 15.
SS30: Residential Fan Type Furnaces	Consistent. BAAQMD is the responsible party for implementation of this regulation. The Project would use the latest central furnaces that comply with the applicable regulations. The project would not conflict with BAAQMD's implementation of that measure.
SS31: General Particulate Matter Emissions Limitation	Consistent. This control measure is implemented by the BAAQMD through Regulation 6, Rule 1. This Rule Limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity. The Project would be required to comply with applicable BAAQMD rules.
SS32: Emergency Back-up Generators	Consistent. Use of back-up generators by the project is currently not anticipated. However, if emergency generators were to be installed they would be required to meet the BAAQMD's emissions standards for back-up generators.
SS33: Commercial Cooking Equipment	Consistent. The existing restaurant on site does not have a charbroiler. The project does include the potential development of additional restaurant facilities. However, if any kitchen facilities or restaurants occur and they install a charbroiler, a catalytic oxidizer system must also be installed pursuant to BAAQMD Rule 6-2.
SS34: Wood Smoke	Consistent. The Project would comply with BAAQMD Regulation 6, Rule 3 and prohibit the construction of wood burning appliances / fireplaces.
SS36: Particulate Matter from Trackout	Consistent. Mud and dirt that may be tracked out onto the nearby public roads during construction activities would be removed promptly by the contractor based on BAAQMD's requirements.
SS37: Particulate Matter from Asphalt Operations	Consistent. Paving and roofing activities associated with the project would be required to utilize best management practices to minimize the particulate matter created from the transport and application of road and roofing asphalt.
SS38: Fugitive Dust	Consistent. Material stockpiling and track out during grading activities as well as smoke and fumes from paving and roofing asphalt operations would be required to utilize best management practices, such as watering exposed surfaces twice a day, covering haul trucks, keeping vehicle speeds on unpaved roads under 15 mph, to minimize the creation of fugitive dust. See MM AQ-1 BAAQMD Basic Construction Measures for a more detailed list.
SS40: Odors	Consistent. The project would comply with Regulation 7 to strengthen odor standards and enhance enforceability.
Transportation Control Measures	
TR2: Trip Reduction Programs	Consistent. The Project would reduce overall vehicle trips as it would serve guests that are already visiting the Mountain Winery and staying at alternative hotels further away. Furthermore, MM GHG -1 would create a Commute Trip Reduction (CTP)/Transportation Demand Management (TDM) plan. The Mountain Winery site is not located within the general service area for VTA services. Therefore, the Project is not anticipated to have transit trips to/from the project site. However, as the Project would serve concert goers and winery
TR8: Ridesharing and Last-Mile Connections	

Table 6: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	**Project Consistency**
	visitors, the proposed hotel would serve an existing demand currently met by existing hotels in the surrounding area.
TR9: Bicycle and Pedestrian Access Facilities	Not Applicable. The existing and proposed land use designations of the project site support and enhance a rural character, promote the wise use of natural resources, and avoid natural hazards. There is currently no pedestrian access to/from the project site. Sidewalks along the Mountain Winery driveway are not feasible because they would not connect to any existing sidewalks and would dead end at Pierce Road. Bicyclists currently share the road with vehicles on Pierce Road and Highway 9. Bicycle lanes along the Mountain Winery driveway are not feasible because the bicycle lanes would not connect to any existing bicycle routes. In addition, the existing driveway varies in width and would not be able to safely accommodate bicyclists in both directions and vehicles accessing the project site.
TR10: Land Use Strategies	Consistent. This measure is a BAAQMD funding tool to maintain and disseminate information on current climate action plans and other local best practices and collaborate with regional partners to identify innovative funding mechanisms to help local governments address air quality and climate change in their general plans. As noted above, the Project would include a hotel at an existing winery and event center and would reduce the need to travel to off-site hotels. The Project would not conflict with implementation of this measure.
TR13: Parking Policies	Consistent. The Mountain Winery facility has 933 existing parking spaces. The existing parking is sufficient for the currently allowed uses and for the proposed uses. The existing parking lots would remain unaltered.
TR19: Medium and Heavy Duty Trucks	Not Applicable. Although the project does not involve warehousing or industrial uses that would generate substantial truck trips, the project would not conflict with the implementation of this measure.
TR22: Construction, Freight and Farming Equipment	Consistent. The Project would comply through implementation of Mitigation Measure AQ-1, which requires construction equipment (graders and scrapers) to meet the Tier 4 emissions standards.
Energy and Climate Control Measures	
EN1: Decarbonize Electricity Generation	Consistent. The Project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen and with the City of Saratoga's California Green Building Standards Code.
EN2: Decrease Electricity Demand	
Buildings Control Measures	
BL1: Green Buildings	Consistent. The Project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen.
L2: Decarbonize Buildings	
BL4: Urban Heat Island Mitigation	Consistent. The Project would use the existing parking, which would remain unaltered. Open space would be preserved and used for passive recreational uses serving the Project.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	Not Applicable. The project site is in a rural portion of Saratoga. The Project would maintain the existing natural vegetation to ensure continuation of existing visual screening of the property.
Waste Management Control Measures	
WA1: Landfills	Consistent. The waste service provider for the Project would be required to meet the AB 341 and SB 939, 1374, and 1383 requirements that require waste service providers to divert and recycle waste. Per Cal Green requirements the Project would recycle construction waste. Recycling is also required in Mitigation Measure GHG-1.
WA3: Green Waste Diversion	
WA4: Recycling and Waste Reduction	

Table 6: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	**Project Consistency**
Water Control Measures	
WR2: Support Water Conservation	Consistent: The project would implement water conservation measures and low flow fixtures as required by Title 24, CalGreen, and the City of Saratoga's Municipal Code Section 15-47 Water Efficient Landscaping Ordinance, which includes various specifications for plant types, water features, and irrigation design etc.
Source: BAAQMD, Clean Air Plan, 2017 and Kimley-Horn & Associates, 2019.	

The Mountain Winery hotel would host visitors who wish to stay at the winery and those who are attending the many concerts that are held each summer. While there are several hotels within a short drive of the winery, the new hotel would provide guests easier access to and from on-site concerts, as well as wine tastings and other activities. Although the proposed hotel is expected to provide additional jobs and some related trips to the Mountain Winery, the hotel itself is expected to mostly serve existing patrons of the Mountain Winery. Simply, patrons of the proposed hotel are assumed to be already traveling to the Mountain Winery and are currently staying at an alternative hotel further away than the proposed hotel. These patrons would continue to stay at existing hotels further away from the Mountain Winery if the proposed hotel was not constructed. The Project would create new employment opportunities. The addition of 75 new jobs from lodging uses would be within the ABAG growth projections for the City of approximately 9,085 jobs by 2040. In addition, employees may already be residents of the City or commute from nearby cities, not necessitating the need for new homes. Population growth from the Project would be consistent with ABAG's projections for the City and with the City's General Plan. Thus, the Project not exceed the assumptions in the General Plan EIR or the Clean Air Plan.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold AQ-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include ozone-precursor pollutants (i.e., ROG and NO_x) and PM_{10} and $PM_{2.5}$. Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Construction results in the temporary generation of emissions during demolition, site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the Project are estimated to last approximately 18 months. The Project's construction-related emissions were calculated using the BAAQMD-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Project demolition, site preparation, and grading are anticipated to begin in the Summer 2020. Although earthwork volumes have not yet been determined, the modeling assumed approximately 100,000 cubic yards of balanced earthwork onsite. Should be noted design guidelines for the Precise Plan include policies require grading is minimized and development over steep terrain is avoided. Paving for was modeled to be completed by Fall 2021 and Architectural Coating to be completed Winter 2021. Building construction was estimated to begin Fall of 2020 and last almost 14 months to Winter 2021. The exact construction timeline is unknown, however to be conservative, earlier dates were utilized in the modeling. This approach is conservative given that emissions factors decrease in future years due to regulatory and technological improvements and fleet turnover. See Appendix A: Air Quality Data for additional information regarding the construction assumptions used in this analysis. The Project's predicted maximum daily construction-related emissions are summarized in Table 7: Construction-Related Emissions .

Table 7: Construction-Related Emissions

Construction Year	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Unmitigated						
2020	10.87	128.89	5.02	4.62	18.21	9.97
2021	53.14	30.86	1.09	1.03	3.55	0.96
Maximum Unmitigated	**53.14**	**128.89**	**5.02**	**4.62**	**18.21**	**9.97**
BAAQMD Significance Threshold [2,3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Exceed BAAQMD Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**
Mitigated						
2020	4.14	42.46	2.20	2.02	7.86	4.28
2021	53.14	30.86	1.09	1.03	3.37	0.91
Maximum Mitigated	**53.14**	**42.46**	**2.20**	**2.02**	**7.86**	**4.28**
BAAQMD Threshold	*54*	*54*	*82*	*54*	*BMPs*	*BMPs*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
1. Emissions were calculated using CalEEMod. Mitigated emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; complete paving as soon as possible after grading; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible

Table 7: Construction-Related Emissions

Construction Year	Pollutant (maximum pounds per day)[1]					
			Exhaust		Fugitive Dust	
	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO_x)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)

sign with contact information to register dust complaints and take corrective action within 48 hours. Additionally, all graders and scrapers are required to meet CARB Tier 4 Final emissions standards.
2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2017.
3. BMPs = Best Management Practices. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Implementation of Basic Construction Mitigation measures are considered to mitigate fugitive dust emissions to be less than significant.
Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality Modeling Data*.

Fugitive Dust Emissions. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill operations, demolition, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. See Mitigation Measure AQ-1.

Construction Equipment and Worker Vehicle Exhaust. Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported onsite or offsite. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. Emitted pollutants would include ROG, NO_x, PM_{10}, and $PM_{2.5}$. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. See Mitigation Measure AQ-1. Additionally, the Mitigation Measure AQ-2 requires graders and scrapers used during construction to meet CARB Tier 4 Final emissions standards.

ROG Emissions. In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the BAAQMD, the ROG emissions associated with paving have been quantified with CalEEMod.

The highest concentration of ROG emissions would be generated from architectural coating beginning in summer 2021 and lasting approximately four months. This phase includes the interior and exterior painting as well as striping of all paved parking areas and roadways. Paints would be required to comply

with BAAQMD Regulation 8, Rule 3: Architectural Coating. Regulation 8, Rule 3 provides specifications on painting practices and regulates the ROG content of paint.

Summary. As shown in Table 7, all criteria pollutant emissions would remain below their respective thresholds. However, BAAQMD considers fugitive dust emissions to be potentially significant without implementation of fugitive dust controls. Accordingly, MM AQ-1 is required to reduce fugitive dust emissions to less than significant. NO_X emissions are primarily generated by engine combustion in construction equipment, haul trucks, and employee commuting, requiring the use of newer construction equipment with better emissions controls would reduce construction-related NO_X emissions.

The Project emissions would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Impacts would be less than significant.

Operational Emissions

Operational emissions for hotel developments are typically generated from mobile sources (burning of fossil fuels in cars); energy sources (cooling, heating, and cooking); and area sources (landscape equipment and household products). Table 8: Unmitigated Maximum Daily Project Operational Emissions shows that the Project's maximum emissions would not exceed BAAQMD operational thresholds.

Table 8: Unmitigated Maximum Daily Project Operational Emissions

Emissions Source	Pollutant (maximum pounds per day)[1]					
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Exhaust		Fugitive Dust	
			Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Project (300 Room Hotel)						
Area	10.86	0.01	0.00	0.00	0.00	0.00
Energy	0.57	5.18	0.39	0.39	0.00	0.00
Mobile	1.73	6.79	0.05	0.04	4.64	1.24
Total Project Emissions	**13.16**	**11.98**	**0.44**	**0.44**	**4.64**	**1.24**
BAAQMD Significance Threshold[2]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
BAAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

Notes:
1. Existing mobile emissions represent the vehicle emissions associated with visitors to the Mountain Winery under current conditions.
2. Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, 2017.

Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality and GHG Data*.

Mobile Sources. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport PM_{10} and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. Trip generation rates associated with the project were based on the Project Traffic Impact Study. Based on the Traffic Impact

Study, the Project would result in an average of approximately 1,431 total daily vehicle trips. Table 8 shows the net project emissions generated by vehicle traffic associated with the Project would not exceed established BAAQMD regional thresholds.

Energy Source Emissions. Energy source emissions would be generated as a result of electricity and natural gas (non-hearth) usage associated with the Project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. As shown in Table 8, energy source emissions from the Project would not exceed BAAQMD thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Area Source Emissions Area source emissions would be generated due to an increased demand for consumer products, architectural coating, hearths, and landscaping. As shown in Table 8, area source emissions from the Project would not exceed BAAQMD thresholds.

Total Operational Emissions. As indicated in Table 8, net project operational emissions would not exceed BAAQMD thresholds. As noted above, the BAAQMD has set its CEQA significance threshold based on the trigger levels for the federal NSR Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources. The NSR Program was created to ensure projects are consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, the project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur. Project operational emissions would be less than significant.

Cumulative Short-Term Emissions

The SFBAAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards and nonattainment for O_3 and $PM_{2.5}$ for Federal standards. As discussed above, the Project's construction-related emissions by themselves would not have the potential to exceed the BAAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The BAAQMD recommends Basic Construction Mitigation Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with BAAQMD construction-related mitigation requirements are considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Impacts

The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality

conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in Table 8, the Project's operational emissions would not exceed BAAQMD thresholds. As a result, operational emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Mitigation Measures:

AQ-1 **BAAQMD Basic Construction Measures.** Prior to any grading activities, the applicant shall prepare and implement A Construction Management Plan that includes the BAAQMD Basic Construction Mitigation Measures to minimize construction-related emissions. This shall plan shall first be reviewed and approved by the Director of Public Works/City Engineer. The BAAQMD Basic Construction Mitigation Measures are:

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 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.

AQ-2 **Off-Road Diesel-Powered Construction Equipment.** Prior to issuance of grading permits, the applicant shall prepare and submit documentation to the City of Saratoga that demonstrates that all off-road diesel-powered graders and scrapers meet the California Air Resources Board's Tier 4 Final off-road emissions standards.

Level of Significance: Less than significant impact with mitigation.

Threshold AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. Sensitive receptors in the area include single-family residences approximately 200 feet to the east across Pierce Road.

Toxic Air Contaminants

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known toxic air contaminants (TAC). Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. The closest sensitive receptor to the project site are the residences to the east and north of the project site. BAAQMD provides guidance for evaluating impacts from TACs in its CEQA Air Quality Guidelines document. As noted therein, an incremental cancer risk of greater than 10 cases per million at the Maximally Exposed Individual (MEI) will result in a significant impact. The BAAQMD considers exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 $\mu g/m^3$ from a single source to be significant. The BAAQMD significance threshold for non-cancer hazards is 1.0.

Stationary sources within a 1,000-foot radius of the project site were identified using BAAQMD's Stationary Source Screening Analysis Tools and consultation with the BAAQMD. BAAQMD confirmed no sources exist within 1,000-feet of the project site.

Construction-Related Diesel Particulate Matter

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors. The closest sensitive receptor are single-family residences approximately 200 feet east of the project site.

The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations.

Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur in various phases throughout the project site. Additionally, construction activities would limit idling to no more than five minutes (MM AQ-1), which would further reduce nearby

sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense year of construction, emissions of DPM would be generated from different locations on the project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by Project construction activities would not expose sensitive receptors to substantial amounts of air toxics and the Project would result in a less than significant impact.

Therefore, impacts associated with construction activities would be less than significant.

Mobile Sources

The Project would not place sensitive receptors within 1,000-feet of a major roadway (mobile TAC source). Additionally, the Project's effects to existing vehicle distribution and travel speeds would be nominal. Any changes to vehicle distribution and travel speeds can affect vehicle emissions rates, although these changes would be minimal and would not substantially change criteria pollutant emissions, which are primarily driven by vehicle miles travelled (VMT). Traffic is also predominantly light-duty and gasoline powered and therefore any shifts in traffic would not constitute a change in substantial cancer risk. The Project does not involve the increase of transit trips or routes and would not generate increased emissions from expanded service (e.g., increased bus idling service). Therefore, impacts related to cancer risk, hazards, and $PM_{2.5}$ concentrations from mobile sources would be less than significant at the project site.

Carbon Monoxide Hotspots

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

The SFBAAB is designated as in attainment for carbon monoxide (CO). Emissions and ambient concentrations of CO have decreased dramatically in the SFBAAB with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project would not increase traffic volumes at local intersections

to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation. Traffic would increase along surrounding roadways during long-term operational activities.

According to the Traffic Impact Analysis prepared for the Project (2019), the Project would generate 85 net new a.m. peak hour trips and 101 net new p.m. peak hour trips. The Project's effects to existing vehicle distribution and travel speeds would be nominal. Therefore, the project would not involve intersections with more than 24,000 or 44,000 vehicles per hour. As a result, the Project would not have the potential to create a CO hotspot and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction

According to the BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The Project does not include any uses identified by the BAAQMD as being associated with odors.

Construction activities associated with the Project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon Project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

Operational

BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds.

The Project includes lodging (up to 300 hotel rooms), a second water tank, and future connections to the Cupertino Sanitary District infrastructure. None of these uses are anticipated to generate odors.

With respect to odor impacts from adjacent and nearby properties that could affect project guests, land uses typically producing objectionable odors include agricultural uses, wastewater treatment facilities, waste-disposal facilities, food processing plants, chemical plants, composting, refineries, landfills, dairies,

and fiberglass molding. None of these uses are located near the project site. Impacts would be less-than-significant.

Mitigation Measures: No mitigation is required.

Level of Significance: No impact.

5.2 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

Cumulative Setting

The cumulative setting for air quality includes the City and the Air Basin. Air Basin is designated as a nonattainment area for state standards of ozone, PM_{10}, and $PM_{2.5}$. The Air Basin is designated as a nonattainment area for federal standards of ozone and $PM_{2.5,}$ attainment and serious maintenance for federal PM_{10} standards, and is designated as unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

Cumulative Impacts and Mitigation Measures

The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative operational emissions. However, with respect to regional air pollution, the development of the project would result in population growth that is consistent with ABAG projections. Therefore, the project would be consistent with the 2017 Clean Air Plan that uses ABAG population forecasts. The Project would increase VMT as shown in the Vehicle Miles Travelled analysis of the Transportation Impact Analysis and summarized in Impact TR-2. However, because the future buildout of the Project would primarily serve existing winery patrons there would be an overall increase in efficiency.

As described in threshold 7.1 above, the project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the discussion in threshold 7.2 addresses cumulative impacts and demonstrates that the project would not exceed the applicable BAAQMD thresholds. The BAAQMD CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Consistency with the 2017 Clean Air Plan control measures would ensure that the Project would not cumulatively contribute to air quality impacts in the Basin. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6 REFERENCES

1. Bay Area Air Quality Management District, *Planning Healthy Places*, 2016.
2. Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* 2017.
3. Bay Area Air Quality Management District, *Clean Air Plan*, 2017.
4. Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status,* 2017.
5. Bay Area Air Quality Management District, *Current Rules*, 2017.
6. California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, 2018.
7. California Air Pollution Control Officers Association (CAPCOA), *Health Risk Assessments for Proposed Land Use Projects*, 2009.
8. California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Top Four Summaries from 2015 to 2017*, 2018.
9. California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005.
10. California Air Resources Board, *Current Air Quality Standards*, 2016.
11. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000.
12. City of Saratoga, *General Plan,* 2014.
13. City of Saratoga, *Municipal Code*, 2019.
14. Federal Highway Administration*, Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents,* 2016.
15. Kimley-Horn & Associates, *Traffic Impact Study for the Mountain Winery Annexation Project,* August 2019.
16. Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, 2015.
17. United States Environmental Protection Agency, *National Ambient Air Quality Standards Table*, 2016.
18. United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants*, 2018.
19. United States Environmental Protection Agency, *Policy Assessment for the Review of the Lead National Ambient Air Quality Standards*, 2013.

1160667.1

Appendix A

Air Quality Modeling Data

Mountain Winery - Santa Clara County, Summer

Mountain Winery

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5,000.00	User Defined Unit	0.12	5,000.00	0
Other Asphalt Surfaces	250.00	1000sqft	5.74	250,000.00	0
Hotel	300.00	Room	10.00	435,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	146	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per PGE 2018 Corporate Responsibility and Sustainability Report.

Land Use - User defined industrial is water tank

Construction Phase - Anticipated construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - No demolition proposed

Off-road Equipment - Estimated construction equipment

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Site balanced, no import or export

Demolition - No demolition proposed

Grading - Site balanced with 100,000 cy

Vehicle Trips - Trip rate per Trip Generation table

Energy Use -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per BAAQMD basic control measures

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - per latest building code

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	95.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/10/2021	12/31/2021
tblConstructionPhase	PhaseEndDate	6/26/2020	5/31/2020
tblConstructionPhase	PhaseStartDate	11/13/2021	8/22/2021
tblGrading	AcresOfGrading	270.00	75.00
tblGrading	MaterialExported	0.00	100,000.00

tblGrading	MaterialImported	0.00	100,000.00
tblLandUse	LandUseSquareFeet	0.00	5,000.00
tblLandUse	LotAcreage	0.00	0.12
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	146
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	25,000.00	0.00
tblTripsAndVMT	WorkerTripNumber	43.00	20.00
tblVehicleTrips	CC_TL	6.60	29.70
tblVehicleTrips	CC_TTP	61.60	74.00
tblVehicleTrips	CNW_TL	6.60	10.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	14.70	12.00
tblVehicleTrips	CW_TTP	19.40	26.00
tblVehicleTrips	ST_TR	8.19	1.37
tblVehicleTrips	SU_TR	5.95	1.37
tblVehicleTrips	WD_TR	8.17	1.37

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2020	10.8704	128.8763	71.4150	0.1574	18.2141	5.0195	20.4125	9.9699	4.6179	11.9924	0.0000	15,248.7204	15,248.7204	4.8836	0.0000	15,370.8092
2021	53.0462	30.6373	29.9275	0.0856	3.5507	1.0933	4.6440	0.9575	1.0336	1.9911	0.0000	8,555.2335	8,555.2335	0.8273	0.0000	8,575.9167

Maximum	**53.0462**	**128.8763**	**71.4150**	**0.1574**	**18.2141**	**5.0195**	**20.4125**	**9.9699**	**4.6179**	**11.9924**	**0.0000**	**15,248.7204**	**15,248.7204**	**4.8836**	**0.0000**	**15,370.8092**

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	lb/day										lb/day					
2020	4.1390	42.4558	74.6376	0.1574	7.8635	2.1983	10.0618	4.2827	2.0225	6.3052	0.0000	15,248.7204	15,248.7204	4.8836	0.0000	15,370.8092
2021	53.0462	30.6373	29.9275	0.0856	3.3721	1.0933	4.4654	0.9137	1.0336	1.9472	0.0000	8,555.2335	8,555.2335	0.8273	0.0000	8,575.9167
Maximum	**53.0462**	**42.4558**	**74.6376**	**0.1574**	**7.8635**	**2.1983**	**10.0618**	**4.2827**	**2.0225**	**6.3052**	**0.0000**	**15,248.7204**	**15,248.7204**	**4.8836**	**0.0000**	**15,370.8092**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.53**	**54.18**	**-3.18**	**0.00**	**48.38**	**46.15**	**42.02**	**52.45**	**45.93**	**40.98**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Energy	0.5703	5.1844	4.3549	0.0311		0.3940	0.3940		0.3940	0.3940		6,221.2525	6,221.2525	0.1192	0.1141	6,258.2223
Mobile	0.9733	4.3425	16.0587	0.0589	5.3624	0.0461	5.4085	1.4314	0.0432	1.4746		5,935.4658	5,935.4658	0.1751		5,939.8421
Total	**12.4015**	**9.5321**	**20.9825**	**0.0901**	**5.3624**	**0.4422**	**5.8046**	**1.4314**	**0.4392**	**1.8706**		**12,157.9330**	**12,157.9330**	**0.2975**	**0.1141**	**12,199.3597**

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	lb/day										lb/day					
Area	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Energy	0.3004	2.7312	2.2942	0.0164		0.2076	0.2076		0.2076	0.2076		3,277.4530	3,277.4530	0.0628	0.0601	3,296.9293
Mobile	0.9524	4.2107	15.4737	0.0566	5.1479	0.0444	5.1923	1.3741	0.0415	1.4157		5,704.2663	5,704.2663	0.1688		5,708.4864
Total	**12.1108**	**6.9471**	**18.3367**	**0.0731**	**5.1479**	**0.2540**	**5.4019**	**1.3741**	**0.2511**	**1.6253**		**8,982.9339**	**8,982.9339**	**0.2349**	**0.0601**	**9,006.7109**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.34**	**27.12**	**12.61**	**18.90**	**4.00**	**42.56**	**6.94**	**4.00**	**42.82**	**13.12**	**0.00**	**26.11**	**26.11**	**21.06**	**47.32**	**26.17**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2020	5/31/2020	5	0	
2	Site Preparation	Site Preparation	6/27/2020	7/10/2020	5	10	
3	Grading	Grading	7/11/2020	8/21/2020	5	30	
4	Building Construction	Building Construction	8/22/2020	10/15/2021	5	300	
5	Paving	Paving	10/16/2021	11/12/2021	5	20	
6	Architectural Coating	Architectural Coating	8/22/2021	12/31/2021	5	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 660,900; Non-Residential Outdoor: 220,300; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	6	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	6	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Grading	17	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	290.00	113.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	58.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	lb/day										lb/day					
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
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
Worker	0.0626	0.0384	0.4951	1.4600e-003	0.1479	9.2000e-004	0.1488	0.0392	8.5000e-004	0.0401		145.0812	145.0812	3.5500e-003		145.1699
Total	**0.0626**	**0.0384**	**0.4951**	**1.4600e-003**	**0.1479**	**9.2000e-004**	**0.1488**	**0.0392**	**8.5000e-004**	**0.0401**		**145.0812**	**145.0812**	**3.5500e-003**		**145.1699**

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	lb/day										lb/day					
Fugitive Dust					7.7233	0.0000	7.7233	4.2454	0.0000	4.2454			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.7233**	**2.1974**	**9.9207**	**4.2454**	**2.0216**	**6.2670**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	lb/day										lb/day					
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
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
Worker	0.0626	0.0384	0.4951	1.4600e-003	0.1402	9.2000e-004	0.1411	0.0373	8.5000e-004	0.0382		145.0812	145.0812	3.5500e-003		145.1699
Total	**0.0626**	**0.0384**	**0.4951**	**1.4600e-003**	**0.1402**	**9.2000e-004**	**0.1411**	**0.0373**	**8.5000e-004**	**0.0382**		**145.0812**	**145.0812**	**3.5500e-003**		**145.1699**

3.4 Grading - 2020

Unmitigated Construction On-Site

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

Fugitive Dust					9.4273	0.0000	9.4273	3.7107	0.0000	3.7107			0.0000			0.0000
Off-Road	10.8009	128.8336	70.8650	0.1558		5.0185	5.0185		4.6170	4.6170		15,087.5191	15,087.5191	4.8796		15,209.5093
Total	**10.8009**	**128.8336**	**70.8650**	**0.1558**	**9.4273**	**5.0185**	**14.4458**	**3.7107**	**4.6170**	**8.3277**		**15,087.5191**	**15,087.5191**	**4.8796**		**15,209.5093**

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	lb/day										lb/day					
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
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
Worker	0.0695	0.0427	0.5501	1.6200e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		161.2013	161.2013	3.9400e-003		161.2999
Total	**0.0695**	**0.0427**	**0.5501**	**1.6200e-003**	**0.1643**	**1.0200e-003**	**0.1653**	**0.0436**	**9.4000e-004**	**0.0445**		**161.2013**	**161.2013**	**3.9400e-003**		**161.2999**

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	lb/day										lb/day					
Fugitive Dust					4.0302	0.0000	4.0302	1.5863	0.0000	1.5863			0.0000			0.0000
Off-Road	3.5938	27.3241	74.0875	0.1558		1.2690	1.2690		1.1846	1.1846	0.0000	15,087.5191	15,087.5191	4.8796		15,209.5093
Total	**3.5938**	**27.3241**	**74.0875**	**0.1558**	**4.0302**	**1.2690**	**5.2992**	**1.5863**	**1.1846**	**2.7709**	**0.0000**	**15,087.5191**	**15,087.5191**	**4.8796**		**15,209.5093**

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	lb/day										lb/day					
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
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
Worker	0.0695	0.0427	0.5501	1.6200e-003	0.1557	1.0200e-003	0.1568	0.0415	9.4000e-004	0.0424		161.2013	161.2013	3.9400e-003		161.2999
Total	**0.0695**	**0.0427**	**0.5501**	**1.6200e-003**	**0.1557**	**1.0200e-003**	**0.1568**	**0.0415**	**9.4000e-004**	**0.0424**		**161.2013**	**161.2013**	**3.9400e-003**		**161.2999**

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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	lb/day											lb/day				
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
Vendor	0.4130	12.1402	3.0688	0.0288	0.6920	0.0576	0.7495	0.1992	0.0551	0.2543		3,040.9426	3,040.9426	0.1386		3,044.4083
Worker	1.0080	0.6190	7.9760	0.0235	2.3823	0.0149	2.3971	0.6319	0.0137	0.6456		2,337.4185	2,337.4185	0.0572		2,338.8486
Total	**1.4210**	**12.7591**	**11.0448**	**0.0522**	**3.0742**	**0.0724**	**3.1467**	**0.8311**	**0.0688**	**0.8999**		**5,378.3611**	**5,378.3611**	**0.1958**		**5,383.2569**

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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	lb/day										lb/day					
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
Vendor	0.4130	12.1402	3.0688	0.0288	0.6624	0.0576	0.7200	0.1920	0.0551	0.2471		3,040.9426	3,040.9426	0.1386		3,044.4083
Worker	1.0080	0.6190	7.9760	0.0235	2.2581	0.0149	2.2729	0.6014	0.0137	0.6151		2,337.4185	2,337.4185	0.0572		2,338.8486

Total	**1.4210**	**12.7591**	**11.0448**	**0.0522**	**2.9204**	**0.0724**	**2.9929**	**0.7934**	**0.0688**	**0.8621**		**5,378.3611**	**5,378.3611**	**0.1958**		**5,383.2569**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	lb/day										lb/day					
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
Vendor	0.3405	11.0143	2.7652	0.0285	0.6920	0.0232	0.7152	0.1992	0.0222	0.2214		3,012.9436	3,012.9436	0.1305		3,016.2058
Worker	0.9339	0.5533	7.3080	0.0226	2.3823	0.0145	2.3968	0.6319	0.0133	0.6452		2,256.2316	2,256.2316	0.0513		2,257.5131
Total	**1.2744**	**11.5677**	**10.0731**	**0.0511**	**3.0743**	**0.0377**	**3.1120**	**0.8311**	**0.0355**	**0.8667**		**5,269.1752**	**5,269.1752**	**0.1818**		**5,273.7189**

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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	lb/day										lb/day					
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
Vendor	0.3405	11.0143	2.7652	0.0285	0.6624	0.0232	0.6856	0.1920	0.0222	0.2142		3,012.9436	3,012.9436	0.1305		3,016.2058
Worker	0.9339	0.5533	7.3080	0.0226	2.2581	0.0145	2.2725	0.6014	0.0133	0.6147		2,256.2316	2,256.2316	0.0513		2,257.5131
Total	**1.2744**	**11.5677**	**10.0731**	**0.0511**	**2.9205**	**0.0377**	**2.9582**	**0.7934**	**0.0355**	**0.8289**		**5,269.1752**	**5,269.1752**	**0.1818**		**5,273.7189**

3.6 Paving - 2021

Unmitigated Construction On-Site

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

Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	lb/day										lb/day					
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
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
Worker	0.0483	0.0286	0.3780	1.1700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		116.7016	116.7016	2.6500e-003		116.7679
Total	**0.0483**	**0.0286**	**0.3780**	**1.1700e-003**	**0.1232**	**7.5000e-004**	**0.1240**	**0.0327**	**6.9000e-004**	**0.0334**		**116.7016**	**116.7016**	**2.6500e-003**		**116.7679**

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	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	lb/day										lb/day					
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
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
Worker	0.0483	0.0286	0.3780	1.1700e-003	0.1168	7.5000e-004	0.1175	0.0311	6.9000e-004	0.0318		116.7016	116.7016	2.6500e-003		116.7679
Total	**0.0483**	**0.0286**	**0.3780**	**1.1700e-003**	**0.1168**	**7.5000e-004**	**0.1175**	**0.0311**	**6.9000e-004**	**0.0318**		**116.7016**	**116.7016**	**2.6500e-003**		**116.7679**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	49.4652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**49.6841**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	lb/day											lb/day				
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
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
Worker	0.1868	0.1107	1.4616	4.5300e-003	0.4765	2.8900e-003	0.4794	0.1264	2.6700e-003	0.1290		451.2463	451.2463	0.0103		451.5026
Total	**0.1868**	**0.1107**	**1.4616**	**4.5300e-003**	**0.4765**	**2.8900e-003**	**0.4794**	**0.1264**	**2.6700e-003**	**0.1290**		**451.2463**	**451.2463**	**0.0103**		**451.5026**

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	lb/day										lb/day					
Archit. Coating	49.4652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**49.6841**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	lb/day										lb/day					
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
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
Worker	0.1868	0.1107	1.4616	4.5300e-003	0.4516	2.8900e-003	0.4545	0.1203	2.6700e-003	0.1230		451.2463	451.2463	0.0103		451.5026

Total	**0.1868**	**0.1107**	**1.4616**	**4.5300e-003**	**0.4516**	**2.8900e-003**	**0.4545**	**0.1203**	**2.6700e-003**	**0.1230**		**451.2463**	**451.2463**	**0.0103**		**451.5026**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Implement Trip Reduction Program

Market Commute Trip Reduction Option

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9524	4.2107	15.4737	0.0566	5.1479	0.0444	5.1923	1.3741	0.0415	1.4157		5,704.2663	5,704.2663	0.1688		5,708.4864
Unmitigated	0.9733	4.3425	16.0587	0.0589	5.3624	0.0461	5.4085	1.4314	0.0432	1.4746		5,935.4658	5,935.4658	0.1751		5,939.8421

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	411.00	411.00	411.00	2,535,062	2,433,660
Other Asphalt Surfaces	0.00	0.00	0.00		
User Defined Industrial	0.00	0.00	0.00		
Total	411.00	411.00	411.00	2,535,062	2,433,660

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	12.00	29.70	10.00	26.00	74.00	0.00	58	38	4

Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Industrial	14.70	6.60	6.60	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	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Other Asphalt Surfaces	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
User Defined Industrial	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3004	2.7312	2.2942	0.0164		0.2076	0.2076		0.2076	0.2076		3,277.4530	3,277.4530	0.0628	0.0601	3,296.9293
NaturalGas Unmitigated	0.5703	5.1844	4.3549	0.0311		0.3940	0.3940		0.3940	0.3940		6,221.2525	6,221.2525	0.1192	0.1141	6,258.2223

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	lb/day										lb/day					
Hotel	52880.6	0.5703	5.1844	4.3549	0.0311		0.3940	0.3940		0.3940	0.3940		6,221.2525	6,221.2525	0.1192	0.1141	6,258.2223
Other Asphalt Surfaces	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
User Defined Industrial	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
Total		**0.5703**	**5.1844**	**4.3549**	**0.0311**		**0.3940**	**0.3940**		**0.3940**	**0.3940**		**6,221.2525**	**6,221.2525**	**0.1192**	**0.1141**	**6,258.2223**

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	lb/day										lb/day					
Hotel	27.8584	0.3004	2.7312	2.2942	0.0164		0.2076	0.2076		0.2076	0.2076		3,277.4530	3,277.4530	0.0628	0.0601	3,296.9293
Other Asphalt Surfaces	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
User Defined Industrial	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
Total		**0.3004**	**2.7312**	**2.2942**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**		**3,277.4530**	**3,277.4530**	**0.0628**	**0.0601**	**3,296.9293**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Unmitigated	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953

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	lb/day										lb/day					
Architectural Coating	1.2875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0531	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Total	**10.8580**	**5.2200e-003**	**0.5689**	**4.0000e-005**		**2.0300e-003**	**2.0300e-003**		**2.0300e-003**	**2.0300e-003**		**1.2146**	**1.2146**	**3.2300e-003**		**1.2953**

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	lb/day										lb/day					
Architectural Coating	1.2875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0531	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Total	**10.8580**	**5.2200e-003**	**0.5689**	**4.0000e-005**		**2.0300e-003**	**2.0300e-003**		**2.0300e-003**	**2.0300e-003**		**1.2146**	**1.2146**	**3.2300e-003**		**1.2953**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mountain Winery - Santa Clara County, Winter

Mountain Winery

Santa Clara County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5,000.00	User Defined Unit	0.12	5,000.00	0
Other Asphalt Surfaces	250.00	1000sqft	5.74	250,000.00	0
Hotel	300.00	Room	10.00	435,600.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	146	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Per PGE 2018 Corporate Responsibility and Sustainability Report.

Land Use - User defined industrial is water tank

Construction Phase - Anticipated construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - No demolition proposed

Off-road Equipment - Estimated construction equipment

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Site balanced, no import or export

Demolition - No demolition proposed

Grading - Site balanced with 100,000 cy

Vehicle Trips - Trip rate per Trip Generation table

Energy Use -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per BAAQMD basic control measures

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - per latest building code

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	95.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/10/2021	12/31/2021
tblConstructionPhase	PhaseEndDate	6/26/2020	5/31/2020
tblConstructionPhase	PhaseStartDate	11/13/2021	8/22/2021
tblGrading	AcresOfGrading	270.00	75.00
tblGrading	MaterialExported	0.00	100,000.00

tblGrading	MaterialImported	0.00	100,000.00
tblLandUse	LandUseSquareFeet	0.00	5,000.00
tblLandUse	LotAcreage	0.00	0.12
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	146
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	25,000.00	0.00
tblTripsAndVMT	WorkerTripNumber	43.00	20.00
tblVehicleTrips	CC_TL	6.60	29.70
tblVehicleTrips	CC_TTP	61.60	74.00
tblVehicleTrips	CNW_TL	6.60	10.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	14.70	12.00
tblVehicleTrips	CW_TTP	19.40	26.00
tblVehicleTrips	ST_TR	8.19	1.37
tblVehicleTrips	SU_TR	5.95	1.37
tblVehicleTrips	WD_TR	8.17	1.37

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2020	10.8748	128.8857	71.3747	0.1573	18.2141	5.0195	20.4125	9.9699	4.6179	11.9924	0.0000	15,235.6123	15,235.6123	4.8833	0.0000	15,357.6943
2021	53.1408	30.8594	29.6765	0.0826	3.5507	1.0941	4.6449	0.9575	1.0344	1.9919	0.0000	8,252.1073	8,252.1073	0.8335	0.0000	8,272.9451

Maximum	**53.1408**	**128.8857**	**71.3747**	**0.1573**	**18.2141**	**5.0195**	**20.4125**	**9.9699**	**4.6179**	**11.9924**	**0.0000**	**15,235.6123**	**15,235.6123**	**4.8833**	**0.0000**	**15,357.6943**

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	lb/day										lb/day					
2020	4.1430	42.4643	74.5972	0.1573	7.8635	2.1983	10.0618	4.2827	2.0225	6.3052	0.0000	15,235.6123	15,235.6123	4.8833	0.0000	15,357.6943
2021	53.1408	30.8594	29.6765	0.0826	3.3721	1.0941	4.4662	0.9137	1.0344	1.9480	0.0000	8,252.1073	8,252.1073	0.8335	0.0000	8,272.9451
Maximum	**53.1408**	**42.4643**	**74.5972**	**0.1573**	**7.8635**	**2.1983**	**10.0618**	**4.2827**	**2.0225**	**6.3052**	**0.0000**	**15,235.6123**	**15,235.6123**	**4.8833**	**0.0000**	**15,357.6943**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.52**	**54.10**	**-3.19**	**0.00**	**48.38**	**46.15**	**42.02**	**52.45**	**45.92**	**40.98**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Energy	0.5703	5.1844	4.3549	0.0311		0.3940	0.3940		0.3940	0.3940		6,221.2525	6,221.2525	0.1192	0.1141	6,258.2223
Mobile	0.8797	4.6976	14.8945	0.0549	5.3624	0.0463	5.4087	1.4314	0.0433	1.4747		5,534.1316	5,534.1316	0.1702		5,538.3875
Total	**12.3080**	**9.8872**	**19.8183**	**0.0860**	**5.3624**	**0.4423**	**5.8047**	**1.4314**	**0.4393**	**1.8707**		**11,756.5988**	**11,756.5988**	**0.2927**	**0.1141**	**11,797.9051**

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	lb/day										lb/day					
Area	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Energy	0.3004	2.7312	2.2942	0.0164		0.2076	0.2076		0.2076	0.2076		3,277.4530	3,277.4530	0.0628	0.0601	3,296.9293
Mobile	0.8594	4.5512	14.3812	0.0528	5.1479	0.0445	5.1924	1.3741	0.0416	1.4158		5,318.4882	5,318.4882	0.1644		5,322.5969
Total	**12.0178**	**7.2877**	**17.2443**	**0.0692**	**5.1479**	**0.2541**	**5.4020**	**1.3741**	**0.2512**	**1.6254**		**8,597.1558**	**8,597.1558**	**0.2304**	**0.0601**	**8,620.8214**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.36**	**26.29**	**12.99**	**19.60**	**4.00**	**42.55**	**6.94**	**4.00**	**42.81**	**13.11**	**0.00**	**26.87**	**26.87**	**21.29**	**47.32**	**26.93**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2020	5/31/2020	5	0	
2	Site Preparation	Site Preparation	6/27/2020	7/10/2020	5	10	
3	Grading	Grading	7/11/2020	8/21/2020	5	30	
4	Building Construction	Building Construction	8/22/2020	10/15/2021	5	300	
5	Paving	Paving	10/16/2021	11/12/2021	5	20	
6	Architectural Coating	Architectural Coating	8/22/2021	12/31/2021	5	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 660,900; Non-Residential Outdoor: 220,300; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	6	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	6	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Grading	17	20.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	290.00	113.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	58.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	lb/day										lb/day					
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
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
Worker	0.0666	0.0469	0.4587	1.3400e-003	0.1479	9.2000e-004	0.1488	0.0392	8.5000e-004	0.0401		133.2839	133.2839	3.3000e-003		133.3665
Total	**0.0666**	**0.0469**	**0.4587**	**1.3400e-003**	**0.1479**	**9.2000e-004**	**0.1488**	**0.0392**	**8.5000e-004**	**0.0401**		**133.2839**	**133.2839**	**3.3000e-003**		**133.3665**

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	lb/day										lb/day					
Fugitive Dust					7.7233	0.0000	7.7233	4.2454	0.0000	4.2454			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.7233**	**2.1974**	**9.9207**	**4.2454**	**2.0216**	**6.2670**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

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	lb/day										lb/day					
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
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
Worker	0.0666	0.0469	0.4587	1.3400e-003	0.1402	9.2000e-004	0.1411	0.0373	8.5000e-004	0.0382		133.2839	133.2839	3.3000e-003		133.3665
Total	**0.0666**	**0.0469**	**0.4587**	**1.3400e-003**	**0.1402**	**9.2000e-004**	**0.1411**	**0.0373**	**8.5000e-004**	**0.0382**		**133.2839**	**133.2839**	**3.3000e-003**		**133.3665**

3.4 Grading - 2020

Unmitigated Construction On-Site

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

Fugitive Dust					9.4273	0.0000	9.4273	3.7107	0.0000	3.7107			0.0000			0.0000
Off-Road	10.8009	128.8336	70.8650	0.1558		5.0185	5.0185		4.6170	4.6170		15,087.5191	15,087.5191	4.8796		15,209.5093
Total	**10.8009**	**128.8336**	**70.8650**	**0.1558**	**9.4273**	**5.0185**	**14.4458**	**3.7107**	**4.6170**	**8.3277**		**15,087.5191**	**15,087.5191**	**4.8796**		**15,209.5093**

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	lb/day										lb/day					
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
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
Worker	0.0739	0.0521	0.5097	1.4900e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		148.0932	148.0932	3.6700e-003		148.1850
Total	**0.0739**	**0.0521**	**0.5097**	**1.4900e-003**	**0.1643**	**1.0200e-003**	**0.1653**	**0.0436**	**9.4000e-004**	**0.0445**		**148.0932**	**148.0932**	**3.6700e-003**		**148.1850**

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	lb/day										lb/day					
Fugitive Dust					4.0302	0.0000	4.0302	1.5863	0.0000	1.5863			0.0000			0.0000
Off-Road	3.5938	27.3241	74.0875	0.1558		1.2690	1.2690		1.1846	1.1846	0.0000	15,087.5191	15,087.5191	4.8796		15,209.5093
Total	**3.5938**	**27.3241**	**74.0875**	**0.1558**	**4.0302**	**1.2690**	**5.2992**	**1.5863**	**1.1846**	**2.7709**	**0.0000**	**15,087.5191**	**15,087.5191**	**4.8796**		**15,209.5093**

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	lb/day										lb/day					
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
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
Worker	0.0739	0.0521	0.5097	1.4900e-003	0.1557	1.0200e-003	0.1568	0.0415	9.4000e-004	0.0424		148.0932	148.0932	3.6700e-003		148.1850
Total	**0.0739**	**0.0521**	**0.5097**	**1.4900e-003**	**0.1557**	**1.0200e-003**	**0.1568**	**0.0415**	**9.4000e-004**	**0.0424**		**148.0932**	**148.0932**	**3.6700e-003**		**148.1850**

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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	lb/day											lb/day				
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
Vendor	0.4357	12.2544	3.5204	0.0280	0.6920	0.0586	0.7505	0.1992	0.0560	0.2553		2,957.3815	2,957.3815	0.1498		2,961.1261
Worker	1.0722	0.7561	7.3905	0.0216	2.3823	0.0149	2.3971	0.6319	0.0137	0.6456		2,147.3519	2,147.3519	0.0532		2,148.6828
Total	**1.5079**	**13.0105**	**10.9108**	**0.0495**	**3.0742**	**0.0734**	**3.1477**	**0.8311**	**0.0697**	**0.9008**		**5,104.7334**	**5,104.7334**	**0.2030**		**5,109.8089**

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	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	lb/day										lb/day					
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
Vendor	0.4357	12.2544	3.5204	0.0280	0.6624	0.0586	0.7210	0.1920	0.0560	0.2480		2,957.3815	2,957.3815	0.1498		2,961.1261
Worker	1.0722	0.7561	7.3905	0.0216	2.2581	0.0149	2.2729	0.6014	0.0137	0.6151		2,147.3519	2,147.3519	0.0532		2,148.6828

Total	**1.5079**	**13.0105**	**10.9108**	**0.0495**	**2.9204**	**0.0734**	**2.9939**	**0.7934**	**0.0697**	**0.8631**		**5,104.7334**	**5,104.7334**	**0.2030**		**5,109.8089**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	lb/day										lb/day					
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
Vendor	0.3617	11.0896	3.1877	0.0277	0.6920	0.0240	0.7160	0.1992	0.0230	0.2222		2,929.9022	2,929.9022	0.1411		2,933.4293
Worker	0.9951	0.6757	6.7467	0.0208	2.3823	0.0145	2.3968	0.6319	0.0133	0.6452		2,072.8276	2,072.8276	0.0476		2,074.0172
Total	**1.3568**	**11.7653**	**9.9344**	**0.0485**	**3.0743**	**0.0385**	**3.1128**	**0.8311**	**0.0363**	**0.8674**		**5,002.7298**	**5,002.7298**	**0.1887**		**5,007.4465**

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	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

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	lb/day										lb/day					
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
Vendor	0.3617	11.0896	3.1877	0.0277	0.6624	0.0240	0.6865	0.1920	0.0230	0.2150		2,929.9022	2,929.9022	0.1411		2,933.4293
Worker	0.9951	0.6757	6.7467	0.0208	2.2581	0.0145	2.2725	0.6014	0.0133	0.6147		2,072.8276	2,072.8276	0.0476		2,074.0172
Total	**1.3568**	**11.7653**	**9.9344**	**0.0485**	**2.9205**	**0.0385**	**2.9590**	**0.7934**	**0.0363**	**0.8297**		**5,002.7298**	**5,002.7298**	**0.1887**		**5,007.4465**

3.6 Paving - 2021

Unmitigated Construction On-Site

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

Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	lb/day										lb/day					
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
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
Worker	0.0515	0.0350	0.3490	1.0800e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		107.2152	107.2152	2.4600e-003		107.2768
Total	**0.0515**	**0.0350**	**0.3490**	**1.0800e-003**	**0.1232**	**7.5000e-004**	**0.1240**	**0.0327**	**6.9000e-004**	**0.0334**		**107.2152**	**107.2152**	**2.4600e-003**		**107.2768**

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	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0075**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

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	lb/day										lb/day					
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
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
Worker	0.0515	0.0350	0.3490	1.0800e-003	0.1168	7.5000e-004	0.1175	0.0311	6.9000e-004	0.0318		107.2152	107.2152	2.4600e-003		107.2768
Total	**0.0515**	**0.0350**	**0.3490**	**1.0800e-003**	**0.1168**	**7.5000e-004**	**0.1175**	**0.0311**	**6.9000e-004**	**0.0318**		**107.2152**	**107.2152**	**2.4600e-003**		**107.2768**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	49.4652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**49.6841**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	lb/day											lb/day				
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
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
Worker	0.1990	0.1351	1.3493	4.1600e-003	0.4765	2.8900e-003	0.4794	0.1264	2.6700e-003	0.1290		414.5655	414.5655	9.5200e-003		414.8035
Total	**0.1990**	**0.1351**	**1.3493**	**4.1600e-003**	**0.4765**	**2.8900e-003**	**0.4794**	**0.1264**	**2.6700e-003**	**0.1290**		**414.5655**	**414.5655**	**9.5200e-003**		**414.8035**

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	lb/day										lb/day					
Archit. Coating	49.4652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**49.6841**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	lb/day										lb/day					
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
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
Worker	0.1990	0.1351	1.3493	4.1600e-003	0.4516	2.8900e-003	0.4545	0.1203	2.6700e-003	0.1230		414.5655	414.5655	9.5200e-003		414.8035

Total	**0.1990**	**0.1351**	**1.3493**	**4.1600e-003**	**0.4516**	**2.8900e-003**	**0.4545**	**0.1203**	**2.6700e-003**	**0.1230**		**414.5655**	**414.5655**	**9.5200e-003**		**414.8035**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Implement Trip Reduction Program

Market Commute Trip Reduction Option

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8594	4.5512	14.3812	0.0528	5.1479	0.0445	5.1924	1.3741	0.0416	1.4158		5,318.4882	5,318.4882	0.1644		5,322.5969
Unmitigated	0.8797	4.6976	14.8945	0.0549	5.3624	0.0463	5.4087	1.4314	0.0433	1.4747		5,534.1316	5,534.1316	0.1702		5,538.3875

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	411.00	411.00	411.00	2,535,062	2,433,660
Other Asphalt Surfaces	0.00	0.00	0.00		
User Defined Industrial	0.00	0.00	0.00		
Total	411.00	411.00	411.00	2,535,062	2,433,660

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	12.00	29.70	10.00	26.00	74.00	0.00	58	38	4

Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
User Defined Industrial	14.70	6.60	6.60	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	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Other Asphalt Surfaces	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
User Defined Industrial	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3004	2.7312	2.2942	0.0164		0.2076	0.2076		0.2076	0.2076		3,277.4530	3,277.4530	0.0628	0.0601	3,296.9293
NaturalGas Unmitigated	0.5703	5.1844	4.3549	0.0311		0.3940	0.3940		0.3940	0.3940		6,221.2525	6,221.2525	0.1192	0.1141	6,258.2223

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	lb/day										lb/day					
Hotel	52880.6	0.5703	5.1844	4.3549	0.0311		0.3940	0.3940		0.3940	0.3940		6,221.2525	6,221.2525	0.1192	0.1141	6,258.2223
Other Asphalt Surfaces	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
User Defined Industrial	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
Total		**0.5703**	**5.1844**	**4.3549**	**0.0311**		**0.3940**	**0.3940**		**0.3940**	**0.3940**		**6,221.2525**	**6,221.2525**	**0.1192**	**0.1141**	**6,258.2223**

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	lb/day										lb/day					
Hotel	27.8584	0.3004	2.7312	2.2942	0.0164		0.2076	0.2076		0.2076	0.2076		3,277.4530	3,277.4530	0.0628	0.0601	3,296.9293
Other Asphalt Surfaces	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
User Defined Industrial	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
Total		**0.3004**	**2.7312**	**2.2942**	**0.0164**		**0.2076**	**0.2076**		**0.2076**	**0.2076**		**3,277.4530**	**3,277.4530**	**0.0628**	**0.0601**	**3,296.9293**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Unmitigated	10.8580	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953

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	lb/day										lb/day					
Architectural Coating	1.2875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0531	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Total	**10.8580**	**5.2200e-003**	**0.5689**	**4.0000e-005**		**2.0300e-003**	**2.0300e-003**		**2.0300e-003**	**2.0300e-003**		**1.2146**	**1.2146**	**3.2300e-003**		**1.2953**

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	lb/day										lb/day					
Architectural Coating	1.2875					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0531	5.2200e-003	0.5689	4.0000e-005		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003		1.2146	1.2146	3.2300e-003		1.2953
Total	**10.8580**	**5.2200e-003**	**0.5689**	**4.0000e-005**		**2.0300e-003**	**2.0300e-003**		**2.0300e-003**	**2.0300e-003**		**1.2146**	**1.2146**	**3.2300e-003**		**1.2953**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation