Air Quality Assessment
Woz Way Project
City of San José, California

Prepared by:

Kimley-Horn and Associates, Inc.
1100 W Town and Country Road, Suite 700
Orange, California 92868
Contact: Mr. Ace Malisos

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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
µg/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. The purpose of this Air Quality is to evaluate potential short- and long-term noise impacts resulting from implementation of the proposed Woz Way Project in the City of San José.

1.1 PROJECT LOCATION

The proposed Project is located on Woz Way in western San José. *Figure 1: Regional Vicinity* and *Figure 2: Site Vicinity*, depict the Project site in a regional and local context. The Project site is currently located on 18 parcels or approximately 3.08 acres, on Woz Way and South Almaden Boulevard in the City of San José. However, one parcel is excluded for the purposes of Air Quality Assessment Project site. Therefore, 2.93-acre site development boundary will be analyzed.

The Project site is in an area of transitional land uses from a surface parking lot to the north, single-story single-family homes and commercial uses to the east, Interstate 280 (I-280) to the south, and Guadalupe River Park and Gardens to the west. The Guadalupe River Trail and river are located along the western boundary of the Project site to the immediate west of Locust Street. Elevated sections of the I-280 and State Route 87 (SR-87) interchange is visually prominent from the project site. Currently, the 2.64-acre Project site is developed as a residential community. There are 17 single-family homes on the Project site and Locust Street which connects some of the residential uses to Woz Way. There is existing landscaping and surface light fixtures along the frontages of the single-family residences.

1.2 PROJECT DESCRIPTION

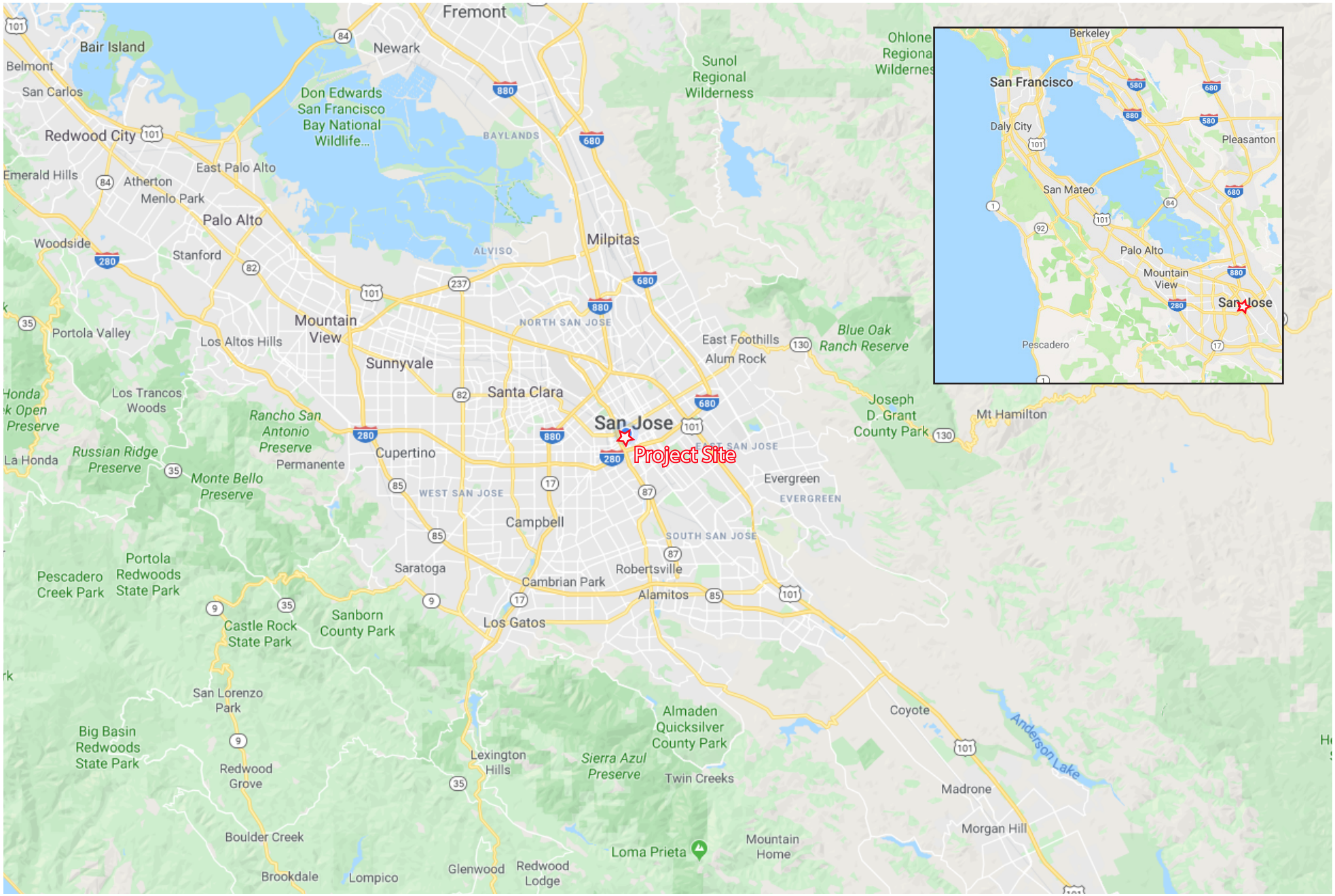
The Project site is located in an urban area with a mix of uses including commercial, office, and residential uses. The proposed Project existing zoning designation is Downtown Primary Commercial and proposed land use designation is Downtown Commercial.

The proposed Project is an infill development that maximizes the use of land in the Downtown Core Area. The Project proposes the development of two 20 story office towers with approximately 1,245,399 square feet (sf) of office space, approximately 6,073 sf of ground floor retail, and four levels of underground parking. The retail uses would provide services and amenities to visitors and residents in the surrounding area. The proposed Project also includes four levels of underground parking and four levels of on- and above- ground parking at the south tower. See *Figure 3*, *Site Plan*.

Currently, vehicle access to the project site is from Woz Way and from South Almaden Boulevard. Vehicle access is also available from the intersection of Woz Way and Locust Street. Currently, Locust Street is not a through road. The project includes an internal driveway, located between the proposed north and south towers, with ingress and egress on both Woz Way and Almaden Boulevard. The primary entrance to the north tower lobby is provided from Woz Way and also via the internal driveway. The primary entrance to the south tower lobby is provided from the internal driveway. Vehicle ingress and egress to all parking areas (Levels B1 to B4, and Levels 1 to 4) is provided via the internal driveway, on the north side of the south tower, and via a driveway on Almaden Boulevard. There is existing utility access (water, sewer, electricity, gas) to the Project site. The project site is crossed by the Guadalupe River Trail along the western boundary of the Project site. Pedestrian access to the trail is at the intersection of Woz Way and Locust Street.

In addition, the proposed Project site, is located within 0.33 miles of bus routes, and 0.25 miles north-east of the Children's Discovery Museum light rail station, therefore these employment opportunities would be easily accessible via transit, furthering the City's General Plan goals to support a healthy community, reduce traffic congestion and decrease greenhouse gas emissions and energy consumption. The proposed Project would increase population and employment, thereby promoting the Downtown Strategy 2040 Final EIR goals for focused and sustainable growth, because it supports the intensification of development in an urbanized area that is currently served by existing roads, transit, utilities, and public service. The Project would include a number of travel demand measures (TDM) such as commute trip reduction marketing/education, employee parking "cash-out" for certain employees, subsidized or discounted transit passes for some employees, telecommuting and alternative work schedules and ride-sharing programs. These TDM Programs would help reduce vehicle miles traveled (VMT) and mobile greenhouse gas emissions.

Construction is anticipated to begin in early 2021 and last approximately 30 months until summer of 2023. Construction methods would include demolition, site preparation, grading, paving, building construction, and architectural coating. Construction of the Project would be required to be consistent with the City's Best Management Practices and California Building Code. Per the Downtown Strategy 2040 EIR and GP Policy MS-13.1, the proposed Project would implement control measures that ensure that construction emissions do not exceed BAAQMD significance thresholds. The Project would use a CARB certified Tier 4 off-road equipment fleet to meet this standard.



Source: Google Earth, 2020

Figure 1: Regional Map

Woz Way Project

Not to scale

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Source: Nearmap, 2020

Figure 2: Project Vicinity Map

Woz Way Project

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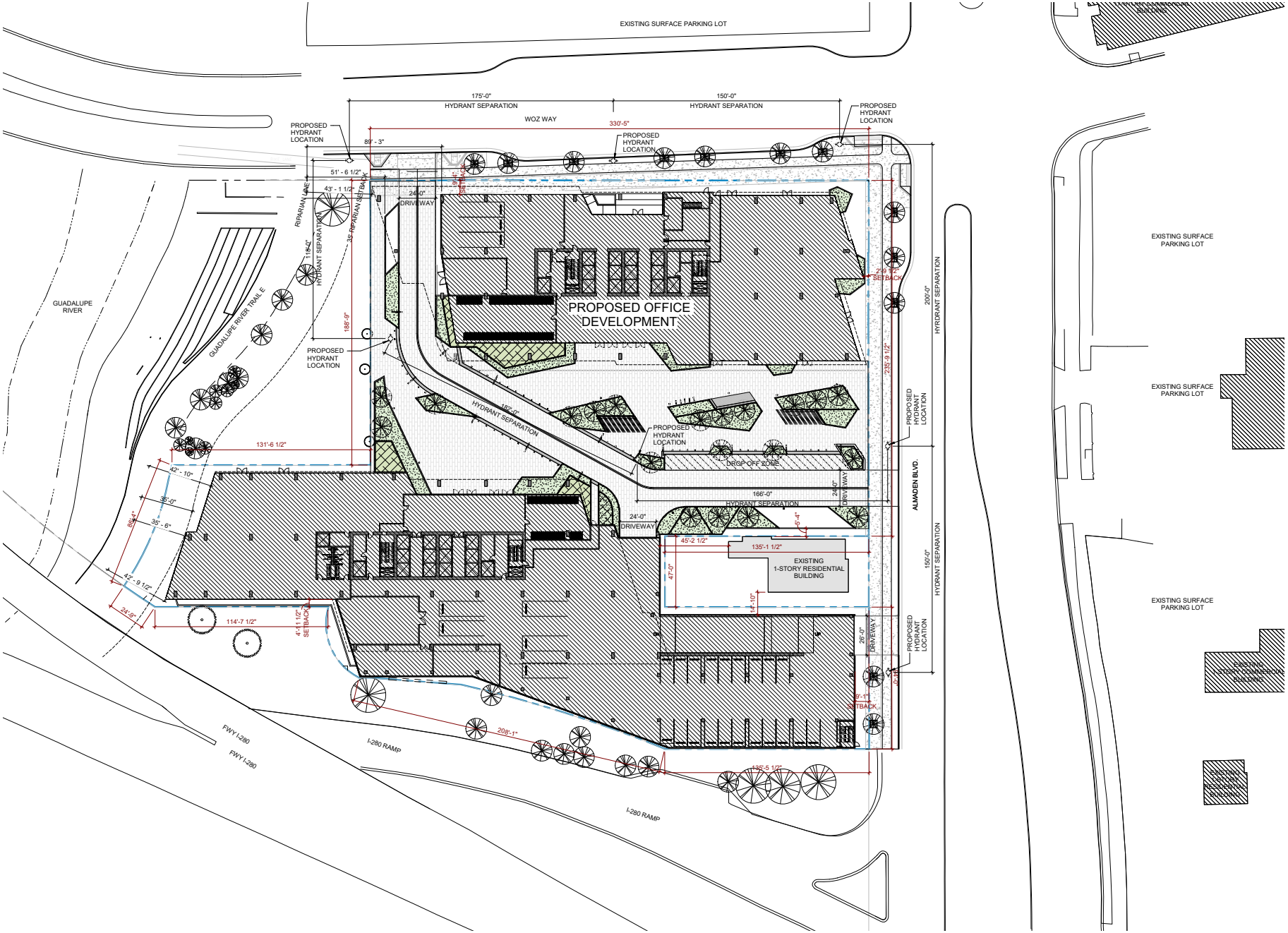

Source: C2K Architecture, 2020

Figure 3: Site Map

Woz Way Project

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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 San José and Santa Clara County; on the southern perimeter of the San Francisco Bay. The City of San José 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 15 inches in this City, 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	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to

Table 1: Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
	sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	global warming and nutrient overloading which 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.

[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 November 4, 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 San José -Jackson Street Monitoring Station located approximately 1.5 miles northeast of the project site. Local air quality data from 2016 to 2018 is provided in *Table 2: Ambient Air Quality Data* 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 the closest monitoring stations. 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	San José - Jackson Street[1]		
	2016	2017	2018
Ozone (O_3)			
1-hour Maximum Concentration (ppm)	0.087	0.121	0.078
8-hour Maximum Concentration (ppm)	0.066	0.098	0.061
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	0	3	0
NAAQS 8-hour (>0.070 ppm)	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

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 San José -Jackson Street Monitoring Station located at 156B Jackson Street, San José, 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 an urban area in City of San José. The surrounding land uses are predominantly residential, with some offices. The eastern boundary of the site is Almaden Boulevard. *Table 3: Sensitive Receptors*, lists the distances and locations of nearby sensitive receptors, which primarily include single- family residences. See *Figure 4: Sensitive Receptor Locations* for more details.

Table 3: Sensitive Receptors

Receptor Description		**Distance and Direction from the Project Site**
1	Single-family residential community	Adjoining
2	Single-family residential community	150 feet east
3	Guadalupe River and Park	500 feet north
4	Children's Discovery Museum	500 feet north
5	San José Convention Center	750 feet northwest
6	Hilton San José	1,000 feet north
7	San José Performing Arts Center	1,200 feet north
8	Rocketship Mateo Sheedy Elementary School	1,300 feet south
9	Parque De Los Pobladores	1,400 northeast
10	Notre Dame High School	1,800 feet east
11	Plaza De Cesar Chavez	0.3 miles north
12	The Tech Museum of Innovation	0.35 miles northeast

Source: Nearmap, 2020

Figure 4: Sensitive Receptor Locations

Woz Way Project

Not to scale

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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.

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

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 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*, 2017. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

3.3 REGIONAL

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 San José General Plan

The San José General Plan includes the following policies intended to control or reduce air pollution impacts:

Policy MS-10.1: Assess projected air emissions from new development in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards. Identify and implement air emissions reduction measures.

Policy MS – 10.2: States that the City should take into consideration the cumulative air quality impacts from proposed developments and should establish and enforce appropriate land uses and regulations to reduce air pollution consistent with the region's Clean Air Plan and State law.

Policy MS – 10.6: Encourage mixed land use development near transit lines and provide retail and other types of service-oriented uses within walking distance to minimize automobile dependent development.

Policy MS – 11.1: Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.

Policy MS – 11.2: For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

Policy MS – 11.3: Review projects generating significant heavy-duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

Policy MS-11.5: Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

Policy MS-13.1: Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Policy MS-13.3: Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board's air toxic control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

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 Thresholds

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 5: 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)	
Risk and Hazards for new sources and receptors (Individual Project)	Same as Operational Thresholds	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor	

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. 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. Air quality impacts were assessed according to CARB and BAAQMD recommended methodologies.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction would generate emissions of criteria air pollutants and precursors. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod.

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage), and mobile sources (motor vehicles from Project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The increase of traffic over existing conditions as a result of the Project was obtained from the Project's Transportation Analysis prepared by Kimley-Horn (2020). Other operational emissions from area and energy sources were quantified in CalEEMod based on land use data.

As discussed above, the BAAQMD provides significance thresholds for emissions associated with proposed Project construction and operations. The proposed Project's construction and operational emissions are compared to the daily criteria pollutant emissions significance thresholds in order to determine the significance of a Project's impact on air quality.

As noted in the BAAQMD CEQA Air Quality Guidelines, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified project-level significance thresholds, its emissions would be cumulatively considerable, resulting in significant air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary.

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 most recently adopted plan, the Clean Air Plan, in the Basin outlines how the San Francisco Area will attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions.

The Clean Air Plan assumptions for projected air emissions and pollutants in San José are based on the Envision San José 2040 General Plan Supplemental Program EIR Land Use and Transportation Designation Map which designates the project zoning as "Downtown Primary Commercial". Thus, the proposed Project would not significantly affect regional vehicle miles travelled pursuant to the CEQA Guidelines (Section 15206). The proposed project would also not have the potential to exceed the level of population or housing in regional planning efforts. The proposed Project consists of office and retail uses consistent with the proposed General Plan land use designation and would not increase the regional population growth or cause changes in vehicle traffic that would obstruct implementation of the Clean Air Plan in the San Francisco Bay Area Basin.

As described below, in the corresponding Impacts, construction and operational air quality emissions generated by the proposed Project would not exceed the BAAQMD's emissions thresholds. Since the proposed Project will not exceed these thresholds, the proposed Project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants and would not contribute to any non-attainment areas in the Basin.

The Project would change the designation to Downtown/Downtown Commercial to allow for the proposed office development. The new uses allowed by the Project include 1,245,399 square feet of office space and 6,073 square feet of retail space. The proposed development would result in 5,147 new employment opportunities. ABAG predicts that job opportunities in the City of San José will grow from 387,510 in 2010 to 554,875 by 2040. As of 2015, there are 359,128 job opportunities in the City. While the Project was not contemplated by the City General Plan, the addition of 5,147 new jobs would be within the ABAG growth projections for the City of approximately 554,875 jobs by 2040. Accordingly, population growth would be needed to support the job growth anticipated by ABAG. 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. The Project proposes General Plan land use designation changes that would primarily allow for increased job opportunities and indirectly, increased population growth. However, the Project would not exceed the ABAG growth assumptions for employment in the City. 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 *Table 6: Project Consistency with Applicable Clean Air Plan Control Measures*, 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 City Standard Permit Conditions). The Project is required to use low-VOC paints (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. This BAAQMD control measure regulates furnace emissions. The Project would use the latest central furnaces, which are required to 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 Project does include the potential development of additional restaurant facilities in the retail area. 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.

Table 6: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	**Project Consistency**
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 City of San José Standard Permit Conditions for a more detailed list.
SS40: Odors	**Consistent**. The project is an office development and is not anticipated to generate odors.
Transportation Control Measures	
TR2: Trip Reduction Programs	**Consistent**. The Project would include a number of travel demand measures (TDM) such as commute trip reduction marketing/education, employee parking "cash-out" for certain employees, subsidized or discounted transit passes for some employees, telecommuting and alternative work schedules and ride-sharing programs. These TDM Programs would help reduce vehicle miles traveled (VMT) and mobile greenhouse gas emissions.
TR8: Ridesharing and Last-Mile Connections	
TR9: Bicycle and Pedestrian Access Facilities	**Consistent**. There is currently pedestrian access to/from the Project site via sidewalks along Locust Street, Woz Way, and Almaden Boulevard. Bicyclists currently share the road with vehicles on Almaden Boulevard, Woz Way and Reed Street. Bicycle lanes along the Almaden Boulevard, Woz Way, and Reed Street would remain and would connect to any existing bicycle routes. In addition, the proposed driveways would be able to safely accommodate bicyclists in both directions and vehicles accessing the Project site. Additionally, the Project would provide improvements to enhance the pedestrian access on- and off-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. In addition, the proposed Project site is located within 0.33 miles of bus Routes and 0.25 miles north-east of the Children's Discovery Museum light rail station, therefore these employment opportunities would be easily accessible via transit, furthering the City's General Plan goals to support a healthy community, reduce traffic congestion and decrease greenhouse gas emissions and energy consumption. The Project would not conflict with implementation of this measure.
TR13: Parking Policies	**Consistent**. The proposed Project would create approximately 1,251 parking spaces. The proposed parking is sufficient for the proposed uses.
TR19: Medium and Heavy Duty Trucks	**Not Applicable**. 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 the City of San José Downtown Strategy EIR and GP Policy 13.1. The Project requires

Table 6: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	**Project Consistency**
	construction equipment over 25 horsepower to meet the Tier 4 emissions standards per MM AQ-1.
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. The proposed development would be constructed in compliance with the City's Council Policy 6-32 and the City's Green Building Ordinance.
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. The proposed development would be constructed in compliance with the City's Council Policy 6-32 and the City's Green Building Ordinance.
L2: Decarbonize Buildings	
BL4: Urban Heat Island Mitigation	**Consistent**. The Project would demolish an existing roadway and 14 single-family homes to create two towers. The Project would include some open space and landscaping for passive recreational uses serving the Project.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Consistent**. The Project includes minor landscaping with native vegetation and trees.
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.
WA3: Green Waste Diversion	
WA4: Recycling and Waste Reduction	
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 San José's Municipal Code Section 15-11 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, 2021.	

The addition of 5,147 new jobs would be within the ABAG growth projections for the City of approximately 554,875 jobs by 2040 and would not exceed the ABAG growth projections for the City. Therefore, population growth from the Project would be consistent with ABAG's projections for the City and with the City's General Plan. In addition, the City of San José is "housing-rich", and the increase of jobs would promote a jobs/housing balance that is closer to 1 to 1. 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 would 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 Project involves construction activities associated with demolition of the existing single-family homes and Locust Street, site preparation, grading, paving, building construction, and architectural coating applications. Demolition is expected to be approximately 3,365 tons. Site grading would require approximately 191,000 cubic yards of exported material.

The Project would be constructed over approximately 30 months starting in January 2021. For the purposes of this analysis, construction is assumed to begin in an earlier year as a conservative approach. Assuming an earlier year is conservative because a later construction year start date would result in lower emissions due to equipment fleet turnover and emission control regulations. Construction would occur in one phase with distinct activities/sub-phases (i.e., demolition, grading, paving, building construction). Emissions for each construction activity have been quantified based upon the phase duration and equipment types. The analysis of daily construction emissions has been prepared and is shown in *Table 7: Construction-Related Emissions*.

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 ($PM_{2.5}$)
Unmitigated Emissions						
2021	5.11	67.48	2.05	1.88	18.21	9.97
2022	79.14	47.71	0.99	0.95	8.35	2.26
2023	78.61	39.16	0.83	0.79	8.35	2.26
Maximum	**79.14**	**67.48**	**2.05**	**1.88**	**18.21**	**9.97**
BAAQMD Significance Threshold [2,3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*

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 ($PM_{2.5}$)
Exceed BAAQMD Threshold?	**Yes**	**Yes**	**No**	**No**	**N/A**	**N/A**
Mitigated Emissions						
2021	3.61	43.34	0.21	0.21	7.86	4.28
2022	36.64	34.30	0.28	0.27	7.93	2.16
2023	36.23	27.05	0.26	0.22	7.93	2.16
Maximum	**36.64**	**43.34**	**0.28**	**0.27**	**7.93**	**4.28**
BAAQMD Significance Threshold [2,3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod. Mitigated emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects, City Standard Permit Conditions, MM AQ-1 and GP Policy MS-13.1. 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 sign with contact information to register dust complaints and take corrective action within 48 hours. These measures were incorporated into CalEEMod mitigation module; therefore, the effects of standard conditions and mitigation are shown as mitigated scenario. Additionally, all construction equipment over 25 horsepower are required to meet CARB Tier 4 Final emissions standards per MM AQ-1. The Project is required to use low-VOC paint (50 g/L or less) (MM AQ-1).
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. These are similar to the City of San José Standard Permit Conditions, see below.

Standard Permit Condition:

The following measures shall be implemented during all phases of construction to control dust and exhaust at the project site:

- Water active construction areas at least twice daily or as often as needed to control dust emissions.
- Cover trucks hauling soil, sand, and other loose materials and/or ensure that all trucks hauling such materials maintain at least two feet of freeboard.
- Remove visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Pave new or improved roadways, driveways, and sidewalks as soon as possible.
- Lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as quickly as possible.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Minimize idling times either by shutting off equipment 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). Provide clear signage for construction workers at all access points.
- Maintain and property tune construction equipment in accordance with manufacturer's specifications. Check all equipment by a certified mechanic and record a determination of running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints.

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 (included as Standard Permit Conditions). MM AQ-1 would require the proposed Project ensure any off-road equipment operating on-site for more than two days and larger than 25 horsepower shall, at a minimum, meet U.S. Environmental Protection Agency (EPA) particulate matter emissions standards for Tier 4 engines or equivalent. Prior to the issuance of any demolition permits, the project applicant will submit a construction operations plan to the Director of Planning, Building and Code Enforcement, or Director's designee, which includes specifications of the equipment to be used during construction as confirmation this requirement is met. The modeling results in *Table 7* demonstrate that the necessary reductions can be achieved with the use of CARB certified Tier 4 Final equipment.

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 end of 2022 and lasting approximately 13 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 which provides specifications on painting practices and regulates the ROG content of paint. Additionally, the Project would be required to utilize low VOC paint (less than 50 g/L) per MM AQ-1.

Summary. As shown in *Table 7*, all criteria pollutant emissions would remain below their respective thresholds. The Project is required to comply with City of San José Environmental Standard Conditions which would require the use of newer construction equipment with better emissions controls. 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.

Although the Project would result in construction emissions below BAAQMD thresholds, the City's Standard Permit Conditions would be implemented during construction including dust control procedures, and MM AQ-1 would further reduce emissions. The Project, therefore, would not result in a significant air quality impact due to construction dust emissions.

Operational Emissions

Operational emissions for mixed-use 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: Maximum Daily Project Operational Emissions* shows that the Project's maximum emissions would not exceed BAAQMD operational thresholds.

Table 8: Maximum Daily Project Operational Emissions

Emissions Source	Pollutant (maximum pounds per day)					
			Exhaust		Fugitive Dust	
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_X)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)	Coarse Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Area	31.52	0.002	0.001	0.001	-	-
Energy	0.44	3.95	0.30	0.30	-	-
Mobile	9.53	28.86	0.24	0.22	29.20	7.78
Total Project Emissions	**41.48**	**32.82**	**0.48**	**0.46**	**29.20**	**7.78**
BAAQMD Significance Threshold[1]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
BAAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, 2017. BAAQMD thresholds are for exhaust only and fugitive dust emissions are provided for informational purposes only.

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

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 7,528 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 *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. The BAAQMD developed the construction 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 thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

Project-related construction emissions would not be cumulatively considerable because they do not exceed BAAQMD project level thresholds. Since BAAQMD thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that an individual project that exceeds these thresholds would result in a cumulative short term impact. Project level cumulative construction emissions would not exceed threshold because the project would utilize Tier 4 construction equipment (MM AQ-1). Furthermore, the BAAQMD recommends Basic Construction

Mitigation Measures for all projects whether construction-related emissions exceed the thresholds of significance. Other projects would comply with the recommended measures through individual CEQA review and through compliance with BAAQMD Regulations. 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:

MM AQ-1 Additional Construction Mitigation Measures

Prior to issuance of any demolition, grading permits, and/or building permits (whichever occurs earliest), the project applicant shall prepare and submit a construction operations plan that includes specifications of the equipment to be used during construction to the Director of Planning, Building and Code Enforcement or the Director's Designee. The plan shall be accompanied by a letter signed by an air quality specialist, verifying that the equipment included in the plan meets the standards set forth below.

- For all construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total, equipment shall meet U.S. EPA Tier 4 emission standards.
- If Tier 4 equipment is not available, all construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment.
- Ensure that diesel engines, whether for off-road equipment or on-road vehicles, are not left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). Post legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling time limit.
- Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.
- Utilize low-VOC paint (50 g/L or less).

The project applicant shall submit a construction operations plan prepared by the construction contractor that outlines how the contractor will achieve the measures outlined in this mitigation measure. The plan shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee for review and approval prior to the issuance of any demolition, grading and/or building permits (whichever occurs earliest). The plan shall include, but not be limited to the following:

- List of activities and estimated timing.
- Equipment that would be used for each activity.
- Manufacturer's specifications for each equipment that provides the emissions level; or the manufacturer's specifications for devices that would be added to each piece of equipment to ensure the emissions level meet the thresholds in the mitigation measure.
- How the construction contractor will ensure that the measures listed are monitored.
- How the construction contractor will remedy any exceedance of the thresholds.
- How often and the method the construction contractor will use to report compliance with this mitigation measure.

Level of Significance with Mitigation: Less than significant impact with compliance with City Standard Permit Conditions, City GP Policy MS-13.1, and implementation of MM AQ-1.

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 adjoining the Project site.

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 adjoining the Project site (see *Figure 4*: *Sensitive Receptors*). 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 four sources exist within 1,000-feet of the project site and are further evaluated in the Health Risk Assessment (HRA) prepared by Kimley-Horn 2021.

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 adjoining 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, 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. Nonetheless, construction health risks have been evaluated for the Project using the U.S. EPA recommended screening model AERSCREEN. AERSCREEN is the recommended screening model based on the AERMOD dispersion model. The model produces estimates of worst-case concentrations without the need for hourly meteorological data. According to the EPA Support Center for Regulatory Atmospheric Modeling (SCRAM) website, AERSCREEN is intended to produce concentration estimates that are equal to or greater than the estimates produced by AERMOD with a fully developed set of meteorological and terrain data.[1] Maximum (worst case) $PM_{2.5}$ exhaust construction emissions over the entire construction period were used in AERSCREEN to approximate construction DPM emissions. Risk levels were calculated with the CARB Hotspots Analysis and Reporting Program (HARP) Risk Assessment Standalone Tool (RAST) and based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, Air Toxics Hot Spots Program Risk Assessment Guidelines (February 2015).

Results of this assessment are summarized in *Table 10: Construction Risk*. Results of this assessment indicate that the maximum concentration of $PM_{2.5}$ during construction would be 0.113 $\mu g/m^3$ which is below the BAAQMD 0.3 $\mu g/m^3$ significance threshold. The highest calculated carcinogenic risk from Project construction is 36.1 per million at the Maximally Exposed Individual (MEI), which is above the

[1] U.S. Environmental Protection Agency, *Air Quality Dispersion Modeling- Screening Models*. https://www.epa.gov/scram/air-quality-dispersion-modeling-screening-models

BAAQMD threshold of 10 in one million. The MEI during construction is the closest sensitive receptors to the Project site, which are residences adjacent to the site boundary. Non-cancer hazards for diesel PM would be below BAAQMD threshold, with a chronic hazard index computed at 0.022 and an acute hazard index of 0.45. Acute and chronic hazards would be below the BAAQMD significance threshold of 1.0.

Table 9: Construction Risk

Emissions Sources	Pollutant Concentration ($\mu g/m^3$)	Cancer Risk (per million	Chronic Hazard	Acute Hazard
Unmitigated				
Construction	0.113	36.1	0.022	0.45
BAAQMD Threshold	*0.3*	*10*	*1.0*	*1.0*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**
Mitigated				
Construction	0.019	6.2	0.004	0.08
BAAQMD Threshold	*0.3*	*10*	*1.0*	*1.0*
Threshold Exceeded?	**No**	**No**	**No**	**No**

1. Heavy-duty off-road construction equipment would also meet CARB Tier 4 Final emissions standards as required by MM AQ-1.
Refer to Appendix A: Modeling data.

It should be noted that the proposed Project would implement City Standard Permit Conditions and MM AQ-1 to ensure that construction emissions would not exceed BAAQMD thresholds. Additionally, General Plan GP Policy MS-13.1 requires construction equipment exhaust control measures as conditions of approval. In conformance with the Downtown Strategy 2040 EIR and GP Policy MS-13.1, the proposed Project would be required to use CARB certified Tier 4 Final equipment, such that emissions do not exceed BAAQMD construction period significance thresholds. Pursuant to these requirements, the Project would use construction equipment to meet CARB Tier 4 Final emissions standards. With implementation of Tier 4 equipment, the maximum concentration of $PM_{2.5}$ during construction would be reduced to 0.019 $\mu g/m^3$. Maximum cancer risk from project construction would decrease to 6.2 per million. Additionally, acute and chronic hazards would be lowered to 0.004 and 0.08 respectively. Therefore, construction risk levels would be less than BAAQMD thresholds and impacts associated with construction activities would be less than significant.

Operational Health Risk

The proposed Project would not include uses that would generate diesel truck traffic or other TACs at the Project site. Therefore, no operational health risks due to the Project were modeled and no impacts would occur. In addition, as discussed in the Project Health Risk Assessment (Kimley-Horn 2021), 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. Based on data from the BAAQMD, cumulative impacts related to residential cancer risk, $PM_{2.5}$, chronic hazard, and acute hazard would be less than cumulatively considerable and within acceptable limits.

Carbon Monoxide Hotspots

The Basin is designated as attainment for carbon monoxide (CO). emissions and ambient concentrations of CO have decreased dramatically in the Basin with the introduction of the catalytic converter in 1975.

No exceedance 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 is consistent with the applicable congestion management plan (CMP) and would not increase traffic volumes at local intersections to more than 24,000 vehicles per hour for locations in heavily urbanized areas, where "urban canyons" formed by buildings tend to reduce air circulation. Based of the scope of the proposed Project (1,245,399 square foot office tower), traffic would increase along surrounding roadways during long-term operational activities. However, according to the Traffic Memorandum for the proposed Project, the Project would generate a net of approximately 7,528 daily trips. Existing Woz Way has approximately 7,000 ADT while Almaden Boulevard has approximately 20,170 existing ADT. Therefore, the proposed Project would not increase traffic volumes at local intersections to more than 24,000 vehicles per hour. The proposed Project would not generate a significant number of vehicle trips on Almaden Boulevard and Woz Way and effects related to CO concentrations would be less than significant.

Parking Structure Hotspots

Carbon Monoxide concentrations are a function of vehicle idling time, meteorological conditions, and traffic flow. Therefore, parking structures (and particularly subterranean parking structures) tend to be of concern regarding CO hotspots, as they are enclosed spaces with frequent cars operating in cold start mode. The proposed Project would include approximately 1,251 parking spaces would be constructed within the development parking garage. The proposed Project would be required to comply with the ventilation requirements of the International Mechanical Code (Section 404 [Enclosed Parking Garages]), which requires that mechanical ventilation systems for enclosed parking garages operate automatically by means of carbon monoxide detectors in conjunction with nitrogen dioxide detectors. Section 404.2 requires a minimum air flow rate of 0.05 cubic feet per second per square foot and the system shall be capable of producing a ventilation airflow rate of 0.75 cubic per second per square foot of floor plan area. Impacts in regards to parking structure CO hotspots 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?

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 proposed Project does not include any uses identified by the BAAQMD as being associated with odors.

Construction activity associated with the proposed Project may generate detectable orders from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon Project completion. Any impacts to existing adjacent land uses would be short-term and are considered less than significant.

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 proposed Project includes office used and retail uses. None of these uses are anticipated to generate odors.

With respect to odor impacts from adjacent and nearby properties that could affect future employees and visitors on the Project site, 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. The Air Basin is designated as a nonattainment area for state standards of ozone, PM_{10}, and $PM_{2.5}$ and 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 Traveled analysis of the Transportation Impact Analysis.

As described in threshold AQ-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 AQ-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. The discussion in threshold AQ-3 analyzes the TACs and DPM and found the proposed Project would have a less than significant impact. Lastly, AQ-4 finds no odor impacts would occur due to the proposed Project. 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.
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3. Bay Area Air Quality Management District, *Clean Air Plan*, 2017.
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6. California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, 2018.
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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.
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12. City of San José, *Envision San José* 2040 *General Plan FEIR,* 2011.
13. City of San José*, San José Downtown Strategy 2040 EIR,* 2018.
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15. Federal Highway Administration*, Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents,* 2016.
16. Kimley-Horn & Associates, *296 Woz Way Development Local Transportation Analysis*, June 2020.
17. Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, 2015.
18. United States Environmental Protection Agency, *National Ambient Air Quality Standards Table*, 2016.
19. United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants*, 2018.
20. United States Environmental Protection Agency, *Policy Assessment for the Review of the Lead National Ambient Air Quality Standards*, 2013.

Appendix A

Air Quality Modeling Data

Woz Way - Office - Santa Clara County, Summer

Woz Way - Office

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,281.71	1000sqft	2.00	1,281,707.00	0
Enclosed Parking with Elevator	1,251.00	Space	1.00	544,379.00	0
Strip Mall	6.07	1000sqft	0.14	6,073.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	171	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per PG&E 2019 CRSR

Land Use - Project use

Construction Phase - Estimated construction schedule

Off-road Equipment - EstimateD equipment use

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Demolition - Buildings and Locust Street demolition

Grading - Estimated export

Architectural Coating - Mitigation requiring low VOC paint

Vehicle Trips - Adjusted trip generation and trip length

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - Per BAAQMD basic control measures/ Standard Permit Conditions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Energy reduction from 2016 Title 24 to 2019 Title 24

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	18.00	185.00
tblConstructionPhase	NumDays	230.00	410.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	8.00	150.00
tblConstructionPhase	NumDays	18.00	45.00
tblConstructionPhase	NumDays	5.00	20.00
tblGrading	MaterialExported	0.00	191,000.00
tblLandUse	LandUseSquareFeet	1,281,710.00	1,281,707.00
tblLandUse	LandUseSquareFeet	500,400.00	544,379.00
tblLandUse	LandUseSquareFeet	6,070.00	6,073.00
tblLandUse	LotAcreage	29.42	2.00
tblLandUse	LotAcreage	11.26	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171

tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	2.46	5.77
tblVehicleTrips	ST_TR	42.04	22.42
tblVehicleTrips	SU_TR	1.05	5.77
tblVehicleTrips	SU_TR	20.43	22.42
tblVehicleTrips	WD_TR	11.03	5.77
tblVehicleTrips	WD_TR	44.32	22.42

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					
2021	4.9215	66.5077	40.4147	0.1588	18.2141	2.0454	20.2595	9.9699	1.8817	11.8516	0.0000	16,296.0954	16,296.0954	1.5193	0.0000	16,334.0786
2022	37.7839	47.1904	43.2731	0.1688	8.3485	0.9868	9.3353	2.2604	0.9334	3.1938	0.0000	17,177.4747	17,177.4747	1.0970	0.0000	17,204.9004
2023	37.2662	38.7884	41.0641	0.1642	8.3486	0.8327	9.1813	2.2604	0.7874	3.0478	0.0000	16,714.3941	16,714.3941	1.0286	0.0000	16,740.1081
Maximum	**37.7839**	**66.5077**	**43.2731**	**0.1688**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8817**	**11.8516**	**0.0000**	**17,177.4747**	**17,177.4747**	**1.5193**	**0.0000**	**17,204.9004**

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					
2021	3.6073	43.3447	41.5218	0.1588	7.8635	0.2114	7.9265	4.2827	0.2059	4.3456	0.0000	16,296.0954	16,296.0954	1.5193	0.0000	16,334.0786
2022	36.6384	34.2684	44.5689	0.1688	7.9322	0.2796	8.2118	2.1582	0.2740	2.4323	0.0000	17,177.4747	17,177.4747	1.0970	0.0000	17,204.9004
2023	36.2319	27.0547	42.4614	0.1642	7.9323	0.2260	8.1583	2.1583	0.2219	2.3802	0.0000	16,714.3941	16,714.3941	1.0286	0.0000	16,740.1081
Maximum	**36.6384**	**43.3447**	**44.5689**	**0.1688**	**7.9323**	**0.2796**	**8.2118**	**4.2827**	**0.2740**	**4.3456**	**0.0000**	**17,177.4747**	**17,177.4747**	**1.5193**	**0.0000**	**17,204.9004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.37**	**31.36**	**-3.05**	**0.00**	**32.03**	**81.45**	**37.34**	**40.66**	**80.52**	**49.38**	**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	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Energy	0.6204	5.6395	4.7372	0.0338		0.4286	0.4286		0.4286	0.4286		6,767.4252	6,767.4252	0.1297	0.1241	6,807.6406
Mobile	11.5213	39.0289	148.1157	0.5591	53.2922	0.4010	53.6932	14.2245	0.3736	14.5981		56,426.2887	56,426.2887	1.6375		56,467.2261
Total	**43.6586**	**44.6707**	**153.1121**	**0.5930**	**53.2922**	**0.8305**	**54.1227**	**14.2245**	**0.8032**	**15.0276**		**63,194.2695**	**63,194.2695**	**1.7687**	**0.1241**	**63,275.4588**

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	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Energy	0.4349	3.9539	3.3212	0.0237		0.3005	0.3005		0.3005	0.3005		4,744.6338	4,744.6338	0.0909	0.0870	4,772.8288
Mobile	9.5296	28.8627	90.9024	0.3181	29.1554	0.2372	29.3926	7.7820	0.2209	8.0029		32,119.7422	32,119.7422	1.0174		32,145.1764
Total	**41.4815**	**32.8190**	**94.4828**	**0.3418**	**29.1554**	**0.5387**	**29.6940**	**7.7820**	**0.5223**	**8.3043**		**36,864.9316**	**36,864.9316**	**1.1098**	**0.0870**	**36,918.5972**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.99**	**26.53**	**38.29**	**42.36**	**45.29**	**35.14**	**45.14**	**45.29**	**34.97**	**44.74**	**0.00**	**41.66**	**41.66**	**37.25**	**29.89**	**41.65**

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	1/1/2021	2/11/2021	5	30	

2	Site Preparation	Site Preparation	2/12/2021	3/11/2021	5	20	
3	Grading	Grading	3/12/2021	10/7/2021	5	150	
4	Paving	Paving	10/8/2021	12/9/2021	5	45	
5	Building Construction	Building Construction	12/10/2021	7/6/2023	5	410	
6	Architectural Coating	Architectural Coating	11/15/2022	7/31/2023	5	185	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,931,670; Non-Residential Outdoor: 643,890; 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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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

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	333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	23,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	641.00	300.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	128.00	0.00	0.00	10.80	7.30	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 - 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					

Fugitive Dust					2.4003	0.0000	2.4003	0.3634	0.0000	0.3634			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**2.4003**	**1.5513**	**3.9516**	**0.3634**	**1.4411**	**1.8045**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0860	2.9110	0.6273	8.6900e-003	0.1940	9.2000e-003	0.2032	0.0532	8.8000e-003	0.0620		928.0389	928.0389	0.0410		929.0638
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	**0.1343**	**2.9397**	**1.0053**	**9.8600e-003**	**0.3172**	**9.9500e-003**	**0.3272**	**0.0859**	**9.4900e-003**	**0.0954**		**1,044.7406**	**1,044.7406**	**0.0436**		**1,045.8317**

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					1.0261	0.0000	1.0261	0.1554	0.0000	0.1554			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.0261**	**0.0616**	**1.0878**	**0.1554**	**0.0616**	**0.2170**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0860	2.9110	0.6273	8.6900e-003	0.1852	9.2000e-003	0.1944	0.0510	8.8000e-003	0.0598		928.0389	928.0389	0.0410		929.0638
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	**0.1343**	**2.9397**	**1.0053**	**9.8600e-003**	**0.3020**	**9.9500e-003**	**0.3120**	**0.0821**	**9.4900e-003**	**0.0916**		**1,044.7406**	**1,044.7406**	**0.0436**		**1,045.8317**

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0580	0.0343	0.4536	1.4100e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		140.0420	140.0420	3.1800e-003		140.1215
Total	**0.0580**	**0.0343**	**0.4536**	**1.4100e-003**	**0.1479**	**9.0000e-004**	**0.1488**	**0.0392**	**8.3000e-004**	**0.0401**		**140.0420**	**140.0420**	**3.1800e-003**		**140.1215**

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	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.7233**	**0.0621**	**7.7854**	**4.2454**	**0.0621**	**4.3075**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0580	0.0343	0.4536	1.4100e-003	0.1402	9.0000e-004	0.1411	0.0373	8.3000e-004	0.0382		140.0420	140.0420	3.1800e-003		140.1215
Total	**0.0580**	**0.0343**	**0.4536**	**1.4100e-003**	**0.1402**	**9.0000e-004**	**0.1411**	**0.0373**	**8.3000e-004**	**0.0382**		**140.0420**	**140.0420**	**3.1800e-003**		**140.1215**

3.4 Grading - 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					
Fugitive Dust					6.6963	0.0000	6.6963	3.3893	0.0000	3.3893			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.6963**	**1.1599**	**7.8563**	**3.3893**	**1.0671**	**4.4564**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2338	41.7424	8.9944	0.1246	2.7821	0.1320	2.9140	0.7625	0.1262	0.8888		13,307.4653	13,307.4653	0.5878		13,322.1612
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	**1.2821**	**41.7710**	**9.3724**	**0.1258**	**2.9053**	**0.1327**	**3.0380**	**0.7952**	**0.1269**	**0.9221**		**13,424.1669**	**13,424.1669**	**0.5905**		**13,438.9291**

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					2.8627	0.0000	2.8627	1.4489	0.0000	1.4489			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		0.0484	0.0484		0.0484	0.0484	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.3632**	**1.5737**	**17.7527**	**0.0296**	**2.8627**	**0.0484**	**2.9111**	**1.4489**	**0.0484**	**1.4973**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2338	41.7424	8.9944	0.1246	2.6558	0.1320	2.7878	0.7315	0.1262	0.8578		13,307.4653	13,307.4653	0.5878		13,322.1612
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	**1.2821**	**41.7710**	**9.3724**	**0.1258**	**2.7726**	**0.1327**	**2.9053**	**0.7626**	**0.1269**	**0.8896**		**13,424.1669**	**13,424.1669**	**0.5905**		**13,438.9291**

3.5 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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0940**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0644	0.0382	0.5040	1.5600e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		155.6022	155.6022	3.5400e-003		155.6906
Total	**0.0644**	**0.0382**	**0.5040**	**1.5600e-003**	**0.1643**	**1.0000e-003**	**0.1653**	**0.0436**	**9.2000e-004**	**0.0445**		**155.6022**	**155.6022**	**3.5400e-003**		**155.6906**

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	0.2635	1.2271	13.7636	0.0189		0.0400	0.0400		0.0400	0.0400	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2635**	**1.2271**	**13.7636**	**0.0189**		**0.0400**	**0.0400**		**0.0400**	**0.0400**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0644	0.0382	0.5040	1.5600e-003	0.1557	1.0000e-003	0.1567	0.0415	9.2000e-004	0.0424		155.6022	155.6022	3.5400e-003		155.6906
Total	**0.0644**	**0.0382**	**0.5040**	**1.5600e-003**	**0.1557**	**1.0000e-003**	**0.1567**	**0.0415**	**9.2000e-004**	**0.0424**		**155.6022**	**155.6022**	**3.5400e-003**		**155.6906**

3.6 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	0.9565	30.4977	7.6864	0.0819	2.0312	0.0674	2.0986	0.5847	0.0645	0.6492		8,658.5779	8,658.5779	0.3609		8,667.5991
Worker	2.0642	1.2230	16.1532	0.0500	5.2657	0.0320	5.2977	1.3967	0.0295	1.4262		4,987.0497	4,987.0497	0.1133		4,989.8824
Total	**3.0206**	**31.7207**	**23.8395**	**0.1319**	**7.2968**	**0.0994**	**7.3963**	**1.9814**	**0.0940**	**2.0754**		**13,645.6276**	**13,645.6276**	**0.4742**		**13,657.4814**

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	0.5867	2.7396	17.6822	0.0269		0.1120	0.1120		0.1120	0.1120	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.5867**	**2.7396**	**17.6822**	**0.0269**		**0.1120**	**0.1120**		**0.1120**	**0.1120**	**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	0.9565	30.4977	7.6864	0.0819	1.9443	0.0674	2.0117	0.5634	0.0645	0.6279		8,658.5779	8,658.5779	0.3609		8,667.5991
Worker	2.0642	1.2230	16.1532	0.0500	4.9911	0.0320	5.0231	1.3293	0.0295	1.3588		4,987.0497	4,987.0497	0.1133		4,989.8824
Total	**3.0206**	**31.7207**	**23.8395**	**0.1319**	**6.9354**	**0.0994**	**7.0348**	**1.8927**	**0.0940**	**1.9867**		**13,645.6276**	**13,645.6276**	**0.4742**		**13,657.4814**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.8923	28.8496	7.2390	0.0811	2.0313	0.0586	2.0899	0.5848	0.0560	0.6408		8,576.3402	8,576.3402	0.3447		8,584.9573

Worker	1.9235	1.0975	14.8849	0.0482	5.2657	0.0313	5.2970	1.3967	0.0288	1.4255		4,805.7102	4,805.7102	0.1018		4,808.2542
Total	**2.8158**	**29.9471**	**22.1238**	**0.1293**	**7.2970**	**0.0899**	**7.3868**	**1.9815**	**0.0848**	**2.0663**		**13,382.0504**	**13,382.0504**	**0.4464**		**13,393.2115**

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	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5608**	**2.6936**	**17.6592**	**0.0269**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.8923	28.8496	7.2390	0.0811	1.9444	0.0586	2.0030	0.5635	0.0560	0.6195		8,576.3402	8,576.3402	0.3447		8,584.9573
Worker	1.9235	1.0975	14.8849	0.0482	4.9911	0.0313	5.0224	1.3293	0.0288	1.3581		4,805.7102	4,805.7102	0.1018		4,808.2542
Total	**2.8158**	**29.9471**	**22.1238**	**0.1293**	**6.9355**	**0.0899**	**7.0254**	**1.8928**	**0.0848**	**1.9776**		**13,382.0504**	**13,382.0504**	**0.4464**		**13,393.2115**

3.6 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.6717	21.9158	6.5377	0.0787	2.0314	0.0254	2.0568	0.5848	0.0242	0.6091		8,331.6039	8,331.6039	0.2943		8,338.9610
Worker	1.7978	0.9875	13.7297	0.0464	5.2657	0.0307	5.2963	1.3967	0.0282	1.4249		4,622.9788	4,622.9788	0.0914		4,625.2626
Total	**2.4695**	**22.9033**	**20.2673**	**0.1250**	**7.2971**	**0.0560**	**7.3531**	**1.9815**	**0.0525**	**2.0340**		**12,954.5828**	**12,954.5828**	**0.3856**		**12,964.2236**

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	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5385**	**2.6513**	**17.6413**	**0.0269**		**0.0930**	**0.0930**		**0.0930**	**0.0930**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.6717	21.9158	6.5377	0.0787	1.9446	0.0254	1.9699	0.5635	0.0242	0.5878		8,331.6039	8,331.6039	0.2943		8,338.9610
Worker	1.7978	0.9875	13.7297	0.0464	4.9911	0.0307	5.0218	1.3293	0.0282	1.3575		4,622.9788	4,622.9788	0.0914		4,625.2626
Total	**2.4695**	**22.9033**	**20.2673**	**0.1250**	**6.9357**	**0.0560**	**6.9917**	**1.8928**	**0.0525**	**1.9453**		**12,954.5828**	**12,954.5828**	**0.3856**		**12,964.2236**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Total	**32.8778**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3841	0.2192	2.9723	9.6300e-003	1.0515	6.2500e-003	1.0577	0.2789	5.7500e-003	0.2847		959.6426	959.6426	0.0203		960.1506
Total	**0.3841**	**0.2192**	**2.9723**	**9.6300e-003**	**1.0515**	**6.2500e-003**	**1.0577**	**0.2789**	**5.7500e-003**	**0.2847**		**959.6426**	**959.6426**	**0.0203**		**960.1506**

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	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**32.8778**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3841	0.2192	2.9723	9.6300e-003	0.9967	6.2500e-003	1.0029	0.2655	5.7500e-003	0.2712		959.6426	959.6426	0.0203		960.1506
Total	**0.3841**	**0.2192**	**2.9723**	**9.6300e-003**	**0.9967**	**6.2500e-003**	**1.0029**	**0.2655**	**5.7500e-003**	**0.2712**		**959.6426**	**959.6426**	**0.0203**		**960.1506**

3.7 Architectural Coating - 2023

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	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**32.8649**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3590	0.1972	2.7417	9.2600e-003	1.0515	6.1200e-003	1.0576	0.2789	5.6400e-003	0.2845		923.1533	923.1533	0.0182		923.6094
Total	**0.3590**	**0.1972**	**2.7417**	**9.2600e-003**	**1.0515**	**6.1200e-003**	**1.0576**	**0.2789**	**5.6400e-003**	**0.2845**		**923.1533**	**923.1533**	**0.0182**		**923.6094**

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	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**32.8649**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3590	0.1972	2.7417	9.2600e-003	0.9967	6.1200e-003	1.0028	0.2655	5.6400e-003	0.2711		923.1533	923.1533	0.0182		923.6094

Total	**0.3590**	**0.1972**	**2.7417**	**9.2600e-003**	**0.9967**	**6.1200e-003**	**1.0028**	**0.2655**	**5.6400e-003**	**0.2711**		**923.1533**	**923.1533**	**0.0182**		**923.6094**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Pedestrian Network

Transit Subsidy

Implement Employee Parking CashOut

Encourage Telecommuting and Alternative Work Schedules

Market Commute Trip Reduction Option

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive 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	9.5296	28.8627	90.9024	0.3181	29.1554	0.2372	29.3926	7.7820	0.2209	8.0029		32,119.7422	32,119.7422	1.0174		32,145.1764
Unmitigated	11.5213	39.0289	148.1157	0.5591	53.2922	0.4010	53.6932	14.2245	0.3736	14.5981		56,426.2887	56,426.2887	1.6375		56,467.2261

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	7,395.47	7,395.47	7395.47	24,739,019	13,534,346
Strip Mall	136.09	136.09	136.09	455,241	249,055

Total	7,531.56	7,531.56	7,531.56	25,194,260	13,783,402

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
Enclosed Parking with Elevator	9.19	9.19	9.19	0.00	0.00	0.00	0	0	0
General Office Building	9.19	9.19	9.19	33.00	48.00	19.00	100	0	0
Strip Mall	9.19	9.19	9.19	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
General Office Building	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
Strip Mall	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.4349	3.9539	3.3212	0.0237		0.3005	0.3005		0.3005	0.3005		4,744.6338	4,744.6338	0.0909	0.0870	4,772.8288
NaturalGas Unmitigated	0.6204	5.6395	4.7372	0.0338		0.4286	0.4286		0.4286	0.4286		6,767.4252	6,767.4252	0.1297	0.1241	6,807.6406

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					
Enclosed Parking with Elevator	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
General Office Building	57483.7	0.6199	5.6357	4.7340	0.0338		0.4283	0.4283		0.4283	0.4283		6,762.7860	6,762.7860	0.1296	0.1240	6,802.9739
Strip Mall	39.4329	4.3000e-004	3.8700e-003	3.2500e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.6392	4.6392	9.0000e-005	9.0000e-005	4.6667
Total		**0.6204**	**5.6395**	**4.7372**	**0.0338**		**0.4286**	**0.4286**		**0.4286**	**0.4286**		**6,767.4252**	**6,767.4252**	**0.1297**	**0.1241**	**6,807.6406**

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					
Enclosed Parking with Elevator	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
General Office Building	40.3018	0.4346	3.9512	3.3190	0.0237		0.3003	0.3003		0.3003	0.3003		4,741.3864	4,741.3864	0.0909	0.0869	4,769.5621
Strip Mall	0.027603	3.0000e-004	2.7100e-003	2.2700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.2474	3.2474	6.0000e-005	6.0000e-005	3.2667
Total		**0.4349**	**3.9539**	**3.3212**	**0.0237**		**0.3005**	**0.3005**		**0.3005**	**0.3005**		**4,744.6338**	**4,744.6338**	**0.0909**	**0.0870**	**4,772.8288**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Unmitigated	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921

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	3.7417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	27.7513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0240	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Total	**31.5170**	**2.3600e-003**	**0.2592**	**2.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**		**0.5556**	**0.5556**	**1.4600e-003**		**0.5921**

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	3.7417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	27.7513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0240	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Total	**31.5170**	**2.3600e-003**	**0.2592**	**2.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**		**0.5556**	**0.5556**	**1.4600e-003**		**0.5921**

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

Woz Way - Office - Santa Clara County, Winter

Woz Way - Office

Santa Clara County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,281.71	1000sqft	2.00	1,281,707.00	0
Enclosed Parking with Elevator	1,251.00	Space	1.00	544,379.00	0
Strip Mall	6.07	1000sqft	0.14	6,073.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	171	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per PG&E 2019 CRSR

Land Use - Project use

Construction Phase - Estimated construction schedule

Off-road Equipment - EstimateD equipment use

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Demolition - Buildings and Locust Street demolition

Grading - Estimated export

Architectural Coating - Mitigation requiring low VOC paint

Vehicle Trips - Adjusted trip generation and trip length

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - Per BAAQMD basic control measures/ Standard Permit Conditions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Energy reduction from 2016 Title 24 to 2019 Title 24

Water Mitigation -

Waste Mitigation - Per AB 939

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	150.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	18.00	185.00
tblConstructionPhase	NumDays	230.00	410.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	8.00	150.00
tblConstructionPhase	NumDays	18.00	45.00
tblConstructionPhase	NumDays	5.00	20.00
tblGrading	MaterialExported	0.00	191,000.00
tblLandUse	LandUseSquareFeet	1,281,710.00	1,281,707.00
tblLandUse	LandUseSquareFeet	500,400.00	544,379.00
tblLandUse	LandUseSquareFeet	6,070.00	6,073.00
tblLandUse	LotAcreage	29.42	2.00
tblLandUse	LotAcreage	11.26	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171

tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	2.46	5.77
tblVehicleTrips	ST_TR	42.04	22.42
tblVehicleTrips	SU_TR	1.05	5.77
tblVehicleTrips	SU_TR	20.43	22.42
tblVehicleTrips	WD_TR	11.03	5.77
tblVehicleTrips	WD_TR	44.32	22.42

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					
2021	5.1137	67.4824	40.2886	0.1532	18.2141	2.0454	20.2595	9.9699	1.8817	11.8516	0.0000	16,059.4437	16,059.4437	1.5460	0.0000	16,098.0931
2022	37.9956	47.7077	42.8859	0.1620	8.3485	0.9888	9.3373	2.2604	0.9353	3.1957	0.0000	16,489.2900	16,489.2900	1.1145	0.0000	16,517.1517
2023	37.4647	39.1610	40.5262	0.1577	8.3486	0.8337	9.1823	2.2604	0.7883	3.0487	0.0000	16,052.6563	16,052.6563	1.0406	0.0000	16,078.6702
Maximum	**37.9956**	**67.4824**	**42.8859**	**0.1620**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8817**	**11.8516**	**0.0000**	**16,489.2900**	**16,489.2900**	**1.5460**	**0.0000**	**16,517.1517**

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					
2021	3.7995	44.3194	41.3956	0.1532	7.8635	0.2136	7.9265	4.2827	0.2080	4.3456	0.0000	16,059.4437	16,059.4437	1.5460	0.0000	16,098.0931
2022	36.8501	34.7856	44.1817	0.1620	7.9322	0.2816	8.2138	2.1582	0.2760	2.4342	0.0000	16,489.2900	16,489.2900	1.1145	0.0000	16,517.1517
2023	36.4304	27.4274	41.9236	0.1577	7.9323	0.2270	8.1593	2.1583	0.2229	2.3812	0.0000	16,052.6563	16,052.6563	1.0406	0.0000	16,078.6701
Maximum	**36.8501**	**44.3194**	**44.1817**	**0.1620**	**7.9323**	**0.2816**	**8.2138**	**4.2827**	**0.2760**	**4.3456**	**0.0000**	**16,489.2900**	**16,489.2900**	**1.5460**	**0.0000**	**16,517.1517**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.34**	**30.98**	**-3.07**	**0.00**	**32.03**	**81.33**	**37.34**	**40.66**	**80.39**	**49.38**	**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	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Energy	0.6204	5.6395	4.7372	0.0338		0.4286	0.4286		0.4286	0.4286		6,767.4252	6,767.4252	0.1297	0.1241	6,807.6406
Mobile	10.0647	41.6970	141.8044	0.5213	53.2922	0.4021	53.6943	14.2245	0.3747	14.5992		52,636.1218	52,636.1218	1.6247		52,676.7392
Total	**42.2020**	**47.3389**	**146.8008**	**0.5552**	**53.2922**	**0.8317**	**54.1238**	**14.2245**	**0.8042**	**15.0287**		**59,404.1026**	**59,404.1026**	**1.7559**	**0.1241**	**59,484.9718**

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	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Energy	0.4349	3.9539	3.3212	0.0237		0.3005	0.3005		0.3005	0.3005		4,744.6338	4,744.6338	0.0909	0.0870	4,772.8288
Mobile	8.1189	30.3075	91.7123	0.2965	29.1554	0.2384	29.3937	7.7820	0.2220	8.0039		29,943.2646	29,943.2646	1.0366		29,969.1807
Total	**40.0708**	**34.2638**	**95.2927**	**0.3202**	**29.1554**	**0.5398**	**29.6951**	**7.7820**	**0.5234**	**8.3054**		**34,688.4540**	**34,688.4540**	**1.1290**	**0.0870**	**34,742.6015**

	ROG	NOx	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	**5.05**	**27.62**	**35.09**	**42.32**	**45.29**	**35.10**	**45.13**	**45.29**	**34.92**	**44.74**	**0.00**	**41.61**	**41.61**	**35.70**	**29.89**	**41.59**

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	1/1/2021	2/11/2021	5	30	

2	Site Preparation	Site Preparation	2/12/2021	3/11/2021	5	20	
3	Grading	Grading	3/12/2021	10/7/2021	5	150	
4	Paving	Paving	10/8/2021	12/9/2021	5	45	
5	Building Construction	Building Construction	12/10/2021	7/6/2023	5	410	
6	Architectural Coating	Architectural Coating	11/15/2022	7/31/2023	5	185	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,931,670; Non-Residential Outdoor: 643,890; 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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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

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	333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	23,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	641.00	300.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	128.00	0.00	0.00	10.80	7.30	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 - 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					

Fugitive Dust					2.4003	0.0000	2.4003	0.3634	0.0000	0.3634			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**2.4003**	**1.5513**	**3.9516**	**0.3634**	**1.4411**	**1.8045**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0884	2.9786	0.6734	8.5400e-003	0.1940	9.3600e-003	0.2034	0.0532	8.9500e-003	0.0621		912.1968	912.1968	0.0429		913.2685
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	**0.1399**	**3.0135**	**1.0224**	**9.6200e-003**	**0.3172**	**0.0101**	**0.3273**	**0.0859**	**9.6400e-003**	**0.0955**		**1,019.4121**	**1,019.4121**	**0.0453**		**1,020.5452**

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					1.0261	0.0000	1.0261	0.1554	0.0000	0.1554			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.0261**	**0.0616**	**1.0878**	**0.1554**	**0.0616**	**0.2170**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0884	2.9786	0.6734	8.5400e-003	0.1852	9.3600e-003	0.1946	0.0510	8.9500e-003	0.0600		912.1968	912.1968	0.0429		913.2685
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	**0.1399**	**3.0135**	**1.0224**	**9.6200e-003**	**0.3020**	**0.0101**	**0.3121**	**0.0821**	**9.6400e-003**	**0.0918**		**1,019.4121**	**1,019.4121**	**0.0453**		**1,020.5452**

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0618	0.0419	0.4188	1.2900e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		128.6583	128.6583	2.9500e-003		128.7321
Total	**0.0618**	**0.0419**	**0.4188**	**1.2900e-003**	**0.1479**	**9.0000e-004**	**0.1488**	**0.0392**	**8.3000e-004**	**0.0401**		**128.6583**	**128.6583**	**2.9500e-003**		**128.7321**

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	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.7233**	**0.0621**	**7.7854**	**4.2454**	**0.0621**	**4.3075**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0618	0.0419	0.4188	1.2900e-003	0.1402	9.0000e-004	0.1411	0.0373	8.3000e-004	0.0382		128.6583	128.6583	2.9500e-003		128.7321
Total	**0.0618**	**0.0419**	**0.4188**	**1.2900e-003**	**0.1402**	**9.0000e-004**	**0.1411**	**0.0373**	**8.3000e-004**	**0.0382**		**128.6583**	**128.6583**	**2.9500e-003**		**128.7321**

3.4 Grading - 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					
Fugitive Dust					6.6963	0.0000	6.6963	3.3893	0.0000	3.3893			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.6963**	**1.1599**	**7.8563**	**3.3893**	**1.0671**	**4.4564**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2678	42.7108	9.6567	0.1225	2.7821	0.1342	2.9162	0.7625	0.1284	0.8909		13,080.3000	13,080.3000	0.6147		13,095.6668
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	**1.3193**	**42.7457**	**10.0056**	**0.1236**	**2.9053**	**0.1349**	**3.0402**	**0.7952**	**0.1290**	**0.9242**		**13,187.5152**	**13,187.5152**	**0.6171**		**13,202.9436**

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					2.8627	0.0000	2.8627	1.4489	0.0000	1.4489			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		0.0484	0.0484		0.0484	0.0484	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.3632**	**1.5737**	**17.7527**	**0.0296**	**2.8627**	**0.0484**	**2.9111**	**1.4489**	**0.0484**	**1.4973**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2678	42.7108	9.6567	0.1225	2.6558	0.1342	2.7900	0.7315	0.1284	0.8599		13,080.3000	13,080.3000	0.6147		13,095.6668
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	**1.3193**	**42.7457**	**10.0056**	**0.1236**	**2.7726**	**0.1349**	**2.9075**	**0.7626**	**0.1290**	**0.8917**		**13,187.5152**	**13,187.5152**	**0.6171**		**13,202.9436**

3.5 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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0940**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0686	0.0466	0.4653	1.4300e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		142.9536	142.9536	3.2800e-003		143.0357
Total	**0.0686**	**0.0466**	**0.4653**	**1.4300e-003**	**0.1643**	**1.0000e-003**	**0.1653**	**0.0436**	**9.2000e-004**	**0.0445**		**142.9536**	**142.9536**	**3.2800e-003**		**143.0357**

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	0.2635	1.2271	13.7636	0.0189		0.0400	0.0400		0.0400	0.0400	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2635**	**1.2271**	**13.7636**	**0.0189**		**0.0400**	**0.0400**		**0.0400**	**0.0400**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0686	0.0466	0.4653	1.4300e-003	0.1557	1.0000e-003	0.1567	0.0415	9.2000e-004	0.0424		142.9536	142.9536	3.2800e-003		143.0357
Total	**0.0686**	**0.0466**	**0.4653**	**1.4300e-003**	**0.1557**	**1.0000e-003**	**0.1567**	**0.0415**	**9.2000e-004**	**0.0424**		**142.9536**	**142.9536**	**3.2800e-003**		**143.0357**

3.6 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	1.0134	30.7696	8.8009	0.0798	2.0312	0.0696	2.1008	0.5847	0.0666	0.6513		8,438.1140	8,438.1140	0.3889		8,447.8361
Worker	2.1994	1.4935	14.9125	0.0460	5.2657	0.0320	5.2977	1.3967	0.0295	1.4262		4,581.6637	4,581.6637	0.1052		4,584.2933
Total	**3.2128**	**32.2631**	**23.7134**	**0.1258**	**7.2968**	**0.1016**	**7.3984**	**1.9814**	**0.0960**	**2.0775**		**13,019.7777**	**13,019.7777**	**0.4941**		**13,032.1294**

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	0.5867	2.7396	17.6822	0.0269		0.1120	0.1120		0.1120	0.1120	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.5867**	**2.7396**	**17.6822**	**0.0269**		**0.1120**	**0.1120**		**0.1120**	**0.1120**	**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	1.0134	30.7696	8.8009	0.0798	1.9443	0.0696	2.0139	0.5634	0.0666	0.6300		8,438.1140	8,438.1140	0.3889		8,447.8361
Worker	2.1994	1.4935	14.9125	0.0460	4.9911	0.0320	5.0231	1.3293	0.0295	1.3588		4,581.6637	4,581.6637	0.1052		4,584.2933
Total	**3.2128**	**32.2631**	**23.7134**	**0.1258**	**6.9354**	**0.1016**	**7.0370**	**1.8927**	**0.0960**	**1.9888**		**13,019.7777**	**13,019.7777**	**0.4941**		**13,032.1294**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.9455	29.0762	8.2894	0.0790	2.0313	0.0606	2.0919	0.5848	0.0579	0.6427		8,356.5597	8,356.5597	0.3712		8,365.8397

Worker	2.0556	1.3398	13.6864	0.0443	5.2657	0.0313	5.2970	1.3967	0.0288	1.4255		4,415.2719	4,415.2719	0.0942		4,417.6267
Total	**3.0011**	**30.4160**	**21.9759**	**0.1233**	**7.2970**	**0.0919**	**7.3888**	**1.9815**	**0.0867**	**2.0682**		**12,771.8316**	**12,771.8316**	**0.4654**		**12,783.4664**

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	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5608**	**2.6936**	**17.6592**	**0.0269**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.9455	29.0762	8.2894	0.0790	1.9444	0.0606	2.0050	0.5635	0.0579	0.6214		8,356.5597	8,356.5597	0.3712		8,365.8397
Worker	2.0556	1.3398	13.6864	0.0443	4.9911	0.0313	5.0224	1.3293	0.0288	1.3581		4,415.2719	4,415.2719	0.0942		4,417.6267
Total	**3.0011**	**30.4160**	**21.9759**	**0.1233**	**6.9355**	**0.0919**	**7.0274**	**1.8928**	**0.0867**	**1.9795**		**12,771.8316**	**12,771.8316**	**0.4654**		**12,783.4664**

3.6 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.7140	22.0277	7.3877	0.0767	2.0314	0.0264	2.0578	0.5848	0.0252	0.6100		8,120.2198	8,120.2198	0.3148		8,128.0888
Worker	1.9280	1.2049	12.5728	0.0426	5.2657	0.0307	5.2963	1.3967	0.0282	1.4249		4,247.5866	4,247.5866	0.0843		4,249.6935
Total	**2.6420**	**23.2325**	**19.9605**	**0.1193**	**7.2971**	**0.0571**	**7.3541**	**1.9815**	**0.0534**	**2.0350**		**12,367.8063**	**12,367.8063**	**0.3990**		**12,377.7823**

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	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5385**	**2.6513**	**17.6413**	**0.0269**		**0.0930**	**0.0930**		**0.0930**	**0.0930**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.7140	22.0277	7.3877	0.0767	1.9446	0.0264	1.9709	0.5635	0.0252	0.5887		8,120.2198	8,120.2198	0.3148		8,128.0888
Worker	1.9280	1.2049	12.5728	0.0426	4.9911	0.0307	5.0218	1.3293	0.0282	1.3575		4,247.5866	4,247.5866	0.0843		4,249.6935
Total	**2.6420**	**23.2325**	**19.9605**	**0.1193**	**6.9357**	**0.0571**	**6.9927**	**1.8928**	**0.0534**	**1.9463**		**12,367.8063**	**12,367.8063**	**0.3990**		**12,377.7823**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Total	**32.8778**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.4105	0.2675	2.7330	8.8400e-003	1.0515	6.2500e-003	1.0577	0.2789	5.7500e-003	0.2847		881.6768	881.6768	0.0188		882.1470
Total	**0.4105**	**0.2675**	**2.7330**	**8.8400e-003**	**1.0515**	**6.2500e-003**	**1.0577**	**0.2789**	**5.7500e-003**	**0.2847**		**881.6768**	**881.6768**	**0.0188**		**882.1470**

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	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**32.8778**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.4105	0.2675	2.7330	8.8400e-003	0.9967	6.2500e-003	1.0029	0.2655	5.7500e-003	0.2712		881.6768	881.6768	0.0188		882.1470
Total	**0.4105**	**0.2675**	**2.7330**	**8.8400e-003**	**0.9967**	**6.2500e-003**	**1.0029**	**0.2655**	**5.7500e-003**	**0.2712**		**881.6768**	**881.6768**	**0.0188**		**882.1470**

3.7 Architectural Coating - 2023

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	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**32.8649**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3850	0.2406	2.5106	8.5100e-003	1.0515	6.1200e-003	1.0576	0.2789	5.6400e-003	0.2845		848.1920	848.1920	0.0168		848.6127
Total	**0.3850**	**0.2406**	**2.5106**	**8.5100e-003**	**1.0515**	**6.1200e-003**	**1.0576**	**0.2789**	**5.6400e-003**	**0.2845**		**848.1920**	**848.1920**	**0.0168**		**848.6127**

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	32.6733					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**32.8649**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3850	0.2406	2.5106	8.5100e-003	0.9967	6.1200e-003	1.0028	0.2655	5.6400e-003	0.2711		848.1920	848.1920	0.0168		848.6127

Total	**0.3850**	**0.2406**	**2.5106**	**8.5100e-003**	**0.9967**	**6.1200e-003**	**1.0028**	**0.2655**	**5.6400e-003**	**0.2711**		**848.1920**	**848.1920**	**0.0168**		**848.6127**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Pedestrian Network

Transit Subsidy

Implement Employee Parking CashOut

Encourage Telecommuting and Alternative Work Schedules

Market Commute Trip Reduction Option

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive 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	8.1189	30.3075	91.7123	0.2965	29.1554	0.2384	29.3937	7.7820	0.2220	8.0039		29,943.2646	29,943.2646	1.0366		29,969.1807
Unmitigated	10.0647	41.6970	141.8044	0.5213	53.2922	0.4021	53.6943	14.2245	0.3747	14.5992		52,636.1218	52,636.1218	1.6247		52,676.7392

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	7,395.47	7,395.47	7395.47	24,739,019	13,534,346
Strip Mall	136.09	136.09	136.09	455,241	249,055

Total	7,531.56	7,531.56	7,531.56	25,194,260	13,783,402

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
Enclosed Parking with Elevator	9.19	9.19	9.19	0.00	0.00	0.00	0	0	0
General Office Building	9.19	9.19	9.19	33.00	48.00	19.00	100	0	0
Strip Mall	9.19	9.19	9.19	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
General Office Building	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720
Strip Mall	0.612822	0.036208	0.182365	0.105071	0.013933	0.005011	0.012748	0.021514	0.002168	0.001529	0.005280	0.000629	0.000720

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.4349	3.9539	3.3212	0.0237		0.3005	0.3005		0.3005	0.3005		4,744.6338	4,744.6338	0.0909	0.0870	4,772.8288
NaturalGas Unmitigated	0.6204	5.6395	4.7372	0.0338		0.4286	0.4286		0.4286	0.4286		6,767.4252	6,767.4252	0.1297	0.1241	6,807.6406

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					
Enclosed Parking with Elevator	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
General Office Building	57483.7	0.6199	5.6357	4.7340	0.0338		0.4283	0.4283		0.4283	0.4283		6,762.7860	6,762.7860	0.1296	0.1240	6,802.9739
Strip Mall	39.4329	4.3000e-004	3.8700e-003	3.2500e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		4.6392	4.6392	9.0000e-005	9.0000e-005	4.6667
Total		**0.6204**	**5.6395**	**4.7372**	**0.0338**		**0.4286**	**0.4286**		**0.4286**	**0.4286**		**6,767.4252**	**6,767.4252**	**0.1297**	**0.1241**	**6,807.6406**

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					
Enclosed Parking with Elevator	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
General Office Building	40.3018	0.4346	3.9512	3.3190	0.0237		0.3003	0.3003		0.3003	0.3003		4,741.3864	4,741.3864	0.0909	0.0869	4,769.5621
Strip Mall	0.027603	3.0000e-004	2.7100e-003	2.2700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.2474	3.2474	6.0000e-005	6.0000e-005	3.2667
Total		**0.4349**	**3.9539**	**3.3212**	**0.0237**		**0.3005**	**0.3005**		**0.3005**	**0.3005**		**4,744.6338**	**4,744.6338**	**0.0909**	**0.0870**	**4,772.8288**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Unmitigated	31.5170	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921

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	3.7417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	27.7513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0240	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Total	**31.5170**	**2.3600e-003**	**0.2592**	**2.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**		**0.5556**	**0.5556**	**1.4600e-003**		**0.5921**

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	3.7417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	27.7513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0240	2.3600e-003	0.2592	2.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.5556	0.5556	1.4600e-003		0.5921
Total	**31.5170**	**2.3600e-003**	**0.2592**	**2.0000e-005**		**9.2000e-004**	**9.2000e-004**		**9.2000e-004**	**9.2000e-004**		**0.5556**	**0.5556**	**1.4600e-003**		**0.5921**

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

Woz Way - Office - Santa Clara County, Summer

Woz Way - Office (Construction Unmitigated)

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,281.71	1000sqft	2.00	1,281,707.00	0
Enclosed Parking with Elevator	1,251.00	Space	1.00	544,379.00	0
Strip Mall	6.07	1000sqft	0.14	6,073.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	171	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per PG&E 2019 CRSR

Land Use - Project use

Construction Phase - Estimated construction schedule

Off-road Equipment - EstimateD equipment use

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Demolition - Buildings and Locust Street demolition

Grading - Estimated export

Architectural Coating -

Vehicle Trips - Adjusted trip generation and trip length

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - Per BAAQMD basic control measures/ Standard Permit Conditions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Energy reduction from 2016 Title 24 to 2019 Title 24

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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	8.00	150.00
tblConstructionPhase	NumDays	18.00	45.00
tblConstructionPhase	NumDays	230.00	410.00
tblConstructionPhase	NumDays	18.00	185.00
tblGrading	MaterialExported	0.00	191,000.00
tblLandUse	LandUseSquareFeet	1,281,710.00	1,281,707.00
tblLandUse	LandUseSquareFeet	500,400.00	544,379.00
tblLandUse	LandUseSquareFeet	6,070.00	6,073.00
tblLandUse	LotAcreage	29.42	2.00
tblLandUse	LotAcreage	11.26	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19

tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	2.46	5.77
tblVehicleTrips	ST_TR	42.04	22.42
tblVehicleTrips	SU_TR	1.05	5.77
tblVehicleTrips	SU_TR	20.43	22.42
tblVehicleTrips	WD_TR	11.03	5.77
tblVehicleTrips	WD_TR	44.32	22.42

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					

2021	4.9215	66.5077	40.4147	0.1588	18.2141	2.0454	20.2595	9.9699	1.8817	11.8516	0.0000	16,296.0954	16,296.0954	1.5193	0.0000	16,334.0786
2022	78.9324	47.1904	43.2731	0.1688	8.3485	0.9868	9.3353	2.2604	0.9334	3.1938	0.0000	17,177.4747	17,177.4747	1.0970	0.0000	17,204.9004
2023	78.4147	38.7884	41.0641	0.1642	8.3486	0.8327	9.1813	2.2604	0.7874	3.0478	0.0000	16,714.3941	16,714.3941	1.0286	0.0000	16,740.1081
Maximum	**78.9324**	**66.5077**	**43.2731**	**0.1688**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8817**	**11.8516**	**0.0000**	**17,177.4747**	**17,177.4747**	**1.5193**	**0.0000**	**17,204.9004**

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					
2021	3.6073	43.3447	41.5218	0.1588	7.8635	0.2114	7.9265	4.2827	0.2059	4.3456	0.0000	16,296.0954	16,296.0954	1.5193	0.0000	16,334.0786
2022	77.7869	34.2684	44.5689	0.1688	7.9322	0.2796	8.2118	2.1582	0.2740	2.4323	0.0000	17,177.4747	17,177.4747	1.0970	0.0000	17,204.9004
2023	77.3804	27.0547	42.4614	0.1642	7.9323	0.2260	8.1583	2.1583	0.2219	2.3802	0.0000	16,714.3941	16,714.3941	1.0286	0.0000	16,740.1081
Maximum	**77.7869**	**43.3447**	**44.5689**	**0.1688**	**7.9323**	**0.2796**	**8.2118**	**4.2827**	**0.2740**	**4.3456**	**0.0000**	**17,177.4747**	**17,177.4747**	**1.5193**	**0.0000**	**17,204.9004**

	ROG	NOx	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	**2.15**	**31.36**	**-3.05**	**0.00**	**32.03**	**81.45**	**37.34**	**40.66**	**80.52**	**49.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	2/11/2021	5	30	

2	Site Preparation	Site Preparation	2/12/2021	3/11/2021	5	20	
3	Grading	Grading	3/12/2021	10/7/2021	5	150	
4	Paving	Paving	10/8/2021	12/9/2021	5	45	
5	Building Construction	Building Construction	12/10/2021	7/6/2023	5	410	
6	Architectural Coating	Architectural Coating	11/15/2022	7/31/2023	5	185	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,931,670; Non-Residential Outdoor: 643,890; 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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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

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	333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	23,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	641.00	300.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	128.00	0.00	0.00	10.80	7.30	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 - 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					
Fugitive Dust					2.4003	0.0000	2.4003	0.3634	0.0000	0.3634			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**2.4003**	**1.5513**	**3.9516**	**0.3634**	**1.4411**	**1.8045**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0860	2.9110	0.6273	8.6900e-003	0.1940	9.2000e-003	0.2032	0.0532	8.8000e-003	0.0620		928.0389	928.0389	0.0410		929.0638
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	**0.1343**	**2.9397**	**1.0053**	**9.8600e-003**	**0.3172**	**9.9500e-003**	**0.3272**	**0.0859**	**9.4900e-003**	**0.0954**		**1,044.7406**	**1,044.7406**	**0.0436**		**1,045.8317**

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					1.0261	0.0000	1.0261	0.1554	0.0000	0.1554			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174

Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.0261**	**0.0616**	**1.0878**	**0.1554**	**0.0616**	**0.2170**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0860	2.9110	0.6273	8.6900e-003	0.1852	9.2000e-003	0.1944	0.0510	8.8000e-003	0.0598		928.0389	928.0389	0.0410		929.0638
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	**0.1343**	**2.9397**	**1.0053**	**9.8600e-003**	**0.3020**	**9.9500e-003**	**0.3120**	**0.0821**	**9.4900e-003**	**0.0916**		**1,044.7406**	**1,044.7406**	**0.0436**		**1,045.8317**

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0580	0.0343	0.4536	1.4100e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		140.0420	140.0420	3.1800e-003		140.1215
Total	**0.0580**	**0.0343**	**0.4536**	**1.4100e-003**	**0.1479**	**9.0000e-004**	**0.1488**	**0.0392**	**8.3000e-004**	**0.0401**		**140.0420**	**140.0420**	**3.1800e-003**		**140.1215**

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	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.7233**	**0.0621**	**7.7854**	**4.2454**	**0.0621**	**4.3075**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0580	0.0343	0.4536	1.4100e-003	0.1402	9.0000e-004	0.1411	0.0373	8.3000e-004	0.0382		140.0420	140.0420	3.1800e-003		140.1215
Total	**0.0580**	**0.0343**	**0.4536**	**1.4100e-003**	**0.1402**	**9.0000e-004**	**0.1411**	**0.0373**	**8.3000e-004**	**0.0382**		**140.0420**	**140.0420**	**3.1800e-003**		**140.1215**

3.4 Grading - 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				
Fugitive Dust					6.6963	0.0000	6.6963	3.3893	0.0000	3.3893			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.6963**	**1.1599**	**7.8563**	**3.3893**	**1.0671**	**4.4564**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2338	41.7424	8.9944	0.1246	2.7821	0.1320	2.9140	0.7625	0.1262	0.8888		13,307.4653	13,307.4653	0.5878		13,322.1612
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	**1.2821**	**41.7710**	**9.3724**	**0.1258**	**2.9053**	**0.1327**	**3.0380**	**0.7952**	**0.1269**	**0.9221**		**13,424.16 69**	**13,424.166 9**	**0.5905**		**13,438.92 91**

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					2.8627	0.0000	2.8627	1.4489	0.0000	1.4489			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		0.0484	0.0484		0.0484	0.0484	0.0000	2,871.928 5	2,871.9285	0.9288		2,895.149 5
Total	**0.3632**	**1.5737**	**17.7527**	**0.0296**	**2.8627**	**0.0484**	**2.9111**	**1.4489**	**0.0484**	**1.4973**	**0.0000**	**2,871.928 5**	**2,871.9285**	**0.9288**		**2,895.149 5**

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	1.2338	41.7424	8.9944	0.1246	2.6558	0.1320	2.7878	0.7315	0.1262	0.8578		13,307.46 53	13,307.465 3	0.5878		13,322.16 12
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	**1.2821**	**41.7710**	**9.3724**	**0.1258**	**2.7726**	**0.1327**	**2.9053**	**0.7626**	**0.1269**	**0.8896**		**13,424.16 69**	**13,424.166 9**	**0.5905**		**13,438.92 91**

3.5 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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0940**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0644	0.0382	0.5040	1.5600e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		155.6022	155.6022	3.5400e-003		155.6906
Total	**0.0644**	**0.0382**	**0.5040**	**1.5600e-003**	**0.1643**	**1.0000e-003**	**0.1653**	**0.0436**	**9.2000e-004**	**0.0445**		**155.6022**	**155.6022**	**3.5400e-003**		**155.6906**

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	0.2635	1.2271	13.7636	0.0189		0.0400	0.0400		0.0400	0.0400	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2635**	**1.2271**	**13.7636**	**0.0189**		**0.0400**	**0.0400**		**0.0400**	**0.0400**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0644	0.0382	0.5040	1.5600e-003	0.1557	1.0000e-003	0.1567	0.0415	9.2000e-004	0.0424		155.6022	155.6022	3.5400e-003		155.6906
Total	**0.0644**	**0.0382**	**0.5040**	**1.5600e-003**	**0.1557**	**1.0000e-003**	**0.1567**	**0.0415**	**9.2000e-004**	**0.0424**		**155.6022**	**155.6022**	**3.5400e-003**		**155.6906**

3.6 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	0.9565	30.4977	7.6864	0.0819	2.0312	0.0674	2.0986	0.5847	0.0645	0.6492		8,658.5779	8,658.5779	0.3609		8,667.5991
Worker	2.0642	1.2230	16.1532	0.0500	5.2657	0.0320	5.2977	1.3967	0.0295	1.4262		4,987.0497	4,987.0497	0.1133		4,989.8824
Total	**3.0206**	**31.7207**	**23.8395**	**0.1319**	**7.2968**	**0.0994**	**7.3963**	**1.9814**	**0.0940**	**2.0754**		**13,645.6276**	**13,645.6276**	**0.4742**		**13,657.4814**

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	0.5867	2.7396	17.6822	0.0269		0.1120	0.1120		0.1120	0.1120	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.5867**	**2.7396**	**17.6822**	**0.0269**		**0.1120**	**0.1120**		**0.1120**	**0.1120**	**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	0.9565	30.4977	7.6864	0.0819	1.9443	0.0674	2.0117	0.5634	0.0645	0.6279		8,658.5779	8,658.5779	0.3609		8,667.5991
Worker	2.0642	1.2230	16.1532	0.0500	4.9911	0.0320	5.0231	1.3293	0.0295	1.3588		4,987.0497	4,987.0497	0.1133		4,989.8824
Total	**3.0206**	**31.7207**	**23.8395**	**0.1319**	**6.9354**	**0.0994**	**7.0348**	**1.8927**	**0.0940**	**1.9867**		**13,645.6276**	**13,645.6276**	**0.4742**		**13,657.4814**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.8923	28.8496	7.2390	0.0811	2.0313	0.0586	2.0899	0.5848	0.0560	0.6408		8,576.3402	8,576.3402	0.3447		8,584.9573
Worker	1.9235	1.0975	14.8849	0.0482	5.2657	0.0313	5.2970	1.3967	0.0288	1.4255		4,805.7102	4,805.7102	0.1018		4,808.2542
Total	**2.8158**	**29.9471**	**22.1238**	**0.1293**	**7.2970**	**0.0899**	**7.3868**	**1.9815**	**0.0848**	**2.0663**		**13,382.0504**	**13,382.0504**	**0.4464**		**13,393.2115**

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	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5608**	**2.6936**	**17.6592**	**0.0269**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.8923	28.8496	7.2390	0.0811	1.9444	0.0586	2.0030	0.5635	0.0560	0.6195		8,576.3402	8,576.3402	0.3447		8,584.9573

Worker	1.9235	1.0975	14.8849	0.0482	4.9911	0.0313	5.0224	1.3293	0.0288	1.3581		4,805.7102	4,805.7102	0.1018		4,808.2542
Total	**2.8158**	**29.9471**	**22.1238**	**0.1293**	**6.9355**	**0.0899**	**7.0254**	**1.8928**	**0.0848**	**1.9776**		**13,382.0504**	**13,382.0504**	**0.4464**		**13,393.2115**

3.6 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.6717	21.9158	6.5377	0.0787	2.0314	0.0254	2.0568	0.5848	0.0242	0.6091		8,331.6039	8,331.6039	0.2943		8,338.9610
Worker	1.7978	0.9875	13.7297	0.0464	5.2657	0.0307	5.2963	1.3967	0.0282	1.4249		4,622.9788	4,622.9788	0.0914		4,625.2626
Total	**2.4695**	**22.9033**	**20.2673**	**0.1250**	**7.2971**	**0.0560**	**7.3531**	**1.9815**	**0.0525**	**2.0340**		**12,954.5828**	**12,954.5828**	**0.3856**		**12,964.2236**

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	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.5385**	**2.6513**	**17.6413**	**0.0269**		**0.0930**	**0.0930**		**0.0930**	**0.0930**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.6717	21.9158	6.5377	0.0787	1.9446	0.0254	1.9699	0.5635	0.0242	0.5878		8,331.6039	8,331.6039	0.2943		8,338.9610
Worker	1.7978	0.9875	13.7297	0.0464	4.9911	0.0307	5.0218	1.3293	0.0282	1.3575		4,622.9788	4,622.9788	0.0914		4,625.2626
Total	**2.4695**	**22.9033**	**20.2673**	**0.1250**	**6.9357**	**0.0560**	**6.9917**	**1.8928**	**0.0525**	**1.9453**		**12,954.5828**	**12,954.5828**	**0.3856**		**12,964.2236**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Category	lb/day										lb/day					
Archit. Coating	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**74.0263**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3841	0.2192	2.9723	9.6300e-003	1.0515	6.2500e-003	1.0577	0.2789	5.7500e-003	0.2847		959.6426	959.6426	0.0203		960.1506
Total	**0.3841**	**0.2192**	**2.9723**	**9.6300e-003**	**1.0515**	**6.2500e-003**	**1.0577**	**0.2789**	**5.7500e-003**	**0.2847**		**959.6426**	**959.6426**	**0.0203**		**960.1506**

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	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Total	**74.0263**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.3841	0.2192	2.9723	9.6300e-003	0.9967	6.2500e-003	1.0029	0.2655	5.7500e-003	0.2712		959.6426	959.6426	0.0203		960.1506
Total	**0.3841**	**0.2192**	**2.9723**	**9.6300e-003**	**0.9967**	**6.2500e-003**	**1.0029**	**0.2655**	**5.7500e-003**	**0.2712**		**959.6426**	**959.6426**	**0.0203**		**960.1506**

3.7 Architectural Coating - 2023

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	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**74.0134**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3590	0.1972	2.7417	9.2600e-003	1.0515	6.1200e-003	1.0576	0.2789	5.6400e-003	0.2845		923.1533	923.1533	0.0182		923.6094
Total	**0.3590**	**0.1972**	**2.7417**	**9.2600e-003**	**1.0515**	**6.1200e-003**	**1.0576**	**0.2789**	**5.6400e-003**	**0.2845**		**923.1533**	**923.1533**	**0.0182**		**923.6094**

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	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**74.0134**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3590	0.1972	2.7417	9.2600e-003	0.9967	6.1200e-003	1.0028	0.2655	5.6400e-003	0.2711		923.1533	923.1533	0.0182		923.6094
Total	**0.3590**	**0.1972**	**2.7417**	**9.2600e-003**	**0.9967**	**6.1200e-003**	**1.0028**	**0.2655**	**5.6400e-003**	**0.2711**		**923.1533**	**923.1533**	**0.0182**		**923.6094**

Woz Way - Office - Santa Clara County, Winter

Woz Way - Office (Construction Unmitigated)

Santa Clara County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,281.71	1000sqft	2.00	1,281,707.00	0
Enclosed Parking with Elevator	1,251.00	Space	1.00	544,379.00	0
Strip Mall	6.07	1000sqft	0.14	6,073.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	171	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per PG&E 2019 CRSR

Land Use - Project use

Construction Phase - Estimated construction schedule

Off-road Equipment - EstimateD equipment use

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Demolition - Buildings and Locust Street demolition

Grading - Estimated export

Architectural Coating -

Vehicle Trips - Adjusted trip generation and trip length

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation - Per BAAQMD basic control measures/ Standard Permit Conditions

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation -

Energy Mitigation - Energy reduction from 2016 Title 24 to 2019 Title 24

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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	8.00	150.00
tblConstructionPhase	NumDays	18.00	45.00
tblConstructionPhase	NumDays	230.00	410.00
tblConstructionPhase	NumDays	18.00	185.00
tblGrading	MaterialExported	0.00	191,000.00
tblLandUse	LandUseSquareFeet	1,281,710.00	1,281,707.00
tblLandUse	LandUseSquareFeet	500,400.00	544,379.00
tblLandUse	LandUseSquareFeet	6,070.00	6,073.00
tblLandUse	LotAcreage	29.42	2.00
tblLandUse	LotAcreage	11.26	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19
tblVehicleTrips	CC_TL	7.30	9.19

tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CNW_TL	7.30	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	CW_TL	9.50	9.19
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	2.46	5.77
tblVehicleTrips	ST_TR	42.04	22.42
tblVehicleTrips	SU_TR	1.05	5.77
tblVehicleTrips	SU_TR	20.43	22.42
tblVehicleTrips	WD_TR	11.03	5.77
tblVehicleTrips	WD_TR	44.32	22.42

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					
2021	5.1137	67.4824	40.2886	0.1532	18.2141	2.0454	20.2595	9.9699	1.8817	11.8516	0.0000	16,059.4437	16,059.4437	1.5460	0.0000	16,098.0931

2022	79.1441	47.7077	42.8859	0.1620	8.3485	0.9888	9.3373	2.2604	0.9353	3.1957	0.0000	16,489.2900	16,489.2900	1.1145	0.0000	16,517.1517
2023	78.6132	39.1610	40.5262	0.1577	8.3486	0.8337	9.1823	2.2604	0.7883	3.0487	0.0000	16,052.6563	16,052.6563	1.0406	0.0000	16,078.6702
Maximum	**79.1441**	**67.4824**	**42.8859**	**0.1620**	**18.2141**	**2.0454**	**20.2595**	**9.9699**	**1.8817**	**11.8516**	**0.0000**	**16,489.2900**	**16,489.2900**	**1.5460**	**0.0000**	**16,517.1517**

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					
2021	3.7995	44.3194	41.3956	0.1532	7.8635	0.2136	7.9265	4.2827	0.2080	4.3456	0.0000	16,059.4437	16,059.4437	1.5460	0.0000	16,098.0931
2022	77.9986	34.7856	44.1817	0.1620	7.9322	0.2816	8.2138	2.1582	0.2760	2.4342	0.0000	16,489.2900	16,489.2900	1.1145	0.0000	16,517.1517
2023	77.5789	27.4274	41.9236	0.1577	7.9323	0.2270	8.1593	2.1583	0.2229	2.3812	0.0000	16,052.6563	16,052.6563	1.0406	0.0000	16,078.6701
Maximum	**77.9986**	**44.3194**	**44.1817**	**0.1620**	**7.9323**	**0.2816**	**8.2138**	**4.2827**	**0.2760**	**4.3456**	**0.0000**	**16,489.2900**	**16,489.2900**	**1.5460**	**0.0000**	**16,517.1517**

	ROG	NOx	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	**2.15**	**30.98**	**-3.07**	**0.00**	**32.03**	**81.33**	**37.34**	**40.66**	**80.39**	**49.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	2/11/2021	5	30	
2	Site Preparation	Site Preparation	2/12/2021	3/11/2021	5	20	
3	Grading	Grading	3/12/2021	10/7/2021	5	150	
4	Paving	Paving	10/8/2021	12/9/2021	5	45	

5	Building Construction	Building Construction	12/10/2021	7/6/2023	5	410	
6	Architectural Coating	Architectural Coating	11/15/2022	7/31/2023	5	185	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 1

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,931,670; Non-Residential Outdoor: 643,890; 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	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	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

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	333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	23,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	641.00	300.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	128.00	0.00	0.00	10.80	7.30	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 - 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					
Fugitive Dust					2.4003	0.0000	2.4003	0.3634	0.0000	0.3634			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174

Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**2.4003**	**1.5513**	**3.9516**	**0.3634**	**1.4411**	**1.8045**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0884	2.9786	0.6734	8.5400e-003	0.1940	9.3600e-003	0.2034	0.0532	8.9500e-003	0.0621		912.1968	912.1968	0.0429		913.2685
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	**0.1399**	**3.0135**	**1.0224**	**9.6200e-003**	**0.3172**	**0.0101**	**0.3273**	**0.0859**	**9.6400e-003**	**0.0955**		**1,019.4121**	**1,019.4121**	**0.0453**		**1,020.5452**

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					1.0261	0.0000	1.0261	0.1554	0.0000	0.1554			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.0261**	**0.0616**	**1.0878**	**0.1554**	**0.0616**	**0.2170**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0884	2.9786	0.6734	8.5400e-003	0.1852	9.3600e-003	0.1946	0.0510	8.9500e-003	0.0600		912.1968	912.1968	0.0429		913.2685
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	**0.1399**	**3.0135**	**1.0224**	**9.6200e-003**	**0.3020**	**0.0101**	**0.3121**	**0.0821**	**9.6400e-003**	**0.0918**		**1,019.4121**	**1,019.4121**	**0.0453**		**1,020.5452**

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0618	0.0419	0.4188	1.2900e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		128.6583	128.6583	2.9500e-003		128.7321
Total	**0.0618**	**0.0419**	**0.4188**	**1.2900e-003**	**0.1479**	**9.0000e-004**	**0.1488**	**0.0392**	**8.3000e-004**	**0.0401**		**128.6583**	**128.6583**	**2.9500e-003**		**128.7321**

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	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.7233**	**0.0621**	**7.7854**	**4.2454**	**0.0621**	**4.3075**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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	0.0618	0.0419	0.4188	1.2900e-003	0.1402	9.0000e-004	0.1411	0.0373	8.3000e-004	0.0382		128.6583	128.6583	2.9500e-003		128.7321

Total	**0.0618**	**0.0419**	**0.4188**	**1.2900e-003**	**0.1402**	**9.0000e-004**	**0.1411**	**0.0373**	**8.3000e-004**	**0.0382**		**128.6583**	**128.6583**	**2.9500e-003**		**128.7321**

3.4 Grading - 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					
Fugitive Dust					6.6963	0.0000	6.6963	3.3893	0.0000	3.3893			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.6963**	**1.1599**	**7.8563**	**3.3893**	**1.0671**	**4.4564**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2678	42.7108	9.6567	0.1225	2.7821	0.1342	2.9162	0.7625	0.1284	0.8909		13,080.3000	13,080.3000	0.6147		13,095.6668
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	**1.3193**	**42.7457**	**10.0056**	**0.1236**	**2.9053**	**0.1349**	**3.0402**	**0.7952**	**0.1290**	**0.9242**		**13,187.5152**	**13,187.5152**	**0.6171**		**13,202.9436**

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					2.8627	0.0000	2.8627	1.4489	0.0000	1.4489			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		0.0484	0.0484		0.0484	0.0484	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.3632**	**1.5737**	**17.7527**	**0.0296**	**2.8627**	**0.0484**	**2.9111**	**1.4489**	**0.0484**	**1.4973**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

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	1.2678	42.7108	9.6567	0.1225	2.6558	0.1342	2.7900	0.7315	0.1284	0.8599		13,080.3000	13,080.3000	0.6147		13,095.6668
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	**1.3193**	**42.7457**	**10.0056**	**0.1236**	**2.7726**	**0.1349**	**2.9075**	**0.7626**	**0.1290**	**0.8917**		**13,187.5152**	**13,187.5152**	**0.6171**		**13,202.9436**

3.5 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	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0940**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0686	0.0466	0.4653	1.4300e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		142.9536	142.9536	3.2800e-003		143.0357
Total	**0.0686**	**0.0466**	**0.4653**	**1.4300e-003**	**0.1643**	**1.0000e-003**	**0.1653**	**0.0436**	**9.2000e-004**	**0.0445**		**142.9536**	**142.9536**	**3.2800e-003**		**143.0357**

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	0.2635	1.2271	13.7636	0.0189		0.0400	0.0400		0.0400	0.0400	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2635**	**1.2271**	**13.7636**	**0.0189**		**0.0400**	**0.0400**		**0.0400**	**0.0400**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

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	0.0686	0.0466	0.4653	1.4300e-003	0.1557	1.0000e-003	0.1567	0.0415	9.2000e-004	0.0424		142.9536	142.9536	3.2800e-003		143.0357
Total	**0.0686**	**0.0466**	**0.4653**	**1.4300e-003**	**0.1557**	**1.0000e-003**	**0.1567**	**0.0415**	**9.2000e-004**	**0.0424**		**142.9536**	**142.9536**	**3.2800e-003**		**143.0357**

3.6 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	1.0134	30.7696	8.8009	0.0798	2.0312	0.0696	2.1008	0.5847	0.0666	0.6513		8,438.1140	8,438.1140	0.3889		8,447.8361
Worker	2.1994	1.4935	14.9125	0.0460	5.2657	0.0320	5.2977	1.3967	0.0295	1.4262		4,581.6637	4,581.6637	0.1052		4,584.2933
Total	**3.2128**	**32.2631**	**23.7134**	**0.1258**	**7.2968**	**0.1016**	**7.3984**	**1.9814**	**0.0960**	**2.0775**		**13,019.7777**	**13,019.7777**	**0.4941**		**13,032.1294**

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	0.5867	2.7396	17.6822	0.0269		0.1120	0.1120		0.1120	0.1120	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.5867**	**2.7396**	**17.6822**	**0.0269**		**0.1120**	**0.1120**		**0.1120**	**0.1120**	**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	1.0134	30.7696	8.8009	0.0798	1.9443	0.0696	2.0139	0.5634	0.0666	0.6300		8,438.1140	8,438.1140	0.3889		8,447.8361
Worker	2.1994	1.4935	14.9125	0.0460	4.9911	0.0320	5.0231	1.3293	0.0295	1.3588		4,581.6637	4,581.6637	0.1052		4,584.2933
Total	**3.2128**	**32.2631**	**23.7134**	**0.1258**	**6.9354**	**0.1016**	**7.0370**	**1.8927**	**0.0960**	**1.9888**		**13,019.7777**	**13,019.7777**	**0.4941**		**13,032.1294**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.9455	29.0762	8.2894	0.0790	2.0313	0.0606	2.0919	0.5848	0.0579	0.6427		8,356.5597	8,356.5597	0.3712		8,365.8397
Worker	2.0556	1.3398	13.6864	0.0443	5.2657	0.0313	5.2970	1.3967	0.0288	1.4255		4,415.2719	4,415.2719	0.0942		4,417.6267
Total	**3.0011**	**30.4160**	**21.9759**	**0.1233**	**7.2970**	**0.0919**	**7.3888**	**1.9815**	**0.0867**	**2.0682**		**12,771.8316**	**12,771.8316**	**0.4654**		**12,783.4664**

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	0.5608	2.6936	17.6592	0.0269		0.1018	0.1018		0.1018	0.1018	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.5608**	**2.6936**	**17.6592**	**0.0269**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	0.9455	29.0762	8.2894	0.0790	1.9444	0.0606	2.0050	0.5635	0.0579	0.6214		8,356.5597	8,356.5597	0.3712		8,365.8397
Worker	2.0556	1.3398	13.6864	0.0443	4.9911	0.0313	5.0224	1.3293	0.0288	1.3581		4,415.2719	4,415.2719	0.0942		4,417.6267
Total	**3.0011**	**30.4160**	**21.9759**	**0.1233**	**6.9355**	**0.0919**	**7.0274**	**1.8928**	**0.0867**	**1.9795**		**12,771.8316**	**12,771.8316**	**0.4654**		**12,783.4664**

3.6 Building Construction - 2023

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.7140	22.0277	7.3877	0.0767	2.0314	0.0264	2.0578	0.5848	0.0252	0.6100		8,120.2198	8,120.2198	0.3148		8,128.0888
Worker	1.9280	1.2049	12.5728	0.0426	5.2657	0.0307	5.2963	1.3967	0.0282	1.4249		4,247.5866	4,247.5866	0.0843		4,249.6935
Total	**2.6420**	**23.2325**	**19.9605**	**0.1193**	**7.2971**	**0.0571**	**7.3541**	**1.9815**	**0.0534**	**2.0350**		**12,367.8063**	**12,367.8063**	**0.3990**		**12,377.7823**

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	0.5385	2.6513	17.6413	0.0269		0.0930	0.0930		0.0930	0.0930	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Total	**0.5385**	**2.6513**	**17.6413**	**0.0269**		**0.0930**	**0.0930**		**0.0930**	**0.0930**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.7140	22.0277	7.3877	0.0767	1.9446	0.0264	1.9709	0.5635	0.0252	0.5887		8,120.2198	8,120.2198	0.3148		8,128.0888
Worker	1.9280	1.2049	12.5728	0.0426	4.9911	0.0307	5.0218	1.3293	0.0282	1.3575		4,247.5866	4,247.5866	0.0843		4,249.6935
Total	**2.6420**	**23.2325**	**19.9605**	**0.1193**	**6.9357**	**0.0571**	**6.9927**	**1.8928**	**0.0534**	**1.9463**		**12,367.8063**	**12,367.8063**	**0.3990**		**12,377.7823**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**74.0263**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.4105	0.2675	2.7330	8.8400e-003	1.0515	6.2500e-003	1.0577	0.2789	5.7500e-003	0.2847		881.6768	881.6768	0.0188		882.1470
Total	**0.4105**	**0.2675**	**2.7330**	**8.8400e-003**	**1.0515**	**6.2500e-003**	**1.0577**	**0.2789**	**5.7500e-003**	**0.2847**		**881.6768**	**881.6768**	**0.0188**		**882.1470**

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	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**74.0263**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

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	0.4105	0.2675	2.7330	8.8400e-003	0.9967	6.2500e-003	1.0029	0.2655	5.7500e-003	0.2712		881.6768	881.6768	0.0188		882.1470
Total	**0.4105**	**0.2675**	**2.7330**	**8.8400e-003**	**0.9967**	**6.2500e-003**	**1.0029**	**0.2655**	**5.7500e-003**	**0.2712**		**881.6768**	**881.6768**	**0.0188**		**882.1470**

3.7 Architectural Coating - 2023

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	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**74.0134**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3850	0.2406	2.5106	8.5100e-003	1.0515	6.1200e-003	1.0576	0.2789	5.6400e-003	0.2845		848.1920	848.1920	0.0168		848.6127
Total	**0.3850**	**0.2406**	**2.5106**	**8.5100e-003**	**1.0515**	**6.1200e-003**	**1.0576**	**0.2789**	**5.6400e-003**	**0.2845**		**848.1920**	**848.1920**	**0.0168**		**848.6127**

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	73.8218					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**74.0134**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.3850	0.2406	2.5106	8.5100e-003	0.9967	6.1200e-003	1.0028	0.2655	5.6400e-003	0.2711		848.1920	848.1920	0.0168		848.6127
Total	**0.3850**	**0.2406**	**2.5106**	**8.5100e-003**	**0.9967**	**6.1200e-003**	**1.0028**	**0.2655**	**5.6400e-003**	**0.2711**		**848.1920**	**848.1920**	**0.0168**		**848.6127**

Kimley»Horn

MEMORANDUM

To: City of San José

From: Ace Malisos, Air Quality and Noise Manager, Kimley-Horn
Noemi Wyss AICP, Environmental Planner, Kimley-Horn
Kimley-Horn and Associates, Inc.

Date: February 21, 2021

Subject: Woz Way Project – Supplemental Air Quality, Greenhouse Gas Emissions, Energy, Health Risk Assessment, and Noise Analysis

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1.0 PURPOSE

This supplemental analysis evaluates the proposed Woz Way project in the City of San José based on the latest site plan dated February 2021. The Project analyzed in the Air Quality, Greenhouse Gas Emissions, Health Risk Assessment and Noise technical reports are based on the site plan dated April 9, 2020 which was used to provide a more conservative analysis for operational air quality emissions, GHG emissions, and energy. This technical memorandum compares the changes between the April 2020 site plan and the February 2021 site plan and presents the following:

- Land Use Comparison
- Air Quality, Greenhouse Gas Emissions, Energy, and Health Risk Assessment
- Noise

2.0 LAND USE COMPARISON

Table 1: Project Site Plan Land Use Comparison compares the land use differences between the Project modeled in April 2020 and the February 2021 site plans. The April 2020 site plan was modeled in the Technical Reports (February 2021).

Table 1: Project Site Plan Land Use Comparison

Project Site Plan Version	Office Land Use (sf)	Retail Land Use (sf)	Parking Garage (sf)	Total (sf)[1]	Gross Project Size (sf)	Vehicle Trips	Estimated Population
April 2020 (Analyzed in February 2021 Reports)	1,245,399	6,073	544,379	1,795,851	1,832,159	7,528	4,176
February 2021 (the Proposed Project)	1,226,600	10,107	541,436	1,778,143	1,851,858	7,520	4,130
Land Use Difference (sf)	***(18,799)***	***4,034***	***(2,943)***	***(17,708)***	***19,699***	***(8)***	***(46)***

[1] Total sf represents trip-generating uses and parking garage.

3.0 Air Quality, Greenhouse Gas Emissions, Energy, and Health Risk Assessment

Construction of the April 2020 and February 2021 site plans would result in similar duration and equipment use as the underground parking garage is approximately 3,000 sf smaller and the overall building footprint is similar to the previous model. The February 2021 site plan may result in slightly less equipment use and worker trips due to the smaller office area. However, the overall building footprint is unchanged. Changes in construction air quality emissions and health risk impacts would be negligible.

While the building area of the trip-generating uses would decrease (net 14,765 sf) the gross square-footage would increase by 19,699 sf. This represents a 1.08 percent increase in gross building area. As shown in **Table 2: Construction Air Quality Emissions**, a proportional 1.08 percent increase in construction emissions would not result in exceedances of BAAQMD thresholds. No changes to the conclusions or mitigation measures in the technical reports would occur.

Table 2: Construction Air Quality 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 ($PM_{2.5}$)
April 2020 Mitigated Emissions						
2021	3.61	43.34	0.21	0.21	7.86	4.28
2022	36.64	34.30	0.28	0.27	7.93	2.16
2023	36.23	27.05	0.26	0.22	7.93	2.16
Maximum	**36.64**	**43.34**	**0.28**	**0.27**	**7.93**	**4.28**
BAAQMD Significance Threshold [2,3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**
February 2021 Mitigated Emissions						
2021	3.65	43.81	0.21	0.21	7.94	4.33
2022	37.03	34.67	0.28	0.27	8.02	2.18
2023	36.62	27.34	0.26	0.22	8.02	2.18
Maximum	**37.03**	**43.81**	**0.28**	**0.27**	**8.02**	**4.33**
BAAQMD Significance Threshold [2,3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**N/A**	**N/A**

1. Emissions were calculated using CalEEMod. Mitigated emissions include compliance with the BAAQMD's Basic Construction Mitigation Measures Recommended for All Projects, City Standard Permit Conditions, Mitigation Measure AQ-1 and GP Policy MS-13.1. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum

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 ($PM_{2.5}$)
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 sign with contact information to register dust complaints and take corrective action within 48 hours. These measures were incorporated into CalEEMod mitigation module; therefore, the effects of standard conditions and mitigation are shown as mitigated scenario. Additionally, all construction equipment over 25 horsepower are required to meet CARB Tier 4 Final emissions standards (Mitigation Measure AQ-1). The Project is required to use low-VOC paint (50 g/L or less) (Mitigation Measure AQ-1). 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 *Air Quality Technical Report*.						

As shown in **Table 1** above, the February 2021 site plan has a similar building footprint and eight fewer vehicle trips compared to the April 2020 site plan analyzed in the Technical Reports (February 2021). Therefore, the February 2021 site plan update is consistent with the emissions presented in the April 2020 Technical Reports. The April 2020 site plan has an estimated 4,176 population, while the current February 2021 site plan would result in an anticipated 4,130 service population.

As shown in **Table 3: Operational Greenhouse Gas Emissions**, a proportional 1.08 percent increase in GHG emissions would not result in exceedances of City of San José GHG thresholds. As the building footprint is similar to the February 2021 site plan but trip-generating uses would be smaller, overall GHG emissions would be less. Additionally, the February 2021 site plan would result in eight fewer vehicle trips. Additionally, air quality emissions and energy consumption would also be lower. No changes to the conclusions or mitigation measures in the GHG analysis would occur.

Table 3: Operational Greenhouse Gas Emissions

Category	$MTCO_2e$[1]
April 2020 Project	
Total Project[2]	**8,282.53**
Population[3]	4,176
Project $MTCO_2e$/ SP/year	**1.99**
Threshold	**2.94 $MTCO_2e$/SP/YR**
Exceeds Threshold?	**No**
February 2021 Project	
Total April 2020 Project[2]	**8,371.58**
Population[3]	4,130
Project $MTCO_2e$/ SP/year	**2.03**
Threshold	**2.94 $MTCO_2e$/SP/YR**
Exceeds Threshold?	**No**

1. Emissions were calculated using CalEEMod version 2016.3.2.
2. Emissions may not total due to rounding.
Source: CalEEMod version 2016.3.2. Refer to Greenhouse Gas Technical Report for model outputs.

As shown in **Table 4: Operational Energy Use**, the 1.08 percent proportional increase in gross building square footage would result in negligible increases countywide in electricity, natural gas, and fuel use. Additionally, the February 2021 site plan would result in eight fewer vehicle trips. No changes to the conclusions or mitigation measures in the energy analysis would occur.

Table 4: Operational Energy Use

Source	Project Operational Usage	Santa Clara County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	**Megawatt Hour/Year (MWh/year)**		
April 2020 Project Area [1]	23,113	16,668,161	0.1387%
February 2021 Project Area [1]	23,362		0.1402%
Natural Gas Use	**Therms/year**		
April 2020 Project Area [1]	147,203	440,030,822	0.0335%
February 2021 Project Area [1]	148,786		0.0338%
Diesel Use	**Gallons/Year**		
April 2020 Project Mobile [2]	78,053	101,253,089	0.0771%
February 2021 Project Mobile [2]	78,892		0.0779%
Gasoline Use	**Gallons/Year**		

Source	Project Operational Usage	Santa Clara County Annual Energy Consumption	Percentage Increase Countywide
April 2020 Project Mobile [2]	600,947	610,142,526	0.0985%
February 2021 Project Mobile [2]	607,408		0.0996%

Notes:
1. The electricity and natural gas usage are based on project-specific estimates and CalEEMod defaults.
2. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2017 for operational year 2022. For electric vehicles, model year 2015 electric vehicle fuel economy is used from the DOE Fuel Economy Guide.

Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2017: California Air Resources Board Emission Factor Model; kBTU: thousand British Thermal Units; kWh: kilowatt-hour

4.0 Noise

As shown in **Table 1**, the building footprint in the February 2021 site plan would result in eight fewer vehicle trips. However, due to the ADT on Almaden Boulevard and Woz Way, overall traffic noise would remain unchanged. Stationary noise evaluated in the Technical Reports (February 2021) would not change.

As discussed above in Section 3, construction of the February 2021 site plan may result in fewer worker trips which could reduce construction traffic noise. However, the footprint of the building and lot size is similar. Overall construction vibration and noise would be unchanged. No changes to the conclusions or mitigation measures in the noise analysis would occur.