Appendix A

Air Quality Assessment

2375-2395 S. BASCOM AVENUE ASSISTED LIVING AIR QUALITY & GREENHOUSE GAS ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address air quality impacts and compute the greenhouse gas (GHG) emissions associated with the proposed senior assisted living and memory care project located at 2375 and 2395 S. Bascom Avenue in San José, California. The air quality impacts and GHG emissions would be associated with the demolition of the existing uses at the site, construction of the new building and infrastructure, and operation of the project. Air pollutant and GHG emissions associated with the construction and operation of the project were predicted using models. In addition, the potential construction health risk impact to nearby sensitive receptors and the impact of existing toxic air contaminant (TAC) sources affecting the proposed residences were evaluated. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Project Description

The project site is currently developed with several small retail buildings totaling 6,030 square feet (sf) on a 1.23-acre site. The project proposes to demolish the existing uses and construct a three-story, 79-unit/88-bed adult senior assisted living facility totaling 73,000-sf. The building would also include a subterranean parking garage with 45 spaces with access via S. Bascom Avenue. The proposed facility would include the provision of medicine management/administration, daily health monitoring, visits from third party medical providers, supervision by an on-site nurse, as well as access to entertainment, beauty salon, fitness activities and dining facilities, including prepared meals, to on-site residents. The total number of staff employed in the community is expected to be 75 workers. The assisted living facility would also include a 280-kilowatt (kW) emergency generator powered by a diesel engine in the northern corner of the underground parking level.

Setting

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

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

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

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

Toxic Air Contaminants

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

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. The most recent Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines were published in February of 2015.[2] See *Attachment 1* for a detailed description of the community risk modeling methodology used in this assessment.

Regulatory Agencies

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[3] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

[2] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.
[3] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[4] The detailed community risk modeling methodology used in this assessment is contained in *Attachment 1*.

City San José Envision 2040 General Plan

The San José Envision 2040 General Plan includes goals, policies, and actions to reduce exposure of the City's sensitive population to exposure of air pollution and toxic air contaminants or TACs. The following goals, policies, and actions are applicable to the proposed project:

Applicable Goals – Air Pollutant Emission Reduction

Goal MS-10 Minimize air pollutant emissions from new and existing development.

Applicable Policies – Air Pollutant Emission Reduction

MS-10.1 Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

MS-10.2 Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

Applicable Goals – Toxic Air Contaminants

Goal MS-11 Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Applicable Policies – Toxic Air Contaminants

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.

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.

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

MS-11.4 Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

Actions – Toxic Air Contaminants

MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

Applicable Goals – Construction Air Emissions

Goal MS-13 Minimize air pollutant emissions during demolition and construction activities

Applicable Policies – Construction Air Emissions

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.

Applicable Actions – Construction Air Emissions

MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The closest sensitive receptors to the project site are adjacent single- and multi-family residences to the west of the project site. There are additional residences at farther distances from the project site. This project would introduce new sensitive receptors to the area in the form of adults.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 *CEQA Air Quality Guidelines*. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld.

BAAQMD updated the *CEQA Air Quality Guidelines* in 2017 to include the latest significance thresholds that were used in this analysis are summarized in Table 1.

Table 1. Community Risk Significance and GHG Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1,000-foot zone of influence)**	
Excess Cancer Risk	>10.0 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	
Greenhouse Gas Emissions			
Land Use Projects – direct and indirect emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons annually or 4.6 metric tons per capita (for 2020) 660 metric tons annually or 2.6 metric tons per capita (for 2030)*		

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. GHG = greenhouse gases.

*BAAQMD does not have a recommended post-2020 GHG threshold.

Air Quality Impacts and Conditions of Approval

Impact 1: Conflict with or obstruct implementation of the applicable air quality plan?

BAAQMD is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the San Francisco Bay Area Air Basin (SFBAAB). BAAQMD, with assistance from the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), has prepared and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive of which is the *Bay Area 2017 Clean Air Plan*.[5] The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHGs.

The 2017 Clean Air Plan, adopted by BAAQMD in April 2017, includes control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. Plans must show consistency with the control measures listed within the Clean Air Plan. At the project-level, there are no consistency measures or thresholds. The proposed project would not conflict with the latest Clean Air planning efforts since 1) project would have emissions below the BAAQMD thresholds (see below), 2) the project would be considered urban infill, and 3) the project would be located near transit with regional connections.

Impact 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?

The Bay Area is considered a non-attainment area for ground-level ozone and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

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

[5] Bay Area Air Quality Management District (BAAQMD), 2017. *Final 2017 Clean Air Plan.*

Construction period emissions

CalEEMod provided annual emissions for construction and estimates emissions for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario for the project, including equipment list and schedule, was based on a combination of CalEEMod information and project applicant information. CalEEMod defaults were used for the construction schedule and equipment, which includes equipment quantity and usage. The project land uses and project hauling information was based on information provided by the project applicant. The proposed project land uses and demolition/earthwork volumes were entered into CalEEMod as follows:

- 79 dwelling units, 73,000-sf, and 1.23 acres entered as "Congregate Care (Assisted Living)",
- 45 parking spaces entered as "Enclosed Parking Structure with Elevator",
- 6,030-sf of existing building demolition, and
- 15,250 cubic yards (cy) of soil export during grading.

Construction was assumed to begin July 2020. Although the total project construction would last 18 months, there would only be 11 months of quantifiable exterior construction emissions, with the remaining time for negligible interior construction emissions. There were an estimated 246 exterior construction workdays. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 2 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 2, predicted the construction period emissions would not exceed the BAAQMD significance thresholds.

Table 2. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Total construction emissions (tons)	0.8 tons	2.2 tons	0.1 tons	0.1 tons
Average daily emissions (pounds)[1]	6.3 lbs./day	17.5 lbs./day	0.8 lbs./day	0.7 lbs./day
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No
Notes: [1]Assumes 246 workdays.				

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD *CEQA Air Quality Guidelines* consider these impacts to be less-than-significant if best management practices are implemented to reduce these emissions. *Mitigation Measure AQ-1 would implement BAAQMD-recommended best management practices.*

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

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

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

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

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

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

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

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

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

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

Effectiveness of Mitigation Measure AQ-1

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

Operational Period Emissions

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

Land Uses

The project land uses were entered into CalEEMod as described above for the construction period modeling.

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest the project could possibly be constructed and begin operating would be 2022. Emissions associated with build-out later than 2022 would be lower.

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates, which were input to the model using the daily trip generation rate provided in the project trip generation table. The project traffic data provided project trip generation values for the proposed assisted living community.[6] The Saturday and Sunday trip rates were assumed to be the weekday rate adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips. The *Location-Based Vehicle Mode Shore* reduction was applied. The trip generation units for the assisted living land use were in "beds". The assisted living land use in CalEEMod is in "dwelling units". Since the unit number for the assisted living was known, the dwelling units were used and a computed daily trip rate based on the number of daily trips for 88 beds divided by the 79 dwelling units. The trip generation value for the weekday was computed at 2.63 trips per day. The weekend trip rates were computed as 2.11 trips per day for Saturday and 2.34 trips per day for Sunday. The default trip lengths and trip types specified by CalEEMod were used.

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. Indirect emissions from electricity were computed in CalEEMod. The model has a default rate of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on PG&E's 2008 emissions rate. The rate was adjusted to account for PG&E's projected 2020 CO_2 intensity rate. This 2020 rate is based, in part, on the requirement of a renewable energy portfolio standard of 33

[6] Hexagon Transportation Consultants. *2375 & 2395 S. Bascom Avenue Senior Assisted Living Development Draft Transportation Analysis*. November 2019.

percent by the year 2020. The derived 2020 rate for PG&E was estimated at 290 pounds of CO_2 per megawatt of electricity delivered.[7]

Emergency Generator

The project would include a 280-kilowatt emergency generator that is powered by a diesel engine. Emissions from the testing and maintenance of the proposed generator engine were calculated for a 375-horsepower diesel engine (size estimated to power the generator). The CalEEMod modeling assumed 50 hours of annual operation for testing and maintenance purposes.

Other Inputs

Default model assumptions for emissions associated with solid waste generation use were applied to the project. Water/wastewater use were changed to 100% aerobic conditions to represent wastewater treatment plant conditions. All hearths, if included with the project, were assumed to be gas powered.

Existing Uses

A CalEEMod model run was developed to compute emissions from use of the existing building as if it was operating in 2022. Inputs for this modeling scenario included 6,030-sf entered as "Strip Mall" and 1.09-acres entered as "Parking Lot." The existing trip rate generation rates, which were based on traffic counts conducted by the traffic consultant at the existing site, were input to the model. These traffic rate inputs were applied to the modeling in the same manner described for the proposed project.

Project Operational Emissions

As shown in Table 3, operational emissions would not exceed the BAAQMD significance thresholds.

Table 3. Operational Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2022 Project Operational Emissions (*tons/year*)	0.4 tons	0.3 tons	0.2 tons	0.1 tons
2022 Existing Operational Emissions (*tons/year*)	<0.1 tons	0.1 tons	0.1 tons	<0.1 tons
Net Annual Emissions (*tons/year*)	0.4 tons	0.2 tons	0.1 tons	<0.1 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	No	No	No	No
2022 Project Operational Emissions (*lbs/day*)[1]	2.0 lbs.	1.1 lbs.	0.7 lbs.	0.2 lbs.
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	No	No	No	No
Notes: [1] Assumes 365-day operation.				

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

Impact 3: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased community risk can occur either by introducing a new source of TACs during construction and operation with the potential to adversely affect existing sensitive receptors in the project vicinity or by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs.

Temporary project construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors. A construction health risk assessment was prepared to address project construction impacts on the surrounding off-site sensitive receptors.

The project would introduce new residents that are sensitive receptors and a new source of TACs in the form of an emergency generator powered by a diesel engine. There are also several sources of TACs and localized air pollutants in the vicinity of the project. The impact of the existing and new sources of TACs upon the existing sensitive receptors and new incoming sensitive receptors was assessed.

Community risk impacts are addressed by predicting increased lifetime cancer risk, the increase in annual $PM_{2.5}$ concentrations, and computing the Hazard Index (HI) for non-cancer health risks. The methodology for computing community risks impacts is contained in *Attachment 1.*

Construction Community Health Risk Impacts

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issue associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[8] This assessment included dispersion modeling to predict the offsite and onsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages as 0.0914 tons (183 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling

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

at or near the site would occur at the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.0104 tons (21 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[9] The modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (19.7 feet) was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 2 meters (6.6 feet) was used for the area source. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m., when the majority of construction activity would occur according to the provided construction worksheet.

The modeling used a five-year data set (2006-2010) of hourly meteorological data from the San José International Airport that was prepared for use with the AERMOD model by BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2021-2022 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. Receptor heights of 1.5 meters (4.9 feet) and 4.5 meters (14.8 feet) were used to represent the breathing height on the first and second floors of nearby single- and multi-family residences.

Construction Impacts

The maximum-modeled annual DPM and $PM_{2.5}$ concentrations, which includes both the DPM and fugitive $PM_{2.5}$ concentrations, were identified at nearby sensitive receptors (as shown in Figure 1) to find the maximally exposed individuals (MEIs). Using the maximum annual modeled DPM concentrations, the maximum increased cancer risks were calculated using BAAQMD recommended methods and exposure parameters described in *Attachment 1*. Non-cancer health hazards and maximum $PM_{2.5}$ concentrations were also calculated and identified. *Attachment 3* to this report includes the emission calculations used for the construction area source modeling and the cancer risk calculations.

Results of this assessment indicated that the construction MEI was located on the first floor (1.5 meters above ground) of the single-family residence to the north of the project site (as seen in Figure 1). The maximum increased cancer risks from construction exceed the BAAQMD single-source threshold of greater than 10.0 per million. Table 4 summarizes the maximum cancer risks,

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

$PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities affecting the MEI.

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

Community Health Risk Impacts from Project Operation – Generator

The project's traffic is not expected to be a source of TAC or localized air pollutant emissions, as the project would not generate substantial truck traffic. However, the project would introduce new TACs to existing sensitive receptors in the form of an emergency backup diesel generator. The project's operational impacts were analyzed and assessed at the locations of the existing sensitive receptors. A 30-year period was used to evaluate the project's community risk impacts with the MEI being exposed to construction for the first two years and to the project's operational impacts for the subsequent 28 years. The methodology and results are described below.

Operational Emergency Generator Modeling

The project would include installation of one 280-kilowatt (kW) emergency back-up diesel generator (approximately 375 horsepower) to provide emergency backup power. The generator

would be operated for testing and maintenance purposes, with a maximum of 50 hours per year of non-emergency operation under normal conditions. During testing periods, the engine would typically be run for less than one hour under light engine loads. The generator engine would be required to meet U.S. EPA emission standards and consume commercially available California low sulfur diesel fuel. The emissions from the operation of the generator were calculated based on manufacturer's emissions data and assuming 50 hours per year operation.

CalEEMod DPM emissions from the generator were 0.00226 tons/year. The cancer risk, $PM_{2.5}$, and HI impacts at nearby off-site receptors were identified using BAAQMD's *Risk and Hazards Emissions Screening Calculator*. While the $PM_{2.5}$ and HI impacts would not exceed their respective screening thresholds at the closest off-site receptor, the cancer risk exceeded the screening threshold. Therefore, to estimate potential cancer risks impacts from operation of the generator, the AERMOD dispersion model was used to calculate the maximum annual DPM concentrations at off-site sensitive receptor locations. The location of the generator would be in the northern corner of the underground parking level. The modeling was conducted using a five-year data set (2006-2010) of hourly meteorological data from San Jose International Airport prepared for use with the AERMOD model by BAAQMD. Stack parameters for modeling were based on AERMOD and BAAQMD default generator parameters (stack height and diameter)[10] and the generator model's specifications sheet (exhaust flow rate and exhaust gas temperature). Annual average DPM concentrations were modeled assuming that generator testing could occur at any time, 24 hours a day, and the generator is operated for 50 hours per year.

The modeled maximum DPM concentration occurred on the third-floor (7.6 meters above ground) of the apartment complex to the south of the project site opposite S. Bascom Avenue, with the residential 30-year exposure cancer risk at 0.6 in one million. The combined risk impacts of TAC sources (project construction (0-2 years) and operation (3-30 years)) were evaluated at the project MEI. At the project MEI, the modeled increased cancer risk from the generator operation would be 0.3 in one million, the screened maximum annual $PM_{2.5}$ concentration would be 0.02 $\mu g/m^3$, and the maximum HI would be 0.01. Table 4 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related operational activities affecting the MEI. The emissions and health risk calculations for the generator are provided in *Attachment 3*.

Total Project Health Risks – Construction and Operation

The cumulative risk impacts from a project is the combination of construction and operational activities. This project impact is computed by adding the construction cancer risk for an infant to the lifetime cancer risk for the project operational conditions at the MEI over a 30-year period. Note that the project MEI is identified as the sensitive receptor that is most impacted by the project's construction and operation. Therefore, the receptor may not be the same receptor identified within the separate construction or operation dispersion models. In the case of the project, the sensitive receptor identified in Figure 1 as the construction MEI is also the project MEI. At this location, the MEI would be exposed to two years of construction cancer risks and 28 years of operational (includes emergency backup generator) cancer risks. The cancer risks from construction and operation of the project were summed together. Unlike, the increased maximum

[10] The San Francisco Community Risk Reduction Plan: Technical Support Document, BAAQMD, San Francisco Dept. of Public Health, and San Francisco Planning Dept., December 2012

cancer risk, the annual $PM_{2.5}$ concentration and HI risks are not additive but based on an annual maximum risk for the entirety of the project. As seen in Table 4, the maximum increased cancer risks from construction and operational activities would exceed the BAAQMD single-source threshold of greater than 10.0 per million. The annual $PM_{2.5}$ concentrations and non-cancer hazards from construction and operation activities would not exceed the single-source significance thresholds.

Table 4. Construction and Operation Risk Impacts at the Offsite Project MEI

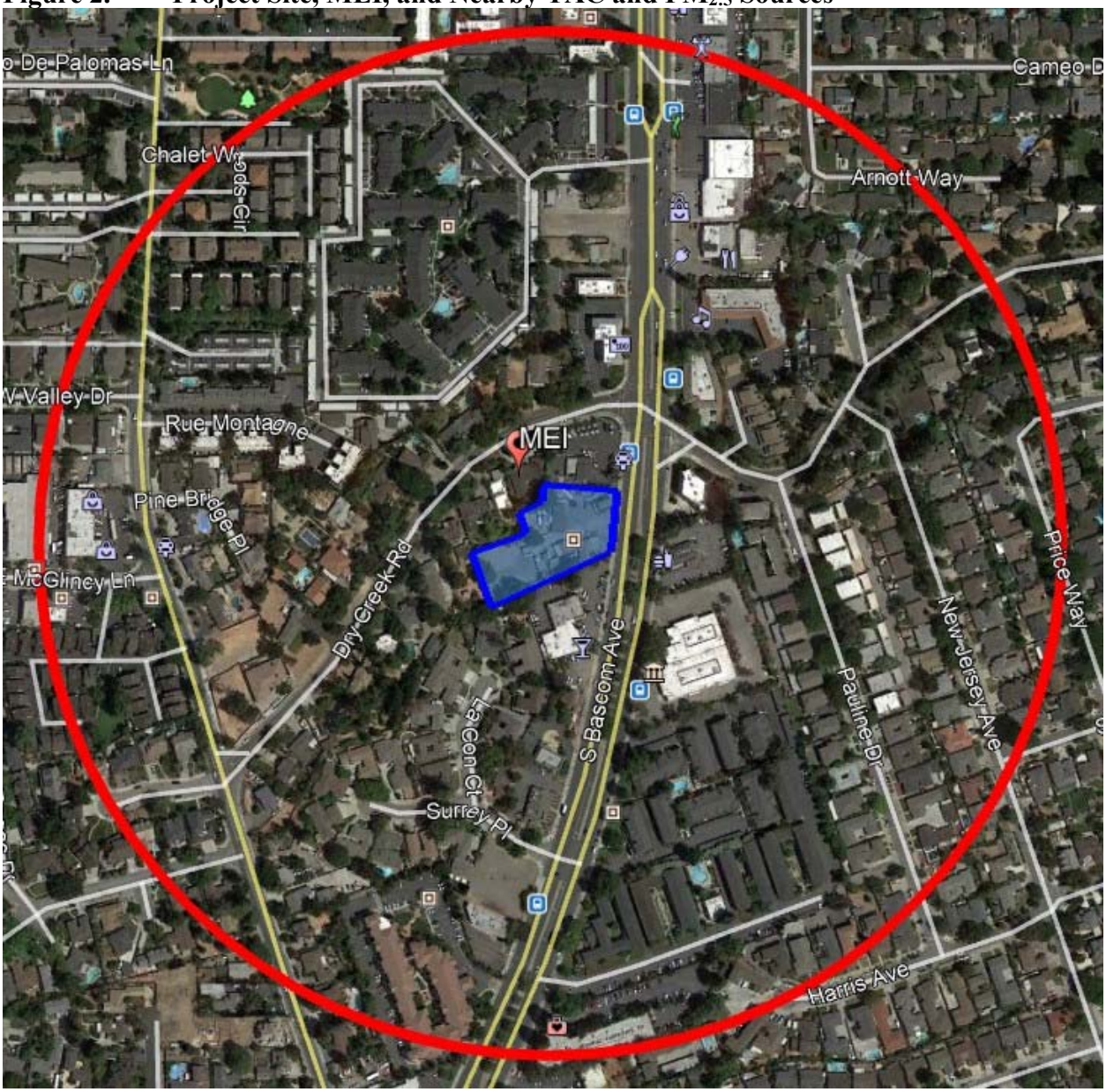
Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction (Years 0-2)	Unmitigated	**38.1 (infant-child)**	0.18	0.03
	Mitigated*	5.4 (infant-child)	0.03	<0.01
Project Operational - Generator (Years 3-30)		0.3 (child-adult)	0.02	0.01
Total/Maximum Project (Years 0-30)	Unmitigated	**38.4 (infant-child)**	0.18	0.03
	Mitigated*	5.5 (infant-child)	0.03	0.01
BAAQMD Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	Unmitigated	***Yes***	*No*	*No*
	Mitigated*	*No*	*No*	*No*

* Construction equipment engines with minimum Tier 3 DPF 3 Mitigation Measures.

Combined Impact of All TAC Sources on the Off-Site MEI

Community health risk assessments typically look at all substantial sources of TACs located within 1,000 feet of project site. These sources include highways, railroads, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicates that traffic on S. Bascom Avenue has an average daily traffic (ADT) of over 10,000 vehicles. All other roadways within the area are assumed to have an ADT less than 10,000 vehicles. No stationary sources were identified within the 1,000-foot influence area using the BAAQMD's stationary source stationary source website map and Google Earth map. Figure 2 shows the sources within 1,000 feet affecting the project site. Details of the modeling and community risk calculations are included in *Attachment 4.*

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



Local Roadways – S. Bascom Avenue

For local roadways, BAAQMD has provided the *Roadway Screening Analysis Calculator* to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Note this is a screening model and more refined modeling could be conducted if potentially significant impacts are identified. Two adjustments were made to the cancer risk predictions made by this calculator: (1) adjustment for latest vehicle emissions rates predicted using EMFAC2014 and (2) adjustment of cancer risk to reflect new OEHHA guidance (see *Attachment 1*).

The calculator uses EMFAC2011 emission rates for the year 2014. However, a new version of the emissions factor model, EMFAC2014 is available. This version predicts lower emission rates. An adjustment factor of 0.5 was developed by comparing emission rates of total organic gases (TOG) for running exhaust and running losses developed using EMFAC2011 for year 2014 and those from EMFAC2014 for 2018. The predicted cancer risk was then adjusted using a factor of 1.3744 to account for new OEHHA guidance. This factor was provided by BAAQMD for use with their CEQA screening tools that are used to predict cancer risk.[11]

The ADT on S. Bascom Avenue was estimated to be 15,700 vehicles. This estimate was based on the peak-hour traffic volumes included in the project's traffic analysis for background plus project conditions. The AM and PM peak-hour volumes were averaged and then multiplied by 10 to estimate the ADT.

The BAAQMD *Roadway Screening Analysis Calculator* for Santa Clara County was used for this roadway. S. Bascom Avenue was identified as a north-south roadway with the MEI located approximately 200 feet west of the roadway. Estimated risk values for the roadway upon the MEI is listed in Table 5. Note that BAAQMD has found that non-cancer hazards from all local roadways would be below a Hazard Index of 0.03.

Combined Community Health Risk at Off-site MEI

Table 5 reports both the project and cumulative community risk impacts at the sensitive receptors most affected by construction and operation (i.e. the MEI). Without mitigation, the project's community risk from project construction and operational activities would exceed the maximum cancer risk single-source significance threshold. The combined annual cancer risk, $PM_{2.5}$ concentration, and Hazard risk values, which includes unmitigated and mitigated, would not exceed their respective cumulative thresholds. With the incorporation of *Mitigation Measures AQ-1 and AQ-2*, the project construction's single-source and cumulative-source risks would no longer exceed the significance thresholds.

Table 5. Impacts from Combined Sources at Off-Site MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project (Construction and Operation)	Unmitigated	**38.1 (infant)**	0.18	0.03
	Mitigated	5.4 (infant)	0.03	<0.01
BAAQMD Single-Source Source Threshold		***>10.0***	***>0.3***	***>1.0***
S. Bascom Ave (north-south) at 200 feet west, ADT 15,700		2.0	0.06	<0.03
Combined Sources	Unmitigated	40.1 (infant)	0.24	<0.06
	Mitigated	7.4 (infant)	0.09	<0.04
BAAQMD Cumulative Source Threshold		***>100***	***>0.8***	***>10.0***
Exceed Cumulative Thresholds?	Unmitigated	*No*	*No*	*No*
	Mitigated	*No*	*No*	*No*

[11] Correspondence with Alison Kirk, BAAQMD, November 23, 2015.

Mitigation Measure AQ-2: **Selection of equipment during construction to minimize emissions. Such equipment selection would include the following:**

The project shall develop a plan demonstrating that the off-road equipment used onsite to construct the project would achieve a fleet-wide average 75-percent reduction in DPM exhaust emissions or greater. One feasible plan to achieve this reduction would include the following:

- All diesel-powered off-road equipment, larger than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 3 engines that include CARB-certified Level 3 Diesel Particulate Filters (DPF)[12] or equivalent. Alternatively, equipment that meets U.S. EPA Tier 4 standards for particulate matter or the use of equipment that includes electric or alternatively-fueled equipment (i.e., non-diesel) would meet this requirement.

Effectiveness of Mitigation Measure AQ-2

Implementation of *Mitigation Measure AQ-2* using Tier 3 engines with Level 3 DPFs would reduce on-site diesel exhaust emissions from construction equipment by 86-percent. With mitigation, the computed maximum increased lifetime residential cancer risk from construction at the MEI, assuming infant exposure, would be 5.4 in one million or less. The mitigated cancer risk would no longer exceed its respective significance threshold.

Operational Community Health Risk Impacts – New Project Residences

In addition to evaluating health impact from project construction, a health risk assessment was completed to assess the impact existing TAC sources would have on the new proposed sensitive receptors that that project would introduce. The same TAC sources identified above were used in this health risk assessment.[13]

Local Roadways – S. Bascom Avenue

The roadway analysis was done in the same manner for the new project sensitive receptors as described above for the MEI. The project sensitive receptors would be 20 feet west of S. Bascom Avenue. The results are listed in Table 6.

Combined Community Health Risk at Project Site

Community risk impacts from combined sources upon the project site sensitive receptors are reported in Table 6. As shown, the annual cancer risks, annual $PM_{2.5}$ concentrations, and Hazard Indexes are all below their respective single-source and cumulative significance thresholds.

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

[13] We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself "exacerbates" such impacts.

Table 6. Community Risk Impact to New Project Residences

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
S. Bascom Ave (north-south) at 20 feet west, ADT 15,700	<6.9*	0.21	<0.03
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>0.1***
Exceed Threshold?	*No*	*No*	*No*
Cumulative Total	6.9	0.21	<0.03
BAAQMD Cumulative Source Threshold	***>100***	***>0.8***	***>10.0***
Exceed Threshold?	*No*	*No*	*No*

* Note that BAAQMD tools predict cancer risk for lifetime exposures that include infant and child cancer risk assumptions. Project sensitive receptors would be adults that have a lower cancer risk based on the same concentration of exposure. Therefore, the risk would be less.

Greenhouse Gas Emissions

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species

could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Recent Regulatory Actions

Assembly Bill 32 (AB 32), California Global Warming Solutions Act (2006)

AB 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State's main strategies to reduce GHGs from business-as-usual emissions projected in 2020 back down to 1990 levels. Business-as-usual (BAU) is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO_2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO_2e. Thus, an estimated reduction of 80 MMT of CO_2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

Senate Bill 375, California's Regional Transportation and Land Use Planning Efforts (2008)

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan

planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

SB 350 Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increases the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

Executive Order EO-B-30-15 (2015) and SB 32 GHG Reduction Targets

In April 2015, Governor Brown signed Executive Order which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed SB 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan*. While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and

near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons CO_2e per capita (statewide) by 2030 and no more than 2 metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

GHG Emissions

The U.S. EPA reported that in 2017, total gross nationwide GHG emissions were 6,457 MMT. These emissions were lower than peak levels of 7,370 MMT that were emitted in 2008. Relative to 1990 levels, these emissions were CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.[14] In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017. The most recent Bay Area emission inventory was completed for the year 2011.[15] GHG emission in were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011.

City of San Jose Greenhouse Gas Reduction Strategy

The Greenhouse Gas Reduction Strategy (GHGRS) was a document prepared by the City of San José to help the City to quantify, reduce, and manage their GHG emissions.[16] The GHGRS was prepared alongside the *Envision San José 2040 General Plan Update* to ensure that the General Plan aligned with AB32. The City uses the following 'Plan-level' GHG significance threshold to reduce GHG emissions to meet the 2020 goal of AB32: 6.6 metric tons of CO_2 equivalent per service population per year (MT CO_2e / SP / year). Service population is defined as the number of residents plus the number of people working within San José. The City has also estimated an efficiency threshold of 3.04 MT CO_2e /SP for 2035. However, since this project would be operational post-2020, the 2020 efficiency threshold is not appropriate. This analysis uses an efficiency threshold for projects operational post-2020 that is more aggressive than the 2035 efficiency threshold proposed by the City of San José. Additionally, the GHGRS has several measures that would implemented, monitored, and enforced by the City. These policies and

[14] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Available at https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf accessed on Nov. 26, 2019.
[15] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.

[16] City of San José, 2011. *Greenhouse Gas Reduction Strategy for the City of San José*. June (updated December 2015). http://www.sanjoseca.gov/documentcenter/view/9388

measures are listed as attachments in the GHGRS. New development projects are subject to the greenhouse gas policies s listed in Attachment B and D of the GHGRS.

BAAQMD Significance Thresholds

The BAAQMD's CEQA Air Quality Guidelines do not use quantified thresholds for projects that are in a jurisdiction with a qualified GHG reductions plan (i.e., a Climate Action Plan). The plan has to address emissions associated with the period that the project would operate (e.g., beyond year 2020). For quantified emissions, the guidelines recommended a GHG threshold of 1,100 metric tons or 4.6 metric tons (MT) per capita. These thresholds were developed based on meeting the 2020 GHG targets set in the scoping plan that addressed AB 32. Development of the project would occur beyond 2020, so a threshold that addresses a future target is appropriate.

Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.6 MT CO_{2e}/year/service population and a bright-line threshold of 660 MT CO_{2e}/year based on the GHG reduction goals of EO B-30-15. The service population metric of 2.6 is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels.[17] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_{2e}/year threshold.

Impact 1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. CalEEMod output is included in *Attachment 2*.

Service Population Emissions

The project service population efficiency rate is based on the number of future residents and future employees. Based on provided project information, the number of future residents is anticipated to be 88 senior residents and there would be 75 full-time employees. The total future population at the project site would be 163 residents and employees.

[17] Association of Environmental Professionals, 2016. *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*. April.

Construction Emissions

GHG emissions associated with construction were computed to be 364 MT of CO_2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully-developed site under the proposed project. As shown in Table 7, the net annual emissions resulting from operation of the proposed project are predicted to be 227 MT of CO_2e for the year 2022 and 204 MT of CO_2e for the year 2030. The Service Population Emissions for the year 2022 would be 1.9 and 1.7 MT CO_2e/year/service population for the year 2030. The 2022 and 2030 emissions do not exceed the 2030 "bright-line" threshold of 660 MT of CO_2e/year or the "Substantial Progress" efficiency metric of 2.6 MT CO_2e/year/service population.

To be considered significant, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold. This project does not exceed the metric tons bright-line significance threshold nor the service population significance threshold.

Table 7. Annual Project GHG Emissions (CO_2e) in Metric Tons and Per Capita

Source Category	Existing Land Use in 2022	Existing Land Use in 2030	Proposed Project in 2022	Proposed Project in 2030
Area	<1	<1	4	4
Energy Consumption	24	24	94	94
Mobile	56	45	170	136
Solid Waste Generation	3	3	36	36
Water Usage	2	2	8	8
Total (MT CO_2e/year)	85	74	312	278
Net Emissions			227 MT CO_2e/year	204 MT CO_2e/year
Significance Threshold			***660 MT CO_2e/year***	
Service Population Emissions (MT CO_2e/year/service population)			1.9	1.7
Significance Threshold			***2.6 in 2030***	
Exceeds both thresholds?			*No*	*No*

Impact 2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan. For example, proposed buildings would be

constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures and water-efficient irrigation systems.

Additionally, the project would implement and comply with the greenhouse gas reduction policies found in the *Envisions San José 2040 General Plan Policy,* which are also found in GHGRS as Attachment B. The project is also subject to the GHG reduction strategies listed in the *Greenhouse Gas Reduction Strategy Implementation Tracking* (Attachment D) tool in the GHGRS. The project would implement and comply with all relevant GHG reduction measures as determined by the City.

Supporting Documentation

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

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant and GHG emissions. The operational output for existing uses and the year 2030 is also included in this attachment. Also included are any modeling assumptions.

Attachment 3 is the construction and operational health risk assessments. AERMOD dispersion modeling files for these assessments, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 4 includes the screening community risk calculations, modeling results, and health risk calculations from sources affecting the MEI and project.

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[18] These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.[19] This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.[20] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs are calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency and duration of exposure. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day). As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools and daycare facilities, BAAQMD recommends using the 95th percentile breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of

[18] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.
[19] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[20] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults, a 25-year exposure period is recommended by the BAAQMD.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity that would have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

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

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

Where:

CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

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

Where:

C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

The health risk parameters used in this evaluation are summarized as follows:

Parameter	*Exposure Type* →	Infant		Child		Adult
	Age Range →	3rd Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80th Percentile Rate		273	758	631	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	861	745	335
Inhalation Absorption Factor		1	1	1	1	1
Averaging Time (years)		70	70	70	70	70
Exposure Duration (years)		0.25	2	14	14	14
Exposure Frequency (days/year)		350	350	350	350	350
Age Sensitivity Factor		10	10	3	3	1
Fraction of Time at Home		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73

Non-Cancer Hazards

Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu g/m^3$).

Annual $PM_{2.5}$ Concentrations

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

Attachment 2: CalEEMod Modeling Inputs and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: 2375-2395 S. Bascom Avenue RCFE

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size: 79 units/ 88 Beds Dwelling Units; 1.23 total project acres disturbed

- 73000 s.f. residential
- ____ s.f. retail
- ____ s.f. office/commercial
- ____ s.f. other, specify:
- ____ s.f. parking garage; 45 spaces
- ____ s.f. parking lot; ____ spaces

Construction Hours: 7 am to 4 pm

Pile Driving? Y/N?

Project include GENERATOR OR FIRE PUMP on-site? Y/N? _YES___

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: ___280-kW / 375-hp_____

Fuel Type: ____Diesel_____

Location in project (Plans Desired if Available): In NE corner of underground parking level

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments
	Demolition	**Start Date:**	**7/1/2020**	**Total phase:**	**20**			**Overall Import/Export Volumes**
		End Date:	**7/28/2020**					
1	Concrete/Industrial Saws	81	0.73	8	20	8	160	**Demolition Volume**
	Excavators	158	0.38			0	0	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	247	0.4	8	20	8	160	(*or* total tons to be hauled)
3	Tractors/Loaders/Backhoes	97	0.37	8	20	8	480	6,030 square feet *or*
								_?_ Hauling volume (tons)
	Site Preperation	**Start Date:**	**7/29/2020**	**Total phase:**	**2**			Any pavement demolished and hauled? _?_ tons
		End Date:	**7/30/2020**					
1	Graders	187	0.41	8	2	8	16	
1	Rubber Tired Dozers	247	0.4	7	2	7	14	
1	Tractors/Loaders/Backhoes	97	0.37	8	2	8	16	
	Grading / Excavation	**Start Date:**	**7/31/2020**	**Total phase:**	**4**			
		End Date:	**8/5/2020**					**Soil Hauling Volume**
	Excavators	158	0.38			0	0	Export volume = 15,250 cubic yards?
1	Graders	187	0.41	6	4	6	24	Import volume = _?_ cubic yards?
1	Rubber Tired Dozers	247	0.4	6	4	6	24	
	Concrete/Industrial Saws	81	0.73			0	0	
1	Tractors/Loaders/Backhoes	97	0.37	7	4	7	28	
	Other Equipment?							
	Trenching/Foundation	**Start Date:**	**7/31/2020**	**Total phase:**	**4**			
		End Date:	**8/5/2020**					
1	Tractor/Loader/Backhoe	97	0.37	8	4	8	32	
1	Excavators	158	0.38	8	4	8	32	
	Other Equipment?							
	Building - Exterior	**Start Date:**	**8/6/2020**	**Total phase:**	**200**			**Cement Trucks? _?_ Total Round-Trips**
		End Date:	**5/12/2021**					
1	Cranes	231	0.29	6	200	6	1200	Electric? (Y/N) Otherwise assumed diesel
1	Forklifts	89	0.2	6	200	6	1200	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
1	Generator Sets	84	0.74	8	200	8	1600	Or temporary line power? (Y/N) ___
1	Tractors/Loaders/Backhoes	97	0.37	6	200	6	1200	
3	Welders	46	0.45	8	200	8	4800	
	Other Equipment?					0		
	Building - Interior/Architectural Coating	**Start Date:**	**5/13/2021**	**Total phase:**	**10**			
		End Date:	**5/26/2021**					
1	Air Compressors	78	0.48	6	10	6	60	
	Aerial Lift	62	0.31			0	0	
	Other Equipment?							
	Paving	**Start Date:**	**5/27/2021**	**Total phase:**	**10**			
		Start Date:	**6/9/2021**					
1	Cement and Mortar Mixers	9	0.56	6	10	6	60	
1	Pavers	130	0.42	6	10	6	60	**Asphalt? ___ cubic yards or ____ round trips?**
1	Paving Equipment	132	0.36	8	10	8	80	
1	Rollers	80	0.38	7	10	7	70	
1	Tractors/Loaders/Backhoes	97	0.37	8	10	8	80	
	Other Equipment?							

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horepower or load factor, as appropriate

Complete one sheet for each project component

Table 4
Project Trip Generation Estimates

Land Use	Size	Daily Trip Rate	Daily Trips	AM Peak Hour Trip Rate	AM Peak Hour Trips In	AM Peak Hour Trips Out	AM Peak Hour Trips Total	PM Peak Hour Trip Rate	PM Peak Hour Trips In	PM Peak Hour Trips Out	PM Peak Hour Trips Total
Proposed Use											
Assisted Living[1]	88 beds	2.60	229	0.19	11	6	17	0.26	9	14	23
Location-Based Vehicle Mode Share (9%)[2]			*(21)*		*(1)*	*(1)*	*(2)*		*(1)*	*(1)*	*(2)*
Project Subtotal:			**208**		**10**	**5**	**15**		**8**	**13**	**21**
Existing Use											
General Retail[3]			119		5	4	9		5	7	12
Location-Based Vehicle Mode Share (13%)[4]			*(15)*		*(1)*	*0*	*(1)*		*(1)*	*(1)*	*(2)*
Retail Pass-By External Trip Reduction[5]			*(18)*		*0*	*0*	*0*		*(1)*	*(2)*	*(3)*
Existing Retail Subtotal:			**86**		**4**	**4**	**8**		**3**	**4**	**7**
Net Project Trips:			**122**		**6**	**1**	**7**		**5**	**9**	**14**

Source: ITE Trip Generation Manual, 10th Edition, 2017.
1. Average trip rates (in trips per bed) for "Assisted Living" (ITE Land Use 254) are used.
2. A 9% reduction was applied based on the location-based vehicle mode share percentage outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for office development in an Urban Low-Transit area.
3. The AM and PM peak hour trips generated by the existing commercial uses to be removed were obtained from driveway counts conducted on October 2, 2019. Daily trips were calculated based on applying the relationship between the daily and PM peak hour ITE rates for "Shopping Center" (ITE Land Use 820).
4. A 13% reduction was applied based on the location-based vehicle mode share percentage outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for retail development in an Urban Low-Transit area.
5. The PM peak hour pass-by trip reduction percentage (34% for Shopping Center) is based on the ITE Trip Generation Handbook (Third Edition). There is no AM peak hour pass-by trip reduction. The daily pass-by trip reduction (17%) is calculated based on the average of the AM and PM pass-by trip reduction percentages.

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Existing AM and PM peak hour traffic volumes were obtained from new manual turning-movement counts conducted on October 8, 2019 (see Appendix A). The new count data have been reviewed and approved by City of San Jose Department of Transportation staff for use in this traffic study.

Background Traffic Volumes

Background traffic volumes are typically estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments typically is provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). However, ATI is not available for the study intersections because there are no approved projects near the site. Thus, background conditions are identical to existing conditions.

Background Plus Project Traffic Volumes

Project trips are added to background traffic volumes to obtain background plus project traffic volumes.

The Existing and Existing/Background Plus Project peak hour intersection volumes are shown on Figure 9.

2375-2395 S. Bascom Ave Senior Living, San Jose - Santa Clara County, Annual

2375-2395 S. Bascom Ave Senior Living, San Jose

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	45.00	Space	0.00	18,000.00	0
Congregate Care (Assisted Living)	79.00	Dwelling Unit	1.23	73,000.00	226

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 Rate = 290

Land Use - Provided Site Plan/Proj Descrip land uses

Construction Phase - Default construction schedule, Trenching added

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default Const Equip & hours

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trench equip added

Grading - provided info - grading = 15,250cy exported

Demolition - Exiting building demo = 6,030sf

Vehicle Trips - With reductions, Res = 2.63, 2.11, 2.34

Woodstoves - All gas no wood

Water And Wastewater - WTP treatment 100% aerobic

Stationary Sources - Emergency Generators and Fire Pumps - 1 Emergency generator, 280-kW / 375-hp, 50hr/year

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	6/9/2021	5/26/2021
tblConstructionPhase	PhaseEndDate	5/26/2021	6/9/2021
tblConstructionPhase	PhaseStartDate	5/27/2021	5/13/2021
tblConstructionPhase	PhaseStartDate	5/13/2021	5/27/2021
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	11.85	25.28
tblFireplaces	NumberWood	13.43	0.00
tblGrading	MaterialExported	0.00	15,250.00
tblLandUse	LandUseSquareFeet	79,000.00	73,000.00
tblLandUse	LotAcreage	0.41	0.00
tblLandUse	LotAcreage	4.94	1.23
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	375.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

tblVehicleTrips	ST_TR	2.20	2.11
tblVehicleTrips	SU_TR	2.44	2.34
tblVehicleTrips	WD_TR	2.74	2.63
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1563	1.4061	1.0414	2.6600e-003	0.0679	0.0578	0.1257	0.0217	0.0553	0.0770	0.0000	235.8750	235.8750	0.0297	0.0000	236.6175
2021	0.6191	0.7471	0.7456	1.4900e-003	0.0283	0.0350	0.0633	7.6000e-003	0.0337	0.0413	0.0000	126.4806	126.4806	0.0182	0.0000	126.9365
Maximum	**0.6191**	**1.4061**	**1.0414**	**2.6600e-003**	**0.0679**	**0.0578**	**0.1257**	**0.0217**	**0.0553**	**0.0770**	**0.0000**	**235.8750**	**235.8750**	**0.0297**	**0.0000**	**236.6175**

Mitigated Construction

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

Year	tons/yr										MT/yr					
2020	0.1563	1.4061	1.0414	2.6600e-003	0.0679	0.0578	0.1257	0.0217	0.0553	0.0770	0.0000	235.8748	235.8748	0.0297	0.0000	236.6174
2021	0.6191	0.7471	0.7456	1.4900e-003	0.0283	0.0350	0.0633	7.6000e-003	0.0337	0.0413	0.0000	126.4805	126.4805	0.0182	0.0000	126.9364
Maximum	**0.6191**	**1.4061**	**1.0414**	**2.6600e-003**	**0.0679**	**0.0578**	**0.1257**	**0.0217**	**0.0553**	**0.0770**	**0.0000**	**235.8748**	**235.8748**	**0.0297**	**0.0000**	**236.6174**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2020**	**9-30-2020**	0.9636	0.9636
2	**10-1-2020**	**12-31-2020**	0.6085	0.6085
3	**1-1-2021**	**3-31-2021**	0.5459	0.5459
4	**4-1-2021**	**6-30-2021**	0.8236	0.8236
		Highest	0.9636	0.9636

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3561	9.5000e-003	0.5888	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.9000e-004	6.0000e-005	4.1568
Energy	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	93.1977	93.1977	6.3800e-003	1.8400e-003	93.9061
Mobile	0.0461	0.1952	0.5353	1.8500e-003	0.1706	1.5700e-003	0.1722	0.0457	1.4700e-003	0.0471	0.0000	169.3899	169.3899	5.7200e-003	0.0000	169.5330
Stationary	0.0154	0.0430	0.0392	7.0000e-005		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.1400	7.1400	1.0000e-003	0.0000	7.1650
Waste						0.0000	0.0000		0.0000	0.0000	14.6336	0.0000	14.6336	0.8648	0.0000	36.2542

Water						0.0000	0.0000		0.0000	0.0000	1.8211	5.1576	6.9787	6.7800e-003	4.0700e-003	8.3602
Total	**0.4213**	**0.2792**	**1.1767**	**2.1700e-003**	**0.1706**	**9.8400e-003**	**0.1804**	**0.0457**	**9.7400e-003**	**0.0554**	**16.4547**	**279.0001**	**295.4548**	**0.8857**	**5.9700e-003**	**319.3753**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3561	9.5000e-003	0.5888	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.9000e-004	6.0000e-005	4.1568
Energy	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	93.1977	93.1977	6.3800e-003	1.8400e-003	93.9061
Mobile	0.0461	0.1952	0.5353	1.8500e-003	0.1706	1.5700e-003	0.1722	0.0457	1.4700e-003	0.0471	0.0000	169.3899	169.3899	5.7200e-003	0.0000	169.5330
Stationary	0.0154	0.0430	0.0392	7.0000e-005		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.1400	7.1400	1.0000e-003	0.0000	7.1650
Waste						0.0000	0.0000		0.0000	0.0000	14.6336	0.0000	14.6336	0.8648	0.0000	36.2542
Water						0.0000	0.0000		0.0000	0.0000	1.8211	5.1576	6.9787	6.7800e-003	4.0700e-003	8.3602
Total	**0.4213**	**0.2792**	**1.1767**	**2.1700e-003**	**0.1706**	**9.8400e-003**	**0.1804**	**0.0457**	**9.7400e-003**	**0.0554**	**16.4547**	**279.0001**	**295.4548**	**0.8857**	**5.9700e-003**	**319.3753**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	7/30/2020	5	2	

3	Grading	Grading	7/31/2020	8/5/2020	5	4	
4	Trenching	Trenching	7/31/2020	8/5/2020	5	4	
5	Building Construction	Building Construction	8/6/2020	5/12/2021	5	200	
6	Architectural Coating	Architectural Coating	5/13/2021	5/26/2021	5	10	
7	Paving	Paving	5/27/2021	6/9/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 147,825; Residential Outdoor: 49,275; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; 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	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	27.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,906.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	64.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9700e-003	0.0000	2.9700e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031

Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**2.9700e-003**	**0.0115**	**0.0145**	**4.5000e-004**	**0.0108**	**0.0112**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.9200e-003	8.0000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0297	1.0297	5.0000e-005	0.0000	1.0308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.2500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8842	0.8842	2.0000e-005	0.0000	0.8847
Total	**5.4000e-004**	**4.2300e-003**	**4.0500e-003**	**2.0000e-005**	**1.2600e-003**	**2.0000e-005**	**1.2800e-003**	**3.3000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.9139**	**1.9139**	**7.0000e-005**	**0.0000**	**1.9156**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9700e-003	0.0000	2.9700e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**2.9700e-003**	**0.0115**	**0.0145**	**4.5000e-004**	**0.0108**	**0.0112**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.9200e-003	8.0000e-004	1.0000e-005	2.3000e-004	1.0000e-005	2.4000e-004	6.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0297	1.0297	5.0000e-005	0.0000	1.0308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.1000e-004	3.2500e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8842	0.8842	2.0000e-005	0.0000	0.8847
Total	**5.4000e-004**	**4.2300e-003**	**4.0500e-003**	**2.0000e-005**	**1.2600e-003**	**2.0000e-005**	**1.2800e-003**	**3.3000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0000**	**1.9139**	**1.9139**	**7.0000e-005**	**0.0000**	**1.9156**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**5.8000e-003**	**8.2000e-004**	**6.6200e-003**	**2.9500e-003**	**7.6000e-004**	**3.7100e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0544	0.0544	0.0000	0.0000	0.0545
Total	**3.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0544**	**0.0544**	**0.0000**	**0.0000**	**0.0545**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**5.8000e-003**	**8.2000e-004**	**6.6200e-003**	**2.9500e-003**	**7.6000e-004**	**3.7100e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0544	0.0544	0.0000	0.0000	0.0545

Total	**3.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0544**	**0.0544**	**0.0000**	**0.0000**	**0.0545**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0107	0.0000	0.0107	5.1800e-003	0.0000	5.1800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**0.0107**	**1.3700e-003**	**0.0121**	**5.1800e-003**	**1.2600e-003**	**6.4400e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.9200e-003	0.2766	0.0566	7.5000e-004	0.0162	9.0000e-004	0.0171	4.4400e-003	8.6000e-004	5.3000e-003	0.0000	72.6861	72.6861	3.3300e-003	0.0000	72.7692
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1088	0.1088	0.0000	0.0000	0.1089
Total	**7.9700e-003**	**0.2766**	**0.0570**	**7.5000e-004**	**0.0163**	**9.0000e-004**	**0.0172**	**4.4700e-003**	**8.6000e-004**	**5.3300e-003**	**0.0000**	**72.7949**	**72.7949**	**3.3300e-003**	**0.0000**	**72.8781**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0107	0.0000	0.0107	5.1800e-003	0.0000	5.1800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**0.0107**	**1.3700e-003**	**0.0121**	**5.1800e-003**	**1.2600e-003**	**6.4400e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.9200e-003	0.2766	0.0566	7.5000e-004	0.0162	9.0000e-004	0.0171	4.4400e-003	8.6000e-004	5.3000e-003	0.0000	72.6861	72.6861	3.3300e-003	0.0000	72.7692
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1088	0.1088	0.0000	0.0000	0.1089
Total	**7.9700e-003**	**0.2766**	**0.0570**	**7.5000e-004**	**0.0163**	**9.0000e-004**	**0.0172**	**4.4700e-003**	**8.6000e-004**	**5.3300e-003**	**0.0000**	**72.7949**	**72.7949**	**3.3300e-003**	**0.0000**	**72.8781**

3.5 Trenching - 2020

Unmitigated Construction On-Site

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

Off-Road	9.1000e-004	9.0400e-003	0.0111	2.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	1.4554	1.4554	4.7000e-004	0.0000	1.4672
Total	**9.1000e-004**	**9.0400e-003**	**0.0111**	**2.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**1.4554**	**1.4554**	**4.7000e-004**	**0.0000**	**1.4672**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0680	0.0680	0.0000	0.0000	0.0681
Total	**3.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0680**	**0.0680**	**0.0000**	**0.0000**	**0.0681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1000e-004	9.0400e-003	0.0111	2.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	1.4554	1.4554	4.7000e-004	0.0000	1.4672
Total	**9.1000e-004**	**9.0400e-003**	**0.0111**	**2.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**1.4554**	**1.4554**	**4.7000e-004**	**0.0000**	**1.4672**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0680	0.0680	0.0000	0.0000	0.0681
Total	**3.0000e-005**	**2.0000e-005**	**2.5000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0680**	**0.0680**	**0.0000**	**0.0000**	**0.0681**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.7838	0.6990	1.1700e-003		0.0422	0.0422		0.0408	0.0408	0.0000	96.2173	96.2173	0.0179	0.0000	96.6639
Total	**0.1076**	**0.7838**	**0.6990**	**1.1700e-003**		**0.0422**	**0.0422**		**0.0408**	**0.0408**	**0.0000**	**96.2173**	**96.2173**	**0.0179**	**0.0000**	**96.6639**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0664	0.0177	1.6000e-004	3.8400e-003	3.3000e-004	4.1600e-003	1.1100e-003	3.1000e-004	1.4200e-003	0.0000	15.2421	15.2421	7.0000e-004	0.0000	15.2596
Worker	0.0113	8.1000e-003	0.0849	2.6000e-004	0.0269	1.7000e-004	0.0271	7.1500e-003	1.6000e-004	7.3100e-003	0.0000	23.0707	23.0707	5.7000e-004	0.0000	23.0848
Total	**0.0136**	**0.0745**	**0.1026**	**4.2000e-004**	**0.0307**	**5.0000e-004**	**0.0312**	**8.2600e-003**	**4.7000e-004**	**8.7300e-003**	**0.0000**	**38.3128**	**38.3128**	**1.2700e-003**	**0.0000**	**38.3444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.7838	0.6990	1.1700e-003		0.0422	0.0422		0.0408	0.0408	0.0000	96.2172	96.2172	0.0179	0.0000	96.6638
Total	**0.1076**	**0.7838**	**0.6990**	**1.1700e-003**		**0.0422**	**0.0422**		**0.0408**	**0.0408**	**0.0000**	**96.2172**	**96.2172**	**0.0179**	**0.0000**	**96.6638**

Mitigated Construction Off-Site

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

Vendor	2.3100e-003	0.0664	0.0177	1.6000e-004	3.8400e-003	3.3000e-004	4.1600e-003	1.1100e-003	3.1000e-004	1.4200e-003	0.0000	15.2421	15.2421	7.0000e-004	0.0000	15.2596
Worker	0.0113	8.1000e-003	0.0849	2.6000e-004	0.0269	1.7000e-004	0.0271	7.1500e-003	1.6000e-004	7.3100e-003	0.0000	23.0707	23.0707	5.7000e-004	0.0000	23.0848
Total	**0.0136**	**0.0745**	**0.1026**	**4.2000e-004**	**0.0307**	**5.0000e-004**	**0.0312**	**8.2600e-003**	**4.7000e-004**	**8.7300e-003**	**0.0000**	**38.3128**	**38.3128**	**1.2700e-003**	**0.0000**	**38.3444**

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	tons/yr										MT/yr					
Off-Road	0.0852	0.6409	0.6063	1.0400e-003		0.0322	0.0322		0.0311	0.0311	0.0000	85.3274	85.3274	0.0152	0.0000	85.7082
Total	**0.0852**	**0.6409**	**0.6063**	**1.0400e-003**		**0.0322**	**0.0322**		**0.0311**	**0.0311**	**0.0000**	**85.3274**	**85.3274**	**0.0152**	**0.0000**	**85.7082**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6900e-003	0.0531	0.0141	1.4000e-004	3.4000e-003	1.2000e-004	3.5200e-003	9.8000e-004	1.1000e-004	1.1000e-003	0.0000	13.3918	13.3918	5.8000e-004	0.0000	13.4064
Worker	9.2700e-003	6.4200e-003	0.0688	2.2000e-004	0.0239	1.5000e-004	0.0240	6.3400e-003	1.4000e-004	6.4800e-003	0.0000	19.7488	19.7488	4.5000e-004	0.0000	19.7600
Total	**0.0110**	**0.0596**	**0.0830**	**3.6000e-004**	**0.0273**	**2.7000e-004**	**0.0275**	**7.3200e-003**	**2.5000e-004**	**7.5800e-003**	**0.0000**	**33.1406**	**33.1406**	**1.0300e-003**	**0.0000**	**33.1664**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0852	0.6409	0.6063	1.0400e-003		0.0322	0.0322		0.0311	0.0311	0.0000	85.3273	85.3273	0.0152	0.0000	85.7081
Total	**0.0852**	**0.6409**	**0.6063**	**1.0400e-003**		**0.0322**	**0.0322**		**0.0311**	**0.0311**	**0.0000**	**85.3273**	**85.3273**	**0.0152**	**0.0000**	**85.7081**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6900e-003	0.0531	0.0141	1.4000e-004	3.4000e-003	1.2000e-004	3.5200e-003	9.8000e-004	1.1000e-004	1.1000e-003	0.0000	13.3918	13.3918	5.8000e-004	0.0000	13.4064
Worker	9.2700e-003	6.4200e-003	0.0688	2.2000e-004	0.0239	1.5000e-004	0.0240	6.3400e-003	1.4000e-004	6.4800e-003	0.0000	19.7488	19.7488	4.5000e-004	0.0000	19.7600
Total	**0.0110**	**0.0596**	**0.0830**	**3.6000e-004**	**0.0273**	**2.7000e-004**	**0.0275**	**7.3200e-003**	**2.5000e-004**	**7.5800e-003**	**0.0000**	**33.1406**	**33.1406**	**1.0300e-003**	**0.0000**	**33.1664**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.5187**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4900e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4268	0.4268	1.0000e-005	0.0000	0.4270
Total	**2.0000e-004**	**1.4000e-004**	**1.4900e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4268**	**0.4268**	**1.0000e-005**	**0.0000**	**0.4270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.5187**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4900e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4268	0.4268	1.0000e-005	0.0000	0.4270
Total	**2.0000e-004**	**1.4000e-004**	**1.4900e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4268**	**0.4268**	**1.0000e-005**	**0.0000**	**0.4270**

3.8 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	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8700e-003**	**0.0387**	**0.0443**	**7.0000e-005**		**2.0800e-003**	**2.0800e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**5.8825**	**5.8825**	**1.8600e-003**	**0.0000**	**5.9291**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4900e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4268	0.4268	1.0000e-005	0.0000	0.4270
Total	**2.0000e-004**	**1.4000e-004**	**1.4900e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4268**	**0.4268**	**1.0000e-005**	**0.0000**	**0.4270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8700e-003**	**0.0387**	**0.0443**	**7.0000e-005**		**2.0800e-003**	**2.0800e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**5.8825**	**5.8825**	**1.8600e-003**	**0.0000**	**5.9291**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4900e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4268	0.4268	1.0000e-005	0.0000	0.4270
Total	**2.0000e-004**	**1.4000e-004**	**1.4900e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4268**	**0.4268**	**1.0000e-005**	**0.0000**	**0.4270**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0461	0.1952	0.5353	1.8500e-003	0.1706	1.5700e-003	0.1722	0.0457	1.4700e-003	0.0471	0.0000	169.3899	169.3899	5.7200e-003	0.0000	169.5330
Unmitigated	0.0461	0.1952	0.5353	1.8500e-003	0.1706	1.5700e-003	0.1722	0.0457	1.4700e-003	0.0471	0.0000	169.3899	169.3899	5.7200e-003	0.0000	169.5330

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	207.77	166.69	184.86	458,754	458,754
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	207.77	166.69	184.86	458,754	458,754

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking with Elevator	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.7760	56.7760	5.6800e-003	1.1700e-003	57.2680
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.7760	56.7760	5.6800e-003	1.1700e-003	57.2680
NaturalGas Mitigated	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381
NaturalGas Unmitigated	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	682517	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381
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	0.0000
Total		**3.6800e-003**	**0.0315**	**0.0134**	**2.0000e-004**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**36.4217**	**36.4217**	**7.0000e-004**	**6.7000e-004**	**36.6381**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	682517	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381
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	0.0000
Total		**3.6800e-003**	**0.0315**	**0.0134**	**2.0000e-004**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**36.4217**	**36.4217**	**7.0000e-004**	**6.7000e-004**	**36.6381**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	326140	42.9010	4.2900e-003	8.9000e-004	43.2728

Enclosed Parking with Elevator	105480	13.8750	1.3900e-003	2.9000e-004	13.9953
Total		**56.7760**	**5.6800e-003**	**1.1800e-003**	**57.2680**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	326140	42.9010	4.2900e-003	8.9000e-004	43.2728
Enclosed Parking with Elevator	105480	13.8750	1.3900e-003	2.9000e-004	13.9953
Total		**56.7760**	**5.6800e-003**	**1.1800e-003**	**57.2680**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3561	9.5000e-003	0.5888	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.9000e-004	6.0000e-005	4.1568
Unmitigated	0.3561	9.5000e-003	0.5888	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.9000e-004	6.0000e-005	4.1568

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0518					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7300e-003	1.1600e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1559	3.1559	6.0000e-005	6.0000e-005	3.1747
Landscaping	0.0178	6.7800e-003	0.5876	3.0000e-005		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	0.9590	0.9590	9.3000e-004	0.0000	0.9821
Total	**0.3561**	**9.5100e-003**	**0.5888**	**5.0000e-005**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**4.1149**	**4.1149**	**9.9000e-004**	**6.0000e-005**	**4.1568**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0518					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7300e-003	1.1600e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1559	3.1559	6.0000e-005	6.0000e-005	3.1747
Landscaping	0.0178	6.7800e-003	0.5876	3.0000e-005		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	0.9590	0.9590	9.3000e-004	0.0000	0.9821
Total	**0.3561**	**9.5100e-003**	**0.5888**	**5.0000e-005**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**4.1149**	**4.1149**	**9.9000e-004**	**6.0000e-005**	**4.1568**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9787	6.7800e-003	4.0700e-003	8.3602
Unmitigated	6.9787	6.7800e-003	4.0700e-003	8.3602

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.14717 / 3.24495	6.9787	6.7800e-003	4.0700e-003	8.3602
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.9787**	**6.7800e-003**	**4.0700e-003**	**8.3602**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.14717 / 3.24495	6.9787	6.7800e-003	4.0700e-003	8.3602
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.9787**	**6.7800e-003**	**4.0700e-003**	**8.3602**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.6336	0.8648	0.0000	36.2542
Unmitigated	14.6336	0.8648	0.0000	36.2542

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Congregate Care (Assisted Living)	72.09	14.6336	0.8648	0.0000	36.2542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**14.6336**	**0.8648**	**0.0000**	**36.2542**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	72.09	14.6336	0.8648	0.0000	36.2542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**14.6336**	**0.8648**	**0.0000**	**36.2542**

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
Emergency Generator	1	0	50	375	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0154	0.0430	0.0392	7.0000e-005		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.1400	7.1400	1.0000e-003	0.0000	7.1650
Total	**0.0154**	**0.0430**	**0.0392**	**7.0000e-005**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**7.1400**	**7.1400**	**1.0000e-003**	**0.0000**	**7.1650**

11.0 Vegetation

2375-2395 S. Bascom Ave Senior Living, San Jose - Existing - Santa Clara County, Annual

2375-2395 S. Bascom Ave Senior Living, San Jose - Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	6.03	1000sqft	0.14	6,030.00	0
Parking Lot	1.09	Acre	1.09	47,480.40	0

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided existing land uses

Construction Phase - existing - no construction

Off-road Equipment - existing - no construction

Grading - existing - no construction

Demolition -

Trips and VMT -

Vehicle Trips - with reduction, retail = 17.25, 16.36, 7.95

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/1/2020
tblConstructionPhase	PhaseStartDate	7/29/2020	7/1/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	42.04	16.36
tblVehicleTrips	SU_TR	20.43	7.95
tblVehicleTrips	WD_TR	44.32	17.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	24.3494	24.3494	1.0800e-003	2.3000e-004	24.4463
Mobile	0.0196	0.0768	0.1938	6.1000e-004	0.0545	5.4000e-004	0.0551	0.0146	5.0000e-004	0.0151	0.0000	56.0588	56.0588	2.0800e-003	0.0000	56.1107
Waste						0.0000	0.0000		0.0000	0.0000	1.2849	0.0000	1.2849	0.0759	0.0000	3.1834

Water						0.0000	0.0000		0.0000	0.0000	0.1417	0.9818	1.1235	0.0146	3.5000e-004	1.5937
Total	**0.0505**	**0.0775**	**0.1944**	**6.1000e-004**	**0.0545**	**5.9000e-004**	**0.0551**	**0.0146**	**5.5000e-004**	**0.0152**	**1.4266**	**81.3901**	**82.8167**	**0.0937**	**5.8000e-004**	**85.3342**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	24.3494	24.3494	1.0800e-003	2.3000e-004	24.4463
Mobile	0.0196	0.0768	0.1938	6.1000e-004	0.0545	5.4000e-004	0.0551	0.0146	5.0000e-004	0.0151	0.0000	56.0588	56.0588	2.0800e-003	0.0000	56.1107
Waste						0.0000	0.0000		0.0000	0.0000	1.2849	0.0000	1.2849	0.0759	0.0000	3.1834
Water						0.0000	0.0000		0.0000	0.0000	0.1417	0.9818	1.1235	0.0146	3.5000e-004	1.5937
Total	**0.0505**	**0.0775**	**0.1944**	**6.1000e-004**	**0.0545**	**5.9000e-004**	**0.0551**	**0.0146**	**5.5000e-004**	**0.0152**	**1.4266**	**81.3901**	**82.8167**	**0.0937**	**5.8000e-004**	**85.3342**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0196	0.0768	0.1938	6.1000e-004	0.0545	5.4000e-004	0.0551	0.0146	5.0000e-004	0.0151	0.0000	56.0588	56.0588	2.0800e-003	0.0000	56.1107
Unmitigated	0.0196	0.0768	0.1938	6.1000e-004	0.0545	5.4000e-004	0.0551	0.0146	5.0000e-004	0.0151	0.0000	56.0588	56.0588	2.0800e-003	0.0000	56.1107

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	104.02	98.65	47.94	146,672	146,672
Total	104.02	98.65	47.94	146,672	146,672

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.5868	23.5868	1.0700e-003	2.2000e-004	23.6792
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.5868	23.5868	1.0700e-003	2.2000e-004	23.6792
NaturalGas Mitigated	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672
NaturalGas Unmitigated	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	14291.1	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672
Total		**8.0000e-005**	**7.0000e-004**	**5.9000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.7626**	**0.7626**	**1.0000e-005**	**1.0000e-005**	**0.7672**

Mitigated

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

Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	14291.1	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672
Total		**8.0000e-005**	**7.0000e-004**	**5.9000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.7626**	**0.7626**	**1.0000e-005**	**1.0000e-005**	**0.7672**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	16618.1	4.8344	2.2000e-004	5.0000e-005	4.8534
Strip Mall	64460.7	18.7524	8.5000e-004	1.8000e-004	18.8258
Total		**23.5868**	**1.0700e-003**	**2.3000e-004**	**23.6792**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	16618.1	4.8344	2.2000e-004	5.0000e-005	4.8534
Strip Mall	64460.7	18.7524	8.5000e-004	1.8000e-004	18.8258
Total		**23.5868**	**1.0700e-003**	**2.3000e-004**	**23.6792**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Unmitigated	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**0.0308**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**0.0308**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1235	0.0146	3.5000e-004	1.5937
Unmitigated	1.1235	0.0146	3.5000e-004	1.5937

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.446657 / 0.273758	1.1235	0.0146	3.5000e-004	1.5937
Total		**1.1235**	**0.0146**	**3.5000e-004**	**1.5937**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.446657 / 0.273758	1.1235	0.0146	3.5000e-004	1.5937
Total		**1.1235**	**0.0146**	**3.5000e-004**	**1.5937**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	1.2849	0.0759	0.0000	3.1834
Unmitigated	1.2849	0.0759	0.0000	3.1834

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.33	1.2849	0.0759	0.0000	3.1834
Total		**1.2849**	**0.0759**	**0.0000**	**3.1834**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.33	1.2849	0.0759	0.0000	3.1834
Total		**1.2849**	**0.0759**	**0.0000**	**3.1834**

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

2375-2395 S. Bascom Ave Senior Living, San Jose - Santa Clara County, Annual

2375-2395 S. Bascom Ave Senior Living, San Jose - Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	45.00	Space	0.00	18,000.00	0
Congregate Care (Assisted Living)	79.00	Dwelling Unit	1.23	73,000.00	226

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 Rate = 290

Land Use - Provided Site Plan/Proj Descrip land uses

Construction Phase - Default construction schedule, Trenching added

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default Const Equip & hours

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trench equip added

Grading - provided info - grading = 15,250cy exported

Demolition - Exiting building demo = 6,030sf

Vehicle Trips - With reductions, Res = 2.63, 2.11, 2.34

Woodstoves - All gas no wood

Water And Wastewater - WTP treatment 100% aerobic

Stationary Sources - Emergency Generators and Fire Pumps - 1 Emergency generator, 280-kW / 375-hp, 50hr/year

Trips and VMT - 1 mile nearby TAC

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

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	PhaseEndDate	6/9/2021	5/26/2021
tblConstructionPhase	PhaseEndDate	5/26/2021	6/9/2021
tblConstructionPhase	PhaseStartDate	5/27/2021	5/13/2021
tblConstructionPhase	PhaseStartDate	5/13/2021	5/27/2021
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	11.85	25.28

tblFireplaces	NumberWood	13.43	0.00
tblGrading	MaterialExported	0.00	15,250.00
tblLandUse	LandUseSquareFeet	79,000.00	73,000.00
tblLandUse	LotAcreage	0.41	0.00
tblLandUse	LotAcreage	4.94	1.23
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	375.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00

tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblVehicleTrips	ST_TR	2.20	2.11
tblVehicleTrips	SU_TR	2.44	2.34
tblVehicleTrips	WD_TR	2.74	2.63
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1413	1.1913	0.9277	1.6800e-003	0.0235	0.0566	0.0801	9.6800e-003	0.0542	0.0639	0.0000	142.8558	142.8558	0.0270	0.0000	143.5297
2021	0.6118	0.7215	0.6870	1.1900e-003	2.8100e-003	0.0348	0.0376	7.6000e-004	0.0335	0.0343	0.0000	99.0625	99.0625	0.0177	0.0000	99.5041
Maximum	**0.6118**	**1.1913**	**0.9277**	**1.6800e-003**	**0.0235**	**0.0566**	**0.0801**	**9.6800e-003**	**0.0542**	**0.0639**	**0.0000**	**142.8558**	**142.8558**	**0.0270**	**0.0000**	**143.5297**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0482	0.9322	0.9575	1.6800e-003	0.0128	7.3100e-003	0.0201	3.0300e-003	7.3000e-003	0.0103	0.0000	142.8557	142.8557	0.0270	0.0000	143.5296
2021	0.5537	0.6419	0.7193	1.1900e-003	2.8100e-003	5.5800e-003	8.3900e-003	7.6000e-004	5.5700e-003	6.3400e-003	0.0000	99.0624	99.0624	0.0177	0.0000	99.5040
Maximum	**0.5537**	**0.9322**	**0.9575**	**1.6800e-003**	**0.0128**	**7.3100e-003**	**0.0201**	**3.0300e-003**	**7.3000e-003**	**0.0103**	**0.0000**	**142.8557**	**142.8557**	**0.0270**	**0.0000**	**143.5296**

	ROG	NOx	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	**20.07**	**17.71**	**-3.84**	**0.00**	**40.70**	**85.89**	**75.80**	**63.70**	**85.32**	**83.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-1-2020**	**9-30-2020**	0.7551	0.5401
2	**10-1-2020**	**12-31-2020**	0.5807	0.4459
3	**1-1-2021**	**3-31-2021**	0.5224	0.4346
4	**4-1-2021**	**6-30-2021**	0.8133	0.7629
		Highest	0.8133	0.7629

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	7/1/2020	7/28/2020	5	20	
2	Site Preparation	Site Preparation	7/29/2020	7/30/2020	5	2	
3	Grading	Grading	7/31/2020	8/5/2020	5	4	

4	Trenching	Trenching	7/31/2020	8/5/2020	5	4	
5	Building Construction	Building Construction	8/6/2020	5/12/2021	5	200	
6	Architectural Coating	Architectural Coating	5/13/2021	5/26/2021	5	10	
7	Paving	Paving	5/27/2021	6/9/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 147,825; Residential Outdoor: 49,275; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; 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	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56

Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	27.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,906.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	64.00	11.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					2.9700e-003	0.0000	2.9700e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**	**2.9700e-003**	**0.0115**	**0.0145**	**4.5000e-004**	**0.0108**	**0.0112**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.3900e-003	2.3000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1753	0.1753	2.0000e-005	0.0000	0.1758
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	7.0000e-005	8.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1057	0.1057	0.0000	0.0000	0.1058
Total	**1.7000e-004**	**1.4600e-003**	**1.0800e-003**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.2811**	**0.2811**	**2.0000e-005**	**0.0000**	**0.2816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3400e-003	0.0000	1.3400e-003	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6200e-003	0.1210	0.1542	2.4000e-004		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030

Total	**5.6200e-003**	**0.1210**	**0.1542**	**2.4000e-004**	**1.3400e-003**	**1.0800e-003**	**2.4200e-003**	**1.0000e-004**	**1.0800e-003**	**1.1800e-003**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.3900e-003	2.3000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.1753	0.1753	2.0000e-005	0.0000	0.1758
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	7.0000e-005	8.5000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1057	0.1057	0.0000	0.0000	0.1058
Total	**1.7000e-004**	**1.4600e-003**	**1.0800e-003**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.2811**	**0.2811**	**2.0000e-005**	**0.0000**	**0.2816**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**5.8000e-003**	**8.2000e-004**	**6.6200e-003**	**2.9500e-003**	**7.6000e-004**	**3.7100e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.5100e-003	6.5100e-003	0.0000	0.0000	6.5100e-003
Total	**1.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.5100e-003**	**6.5100e-003**	**0.0000**	**0.0000**	**6.5100e-003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6100e-003	0.0000	2.6100e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	8.4100e-003	9.8200e-003	2.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**4.2000e-004**	**8.4100e-003**	**9.8200e-003**	**2.0000e-005**	**2.6100e-003**	**6.0000e-005**	**2.6700e-003**	**6.6000e-004**	**6.0000e-005**	**7.2000e-004**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	6.5100e-003	6.5100e-003	0.0000	0.0000	6.5100e-003
Total	**1.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.5100e-003**	**6.5100e-003**	**0.0000**	**0.0000**	**6.5100e-003**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0107	0.0000	0.0107	5.1800e-003	0.0000	5.1800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**0.0107**	**1.3700e-003**	**0.0121**	**5.1800e-003**	**1.2600e-003**	**6.4400e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0700e-003	0.0983	0.0161	1.3000e-004	8.3000e-004	9.0000e-005	9.2000e-004	2.3000e-004	9.0000e-005	3.2000e-004	0.0000	12.3776	12.3776	1.3200e-003	0.0000	12.4105
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0130	0.0130	0.0000	0.0000	0.0130

Total	**2.0900e-003**	**0.0983**	**0.0162**	**1.3000e-004**	**8.4000e-004**	**9.0000e-005**	**9.3000e-004**	**2.3000e-004**	**9.0000e-005**	**3.2000e-004**	**0.0000**	**12.3906**	**12.3906**	**1.3200e-003**	**0.0000**	**12.4235**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8100e-003	0.0000	4.8100e-003	1.1700e-003	0.0000	1.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9000e-004	0.0138	0.0162	3.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**6.9000e-004**	**0.0138**	**0.0162**	**3.0000e-005**	**4.8100e-003**	**9.0000e-005**	**4.9000e-003**	**1.1700e-003**	**9.0000e-005**	**1.2600e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0700e-003	0.0983	0.0161	1.3000e-004	8.3000e-004	9.0000e-005	9.2000e-004	2.3000e-004	9.0000e-005	3.2000e-004	0.0000	12.3776	12.3776	1.3200e-003	0.0000	12.4105
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0130	0.0130	0.0000	0.0000	0.0130
Total	**2.0900e-003**	**0.0983**	**0.0162**	**1.3000e-004**	**8.4000e-004**	**9.0000e-005**	**9.3000e-004**	**2.3000e-004**	**9.0000e-005**	**3.2000e-004**	**0.0000**	**12.3906**	**12.3906**	**1.3200e-003**	**0.0000**	**12.4235**

3.5 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1000e-004	9.0400e-003	0.0111	2.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	1.4554	1.4554	4.7000e-004	0.0000	1.4672
Total	**9.1000e-004**	**9.0400e-003**	**0.0111**	**2.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**1.4554**	**1.4554**	**4.7000e-004**	**0.0000**	**1.4672**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.1300e-003	8.1300e-003	0.0000	0.0000	8.1400e-003
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.1300e-003**	**8.1300e-003**	**0.0000**	**0.0000**	**8.1400e-003**

Mitigated Construction On-Site

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

Off-Road	4.1000e-004	8.3900e-003	0.0125	2.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.4554	1.4554	4.7000e-004	0.0000	1.4672
Total	**4.1000e-004**	**8.3900e-003**	**0.0125**	**2.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**1.4554**	**1.4554**	**4.7000e-004**	**0.0000**	**1.4672**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	8.1300e-003	8.1300e-003	0.0000	0.0000	8.1400e-003
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.1300e-003**	**8.1300e-003**	**0.0000**	**0.0000**	**8.1400e-003**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1076	0.7838	0.6990	1.1700e-003		0.0422	0.0422		0.0408	0.0408	0.0000	96.2173	96.2173	0.0179	0.0000	96.6639
Total	**0.1076**	**0.7838**	**0.6990**	**1.1700e-003**		**0.0422**	**0.0422**		**0.0408**	**0.0408**	**0.0000**	**96.2173**	**96.2173**	**0.0179**	**0.0000**	**96.6639**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e-003	0.0390	0.0108	5.0000e-005	5.4000e-004	6.0000e-005	6.0000e-004	1.6000e-004	6.0000e-005	2.2000e-004	0.0000	4.6802	4.6802	4.6000e-004	0.0000	4.6916
Worker	3.7600e-003	1.7200e-003	0.0222	3.0000e-005	2.5200e-003	3.0000e-005	2.5600e-003	6.7000e-004	3.0000e-005	7.1000e-004	0.0000	2.7584	2.7584	1.2000e-004	0.0000	2.7614
Total	**4.8600e-003**	**0.0407**	**0.0331**	**8.0000e-005**	**3.0600e-003**	**9.0000e-005**	**3.1600e-003**	**8.3000e-004**	**9.0000e-005**	**9.3000e-004**	**0.0000**	**7.4386**	**7.4386**	**5.8000e-004**	**0.0000**	**7.4530**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0340	0.6401	0.7144	1.1700e-003		5.8200e-003	5.8200e-003		5.8200e-003	5.8200e-003	0.0000	96.2172	96.2172	0.0179	0.0000	96.6638
Total	**0.0340**	**0.6401**	**0.7144**	**1.1700e-003**		**5.8200e-003**	**5.8200e-003**		**5.8200e-003**	**5.8200e-003**	**0.0000**	**96.2172**	**96.2172**	**0.0179**	**0.0000**	**96.6638**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e-003	0.0390	0.0108	5.0000e-005	5.4000e-004	6.0000e-005	6.0000e-004	1.6000e-004	6.0000e-005	2.2000e-004	0.0000	4.6802	4.6802	4.6000e-004	0.0000	4.6916
Worker	3.7600e-003	1.7200e-003	0.0222	3.0000e-005	2.5200e-003	3.0000e-005	2.5600e-003	6.7000e-004	3.0000e-005	7.1000e-004	0.0000	2.7584	2.7584	1.2000e-004	0.0000	2.7614
Total	**4.8600e-003**	**0.0407**	**0.0331**	**8.0000e-005**	**3.0600e-003**	**9.0000e-005**	**3.1600e-003**	**8.3000e-004**	**9.0000e-005**	**9.3000e-004**	**0.0000**	**7.4386**	**7.4386**	**5.8000e-004**	**0.0000**	**7.4530**

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	tons/yr										MT/yr					
Off-Road	0.0852	0.6409	0.6063	1.0400e-003		0.0322	0.0322		0.0311	0.0311	0.0000	85.3274	85.3274	0.0152	0.0000	85.7082
Total	**0.0852**	**0.6409**	**0.6063**	**1.0400e-003**		**0.0322**	**0.0322**		**0.0311**	**0.0311**	**0.0000**	**85.3274**	**85.3274**	**0.0152**	**0.0000**	**85.7082**

Unmitigated Construction Off-Site

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

Vendor	8.7000e-004	0.0329	8.8500e-003	4.0000e-005	4.8000e-004	3.0000e-005	5.1000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	4.1108	4.1108	3.8000e-004	0.0000	4.1203
Worker	3.0400e-003	1.3400e-003	0.0178	3.0000e-005	2.2400e-003	3.0000e-005	2.2700e-003	6.0000e-004	3.0000e-005	6.3000e-004	0.0000	2.3631	2.3631	9.0000e-005	0.0000	2.3654
Total	**3.9100e-003**	**0.0342**	**0.0266**	**7.0000e-005**	**2.7200e-003**	**6.0000e-005**	**2.7800e-003**	**7.4000e-004**	**6.0000e-005**	**8.0000e-004**	**0.0000**	**6.4739**	**6.4739**	**4.7000e-004**	**0.0000**	**6.4857**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0301	0.5676	0.6335	1.0400e-003		5.1600e-003	5.1600e-003		5.1600e-003	5.1600e-003	0.0000	85.3273	85.3273	0.0152	0.0000	85.7081
Total	**0.0301**	**0.5676**	**0.6335**	**1.0400e-003**		**5.1600e-003**	**5.1600e-003**		**5.1600e-003**	**5.1600e-003**	**0.0000**	**85.3273**	**85.3273**	**0.0152**	**0.0000**	**85.7081**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7000e-004	0.0329	8.8500e-003	4.0000e-005	4.8000e-004	3.0000e-005	5.1000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	4.1108	4.1108	3.8000e-004	0.0000	4.1203
Worker	3.0400e-003	1.3400e-003	0.0178	3.0000e-005	2.2400e-003	3.0000e-005	2.2700e-003	6.0000e-004	3.0000e-005	6.3000e-004	0.0000	2.3631	2.3631	9.0000e-005	0.0000	2.3654
Total	**3.9100e-003**	**0.0342**	**0.0266**	**7.0000e-005**	**2.7200e-003**	**6.0000e-005**	**2.7800e-003**	**7.4000e-004**	**6.0000e-005**	**8.0000e-004**	**0.0000**	**6.4739**	**6.4739**	**4.7000e-004**	**0.0000**	**6.4857**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.5187**	**7.6300e-003**	**9.0900e-003**	**1.0000e-005**		**4.7000e-004**	**4.7000e-004**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	3.0000e-005	3.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	**7.0000e-005**	**3.0000e-005**	**3.8000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0511**	**0.0511**	**0.0000**	**0.0000**	**0.0511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	6.7800e-003	9.1600e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	**0.5179**	**6.7800e-003**	**9.1600e-003**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**9.0000e-005**	**0.0000**	**1.2788**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	3.0000e-005	3.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	**7.0000e-005**	**3.0000e-005**	**3.8000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0511**	**0.0511**	**0.0000**	**0.0000**	**0.0511**

3.8 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	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8700e-003**	**0.0387**	**0.0443**	**7.0000e-005**		**2.0800e-003**	**2.0800e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**5.8825**	**5.8825**	**1.8600e-003**	**0.0000**	**5.9291**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	3.0000e-005	3.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	**7.0000e-005**	**3.0000e-005**	**3.8000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0511**	**0.0511**	**0.0000**	**0.0000**	**0.0511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6000e-003	0.0332	0.0493	7.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6000e-003**	**0.0332**	**0.0493**	**7.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**5.8825**	**5.8825**	**1.8600e-003**	**0.0000**	**5.9291**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	3.0000e-005	3.8000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	**7.0000e-005**	**3.0000e-005**	**3.8000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0511**	**0.0511**	**0.0000**	**0.0000**	**0.0511**

2375-2395 S. Bascom Ave Senior Living, San Jose - Santa Clara County, Annual

2375-2395 S. Bascom Ave Senior Living, San Jose - 2030

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	45.00	Space	0.00	18,000.00	0
Congregate Care (Assisted Living)	79.00	Dwelling Unit	1.23	73,000.00	226

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 Rate = 290

Land Use - Provided Site Plan/Proj Descrip land uses

Construction Phase - Default construction schedule, Trenching added

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Default Const Equip & hours

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Trench equip added

Grading - provided info - grading = 15,250cy exported

Demolition - Exiting building demo = 6,030sf

Vehicle Trips - With reductions, Res = 2.63, 2.11, 2.34

Woodstoves - All gas no wood

Water And Wastewater - WTP treatment 100% aerobic

Stationary Sources - Emergency Generators and Fire Pumps - 1 Emergency generator, 280-kW / 375-hp, 50hr/year

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	6/9/2021	5/26/2021
tblConstructionPhase	PhaseEndDate	5/26/2021	6/9/2021
tblConstructionPhase	PhaseStartDate	5/27/2021	5/13/2021
tblConstructionPhase	PhaseStartDate	5/13/2021	5/27/2021
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	11.85	25.28
tblFireplaces	NumberWood	13.43	0.00
tblGrading	MaterialExported	0.00	15,250.00
tblLandUse	LandUseSquareFeet	79,000.00	73,000.00
tblLandUse	LotAcreage	0.41	0.00
tblLandUse	LotAcreage	4.94	1.23
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	375.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

tblVehicleTrips	ST_TR	2.20	2.11
tblVehicleTrips	SU_TR	2.44	2.34
tblVehicleTrips	WD_TR	2.74	2.63
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3559	9.4700e-003	0.5866	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.8000e-004	6.0000e-005	4.1565
Energy	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	93.1977	93.1977	6.3800e-003	1.8400e-003	93.9061
Mobile	0.0297	0.1283	0.3421	1.4700e-003	0.1706	9.9000e-004	0.1715	0.0456	9.2000e-004	0.0466	0.0000	135.6384	135.6384	3.9000e-003	0.0000	135.7359
Stationary	0.0154	0.0430	0.0392	7.0000e-005		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.1400	7.1400	1.0000e-003	0.0000	7.1650
Waste						0.0000	0.0000		0.0000	0.0000	14.6336	0.0000	14.6336	0.8648	0.0000	36.2542
Water						0.0000	0.0000		0.0000	0.0000	1.8211	5.1576	6.9787	6.7800e-003	4.0700e-003	8.3602
Total	**0.4047**	**0.2122**	**0.9813**	**1.7900e-003**	**0.1706**	**9.2600e-003**	**0.1798**	**0.0456**	**9.1900e-003**	**0.0548**	**16.4547**	**245.2485**	**261.7032**	**0.8839**	**5.9700e-003**	**285.5779**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3559	9.4700e-003	0.5866	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.8000e-004	6.0000e-005	4.1565
Energy	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	93.1977	93.1977	6.3800e-003	1.8400e-003	93.9061
Mobile	0.0297	0.1283	0.3421	1.4700e-003	0.1706	9.9000e-004	0.1715	0.0456	9.2000e-004	0.0466	0.0000	135.6384	135.6384	3.9000e-003	0.0000	135.7359
Stationary	0.0154	0.0430	0.0392	7.0000e-005		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.1400	7.1400	1.0000e-003	0.0000	7.1650
Waste						0.0000	0.0000		0.0000	0.0000	14.6336	0.0000	14.6336	0.8648	0.0000	36.2542
Water						0.0000	0.0000		0.0000	0.0000	1.8211	5.1576	6.9787	6.7800e-003	4.0700e-003	8.3602
Total	**0.4047**	**0.2122**	**0.9813**	**1.7900e-003**	**0.1706**	**9.2600e-003**	**0.1798**	**0.0456**	**9.1900e-003**	**0.0548**	**16.4547**	**245.2485**	**261.7032**	**0.8839**	**5.9700e-003**	**285.5779**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0297	0.1283	0.3421	1.4700e-003	0.1706	9.9000e-004	0.1715	0.0456	9.2000e-004	0.0466	0.0000	135.6384	135.6384	3.9000e-003	0.0000	135.7359
Unmitigated	0.0297	0.1283	0.3421	1.4700e-003	0.1706	9.9000e-004	0.1715	0.0456	9.2000e-004	0.0466	0.0000	135.6384	135.6384	3.9000e-003	0.0000	135.7359

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	207.77	166.69	184.86	458,754	458,754
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	207.77	166.69	184.86	458,754	458,754

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Enclosed Parking with Elevator	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.7760	56.7760	5.6800e-003	1.1700e-003	57.2680
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.7760	56.7760	5.6800e-003	1.1700e-003	57.2680
NaturalGas Mitigated	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381
NaturalGas Unmitigated	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	682517	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381
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	0.0000
Total		**3.6800e-003**	**0.0315**	**0.0134**	**2.0000e-004**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**36.4217**	**36.4217**	**7.0000e-004**	**6.7000e-004**	**36.6381**

Mitigated

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

Congregate Care (Assisted Living)	682517	3.6800e-003	0.0315	0.0134	2.0000e-004		2.5400e-003	2.5400e-003		2.5400e-003	2.5400e-003	0.0000	36.4217	36.4217	7.0000e-004	6.7000e-004	36.6381
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	0.0000
Total		**3.6800e-003**	**0.0315**	**0.0134**	**2.0000e-004**		**2.5400e-003**	**2.5400e-003**		**2.5400e-003**	**2.5400e-003**	**0.0000**	**36.4217**	**36.4217**	**7.0000e-004**	**6.7000e-004**	**36.6381**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	326140	42.9010	4.2900e-003	8.9000e-004	43.2728
Enclosed Parking with Elevator	105480	13.8750	1.3900e-003	2.9000e-004	13.9953
Total		**56.7760**	**5.6800e-003**	**1.1800e-003**	**57.2680**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	326140	42.9010	4.2900e-003	8.9000e-004	43.2728
Enclosed Parking with Elevator	105480	13.8750	1.3900e-003	2.9000e-004	13.9953
Total		**56.7760**	**5.6800e-003**	**1.1800e-003**	**57.2680**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3559	9.4700e-003	0.5866	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.8000e-004	6.0000e-005	4.1565
Unmitigated	0.3559	9.4700e-003	0.5866	5.0000e-005		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	4.1149	4.1149	9.8000e-004	6.0000e-005	4.1565

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0518					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7300e-003	1.1600e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1559	3.1559	6.0000e-005	6.0000e-005	3.1747
Landscaping	0.0175	6.7500e-003	0.5855	3.0000e-005		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	0.9590	0.9590	9.1000e-004	0.0000	0.9819
Total	**0.3559**	**9.4800e-003**	**0.5866**	**5.0000e-005**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**4.1149**	**4.1149**	**9.7000e-004**	**6.0000e-005**	**4.1565**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0518					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7300e-003	1.1600e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1559	3.1559	6.0000e-005	6.0000e-005	3.1747
Landscaping	0.0175	6.7500e-003	0.5855	3.0000e-005		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	0.9590	0.9590	9.1000e-004	0.0000	0.9819
Total	**0.3559**	**9.4800e-003**	**0.5866**	**5.0000e-005**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**4.1149**	**4.1149**	**9.7000e-004**	**6.0000e-005**	**4.1565**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9787	6.7800e-003	4.0700e-003	8.3602
Unmitigated	6.9787	6.7800e-003	4.0700e-003	8.3602

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.14717 / 3.24495	6.9787	6.7800e-003	4.0700e-003	8.3602
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.9787**	**6.7800e-003**	**4.0700e-003**	**8.3602**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.14717 / 3.24495	6.9787	6.7800e-003	4.0700e-003	8.3602
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.9787**	**6.7800e-003**	**4.0700e-003**	**8.3602**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.6336	0.8648	0.0000	36.2542
Unmitigated	14.6336	0.8648	0.0000	36.2542

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	72.09	14.6336	0.8648	0.0000	36.2542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**14.6336**	**0.8648**	**0.0000**	**36.2542**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	72.09	14.6336	0.8648	0.0000	36.2542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000

Total		**14.6336**	**0.8648**	**0.0000**	**36.2542**

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
Emergency Generator	1	0	50	375	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0154	0.0430	0.0392	7.0000e-005		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.1400	7.1400	1.0000e-003	0.0000	7.1650
Total	**0.0154**	**0.0430**	**0.0392**	**7.0000e-005**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**7.1400**	**7.1400**	**1.0000e-003**	**0.0000**	**7.1650**

11.0 Vegetation

2375-2395 S. Bascom Ave Senior Living, San Jose - Existing 2030

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	6.03	1000sqft	0.14	6,030.00	0
Parking Lot	1.09	Acre	1.09	47,480.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Provided existing land uses

Construction Phase - existing - no construction

Off-road Equipment - existing - no construction

Grading - existing - no construction

Demolition -

Trips and VMT -

Vehicle Trips - with reduction, retail = 17.25, 16.36, 7.95

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	PhaseEndDate	7/30/2020	7/1/2020
tblConstructionPhase	PhaseStartDate	7/29/2020	7/1/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	42.04	16.36
tblVehicleTrips	SU_TR	20.43	7.95
tblVehicleTrips	WD_TR	44.32	17.25

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	24.3494	24.3494	1.0800e-003	2.3000e-004	24.4463
Mobile	0.0125	0.0530	0.1225	4.9000e-004	0.0545	3.4000e-004	0.0549	0.0146	3.2000e-004	0.0149	0.0000	45.0387	45.0387	1.3900e-003	0.0000	45.0735
Waste						0.0000	0.0000		0.0000	0.0000	1.2849	0.0000	1.2849	0.0759	0.0000	3.1834

Water						0.0000	0.0000		0.0000	0.0000	0.1417	0.9818	1.1235	0.0146	3.5000e-004	1.5937
Total	**0.0434**	**0.0537**	**0.1232**	**4.9000e-004**	**0.0545**	**3.9000e-004**	**0.0549**	**0.0146**	**3.7000e-004**	**0.0150**	**1.4266**	**70.3700**	**71.7966**	**0.0930**	**5.8000e-004**	**74.2970**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	24.3494	24.3494	1.0800e-003	2.3000e-004	24.4463
Mobile	0.0125	0.0530	0.1225	4.9000e-004	0.0545	3.4000e-004	0.0549	0.0146	3.2000e-004	0.0149	0.0000	45.0387	45.0387	1.3900e-003	0.0000	45.0735
Waste						0.0000	0.0000		0.0000	0.0000	1.2849	0.0000	1.2849	0.0759	0.0000	3.1834
Water						0.0000	0.0000		0.0000	0.0000	0.1417	0.9818	1.1235	0.0146	3.5000e-004	1.5937
Total	**0.0434**	**0.0537**	**0.1232**	**4.9000e-004**	**0.0545**	**3.9000e-004**	**0.0549**	**0.0146**	**3.7000e-004**	**0.0150**	**1.4266**	**70.3700**	**71.7966**	**0.0930**	**5.8000e-004**	**74.2970**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0125	0.0530	0.1225	4.9000e-004	0.0545	3.4000e-004	0.0549	0.0146	3.2000e-004	0.0149	0.0000	45.0387	45.0387	1.3900e-003	0.0000	45.0735
Unmitigated	0.0125	0.0530	0.1225	4.9000e-004	0.0545	3.4000e-004	0.0549	0.0146	3.2000e-004	0.0149	0.0000	45.0387	45.0387	1.3900e-003	0.0000	45.0735

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Strip Mall	104.02	98.65	47.94	146,672	146,672
Total	104.02	98.65	47.94	146,672	146,672

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651
Strip Mall	0.621541	0.034056	0.180136	0.101248	0.011859	0.005060	0.013110	0.022881	0.002221	0.001470	0.005122	0.000646	0.000651

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.5868	23.5868	1.0700e-003	2.2000e-004	23.6792
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23.5868	23.5868	1.0700e-003	2.2000e-004	23.6792
NaturalGas Mitigated	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672
NaturalGas Unmitigated	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	14291.1	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672
Total		**8.0000e-005**	**7.0000e-004**	**5.9000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.7626**	**0.7626**	**1.0000e-005**	**1.0000e-005**	**0.7672**

Mitigated

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

Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	14291.1	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7626	0.7626	1.0000e-005	1.0000e-005	0.7672
Total		**8.0000e-005**	**7.0000e-004**	**5.9000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.7626**	**0.7626**	**1.0000e-005**	**1.0000e-005**	**0.7672**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	16618.1	4.8344	2.2000e-004	5.0000e-005	4.8534
Strip Mall	64460.7	18.7524	8.5000e-004	1.8000e-004	18.8258
Total		**23.5868**	**1.0700e-003**	**2.3000e-004**	**23.6792**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	16618.1	4.8344	2.2000e-004	5.0000e-005	4.8534
Strip Mall	64460.7	18.7524	8.5000e-004	1.8000e-004	18.8258
Total		**23.5868**	**1.0700e-003**	**2.3000e-004**	**23.6792**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Unmitigated	0.0308	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**0.0308**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0266					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**0.0308**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1235	0.0146	3.5000e-004	1.5937
Unmitigated	1.1235	0.0146	3.5000e-004	1.5937

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.446657 / 0.273758	1.1235	0.0146	3.5000e-004	1.5937
Total		**1.1235**	**0.0146**	**3.5000e-004**	**1.5937**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.446657 / 0.273758	1.1235	0.0146	3.5000e-004	1.5937
Total		**1.1235**	**0.0146**	**3.5000e-004**	**1.5937**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	1.2849	0.0759	0.0000	3.1834
Unmitigated	1.2849	0.0759	0.0000	3.1834

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.33	1.2849	0.0759	0.0000	3.1834
Total		**1.2849**	**0.0759**	**0.0000**	**3.1834**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.33	1.2849	0.0759	0.0000	3.1834
Total		**1.2849**	**0.0759**	**0.0000**	**3.1834**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment 3: Community Health Risk Calculations

Construction Emissions and Health Risk Calculations

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA

DPM Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2020	Construction	0.0566	CON_DPM	113.2	0.03446	4.34E-03	5056.269	8.59E-07
2021	Construction	0.0348	CON_DPM	69.6	0.02119	2.67E-03	5056.269	5.28E-07
Total		***0.0914***		***# 182.8***	***0.0556***	***0.0070***		

Construction Hours

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

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	(lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2020	Construction	CON_FUG	0.0097	19.4	0.00589	7.43E-04	5,056.3	1.47E-07
2021	Construction	CON_FUG	0.0008	1.5	0.00046	5.83E-05	5,056.3	1.15E-08
Total			***0.0104***	***20.9***	***0.0064***	***0.0008***		

Construction Hours

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

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	(lb/hr)	(g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2020	Construction	0.0073	CON_DPM	14.6	0.00445	5.61E-04	5056.269	1.11E-07
2021	Construction	0.0056	CON_DPM	11.2	0.00340	4.28E-04	5056.269	8.47E-08
Total		***0.0129***		***# 25.8***	***0.0078***	***0.0010***		

Construction Hours

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

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

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2020	Construction	CON_FUG	0.0030	6.1	0.00184	2.32E-04	5,056.3	4.60E-08
2021	Construction	CON_FUG	0.0008	1.5	0.00046	5.83E-05	5,056.3	1.15E-08
Total			***0.0038***	***7.6***	***0.0023***	***0.0003***		

Construction Hours

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

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA
- Construction Health Impact Summary

Maximum Impacts at MEI Location - Unmitigated

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2020	0.13667	0.04255	24.3	0.4	0.03	0.18
2021	0.08401	0.00333	13.8	0.2	0.02	0.09
Total	-	-	**38.1**	**0.6**	-	-
Maximum	0.1367	0.0426	**-**	**-**	**0.03**	**0.18**

Maximum Impacts at MEI Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant/Child	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2020	0.01766	0.01331	3.1	0.05	0.004	0.03
2021	0.01348	0.00333	2.2	0.04	0.003	0.02
Total	-	-	**5.4**	**0.09**	-	-
Maximum	0.0177	0.0133	**-**	**-**	**0.004**	**0.03**

- Tier 3 DPF 3 Mitigation

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	861	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2020	0.1367	10	1.86	2020	0.1367	-	-		
1	1	0 - 1	2020	0.1367	10	22.45	2020	0.1367	1	0.39	0.0426	0.1792
2	1	1 - 2	2021	0.0840	10	13.80	2021	0.0840	1	0.24	0.0033	0.0873
3	1	2 - 3	0	0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4	0	0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5	0	0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6	0	0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7	0	0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8	0	0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9	0	0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10	0	0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11	0	0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12	0	0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13	0	0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14	0	0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15	0	0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16	0	0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17	0	0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18	0	0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19	0	0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20	0	0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21	0	0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22	0	0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23	0	0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24	0	0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25	0	0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26	0	0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27	0	0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28	0	0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29	0	0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30	0	0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**38.1**				**0.63**		

* Third trimester of pregnancy

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	861	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
				DPM Conc (ug/m3)	Age	Infant/Child		Modeled DPM Conc (ug/m3)	Age	Adult		
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2020	0.0763	10	1.04	2020	0.0763	-	-		
1	1	0 - 1	2020	0.0763	10	12.53	2020	0.0763	1	0.22	0.0150	0.0913
2	1	1 - 2	2021	0.0469	10	7.70	2021	0.0469	1	0.13	0.0012	0.0481
3	1	2 - 3	0	0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4	0	0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5	0	0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6	0	0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7	0	0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8	0	0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9	0	0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10	0	0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11	0	0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12	0	0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13	0	0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14	0	0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15	0	0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16	0	0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17	0	0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18	0	0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19	0	0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20	0	0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21	0	0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22	0	0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23	0	0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24	0	0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25	0	0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26	0	0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27	0	0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28	0	0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29	0	0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30	0	0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**21.3**				**0.35**		

* Third trimester of pregnancy

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA - Construction Impacts - With Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child				Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 9**	**2 - 16**	**16 - 30**
Parameter					
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	861	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum	
							Modeled					
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Infant/Child Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Adult Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2020	0.0177	10	0.24	2020	0.0177	-	-		
1	1	0 - 1	2020	0.0177	10	2.90	2020	0.0177	1	0.05	0.0133	0.0310
2	1	1 - 2	2021	0.0135	10	2.21	2021	0.0135	1	0.04	0.0033	0.0168
3	1	2 - 3	0	0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4	0	0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5	0	0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6	0	0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7	0	0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8	0	0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9	0	0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10	0	0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11	0	0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12	0	0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13	0	0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14	0	0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15	0	0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16	0	0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17	0	0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18	0	0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19	0	0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20	0	0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21	0	0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22	0	0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23	0	0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24	0	0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25	0	0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26	0	0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27	0	0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28	0	0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29	0	0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30	0	0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**5.4**				**0.09**		

* Third trimester of pregnancy

Operational Emissions and Health Risk Calculations

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA

Standby Emergency Generator Impacts

Off-site Sensitive Receptors (1.5 meter receptor heights)

DPM Emission Rates			
	DPM Emissions per Generator		
	Max Daily	Annual	
Source Type	(lb/day)	(lb/year)	
150kW 240 hp Generator	0.012	4.52	
CalEEMod DPM Emissions	0.00226	tons/year	

Modeling Information		
Model	AERMOD	
Source	Diesel Generator Engine	
Source Type	Point	
Meteorological Data	2006-2010 San Jose Airport Meterological Data	
Point Source Stack Parameters		
Generator Engine Size (hp)	375	
Stack Height (ft)**	12.00	near ground level release
Stack Diameter (ft)**	0.60	
Exhaust Gas Flowrate (CFM)***	2070.15	
Stack Exit Velocity (ft/sec)***	122.08	
Exhaust Temperature (˚F)***	1229.00	
Emissions Rate (lb/hr)	0.000516	

* AERMOD default

**BAAQMD default generator parameters

**Generator spec sheet parameters

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA - Cancer Risks from Project Operati
Project Emergency Generator
Impacts at Off-Site Receptors-1.5 meter receptor height
Impact at Operational MEI (30-year Exposure)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
0	0.25	-0.25 - 0*	2020	0.0007	10	0.01
1	1	0 - 1	2020	0.0007	10	0.11
2	1	1 - 2	2021	0.0007	10	0.11
3	1	2 - 3	2022	0.0007	3	0.02
4	1	3 - 4	2023	0.0007	3	0.02
5	1	4 - 5	2024	0.0007	3	0.02
6	1	5 - 6	2025	0.0007	3	0.02
7	1	6 - 7	2026	0.0007	3	0.02
8	1	7 - 8	2027	0.0007	3	0.02
9	1	8 - 9	2028	0.0007	3	0.02
10	1	9 - 10	2029	0.0007	3	0.02
11	1	10 - 11	2030	0.0007	3	0.02
12	1	11 - 12	2031	0.0007	3	0.02
13	1	12 - 13	2032	0.0007	3	0.02
14	1	13 - 14	2033	0.0007	3	0.02
15	1	14 - 15	2034	0.0007	3	0.02
16	1	15 - 16	2035	0.0007	3	0.02
17	1	16-17	2036	0.0007	1	0.00
18	1	17-18	2037	0.0007	1	0.00
19	1	18-19	2038	0.0007	1	0.00
20	1	19-20	2039	0.0007	1	0.00
21	1	20-21	2040	0.0007	1	0.00
22	1	21-22	2041	0.0007	1	0.00
23	1	22-23	2042	0.0007	1	0.00
24	1	23-24	2043	0.0007	1	0.00
25	1	24-25	2044	0.0007	1	0.00
26	1	25-26	2045	0.0007	1	0.00
27	1	26-27	2046	0.0007	1	0.00
28	1	27-28	2047	0.0007	1	0.00
29	1	28-29	2048	0.0007	1	0.00
30	1	29-30	2049	0.0007	1	0.00
Total Increased Cancer Risk						**0.5**

* Third trimester of pregnancy

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA - Cancer Risks from Project Operati

Project Emergency Generator

Impacts at Off-Site Receptors-4.5 meter receptor height

Impact at Operational MEI (30-year Exposure)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)
			DPM Conc (ug/m3)		Age Sensitivity Factor	
			Year	Annual		
0	0.25	-0.25 - 0*	2020	0.0007	10	0.01
1	1	0 - 1	2020	0.0007	10	0.11
2	1	1 - 2	2021	0.0007	10	0.11
3	1	2 - 3	2022	0.0007	3	0.02
4	1	3 - 4	2023	0.0007	3	0.02
5	1	4 - 5	2024	0.0007	3	0.02
6	1	5 - 6	2025	0.0007	3	0.02
7	1	6 - 7	2026	0.0007	3	0.02
8	1	7 - 8	2027	0.0007	3	0.02
9	1	8 - 9	2028	0.0007	3	0.02
10	1	9 - 10	2029	0.0007	3	0.02
11	1	10 - 11	2030	0.0007	3	0.02
12	1	11 - 12	2031	0.0007	3	0.02
13	1	12 - 13	2032	0.0007	3	0.02
14	1	13 - 14	2033	0.0007	3	0.02
15	1	14 - 15	2034	0.0007	3	0.02
16	1	15 - 16	2035	0.0007	3	0.02
17	1	16-17	2036	0.0007	1	0.00
18	1	17-18	2037	0.0007	1	0.00
19	1	18-19	2038	0.0007	1	0.00
20	1	19-20	2039	0.0007	1	0.00
21	1	20-21	2040	0.0007	1	0.00
22	1	21-22	2041	0.0007	1	0.00
23	1	22-23	2042	0.0007	1	0.00
24	1	23-24	2043	0.0007	1	0.00
25	1	24-25	2044	0.0007	1	0.00
26	1	25-26	2045	0.0007	1	0.00
27	1	26-27	2046	0.0007	1	0.00
28	1	27-28	2047	0.0007	1	0.00
29	1	28-29	2048	0.0007	1	0.00
30	1	29-30	2049	0.0007	1	0.00
Total Increased Cancer Risk						**0.5**

* Third trimester of pregnancy

2375-2395 S. Bascom Ave Assisted Living, San Jose, CA - Cancer Risks from Project Operati
Project Emergency Generator
Impacts at Off-Site Receptors-7.6 meter receptor height
Impact at Operational MEI (30-year Exposure)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
0	0.25	-0.25 - 0*	2020	0.0008	10	0.01
1	1	0 - 1	2020	0.0008	10	0.13
2	1	1 - 2	2021	0.0008	10	0.13
3	1	2 - 3	2022	0.0008	3	0.02
4	1	3 - 4	2023	0.0008	3	0.02
5	1	4 - 5	2024	0.0008	3	0.02
6	1	5 - 6	2025	0.0008	3	0.02
7	1	6 - 7	2026	0.0008	3	0.02
8	1	7 - 8	2027	0.0008	3	0.02
9	1	8 - 9	2028	0.0008	3	0.02
10	1	9 - 10	2029	0.0008	3	0.02
11	1	10 - 11	2030	0.0008	3	0.02
12	1	11 - 12	2031	0.0008	3	0.02
13	1	12 - 13	2032	0.0008	3	0.02
14	1	13 - 14	2033	0.0008	3	0.02
15	1	14 - 15	2034	0.0008	3	0.02
16	1	15 - 16	2035	0.0008	3	0.02
17	1	16-17	2036	0.0008	1	0.00
18	1	17-18	2037	0.0008	1	0.00
19	1	18-19	2038	0.0008	1	0.00
20	1	19-20	2039	0.0008	1	0.00
21	1	20-21	2040	0.0008	1	0.00
22	1	21-22	2041	0.0008	1	0.00
23	1	22-23	2042	0.0008	1	0.00
24	1	23-24	2043	0.0008	1	0.00
25	1	24-25	2044	0.0008	1	0.00
26	1	25-26	2045	0.0008	1	0.00
27	1	26-27	2046	0.0008	1	0.00
28	1	27-28	2047	0.0008	1	0.00
29	1	28-29	2048	0.0008	1	0.00
30	1	29-30	2049	0.0008	1	0.00
Total Increased Cancer Risk						**0.6**

* Third trimester of pregnancy

Gifford Senior Housing, San Jose, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors-1.5 meter receptor height
Impact at Project MEI (28-year Exposure)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
0	0.25	-0.25 - 0*	2020	0.1367	10	1.94
1	1	0 - 1	2020	0.1367	10	22.45
2	1	1 - 2	2021	0.0840	10	13.80
3	1	2 - 3	2022	0.0004	3	0.01
4	1	3 - 4	2023	0.0004	3	0.01
5	1	4 - 5	2024	0.0004	3	0.01
6	1	5 - 6	2025	0.0004	3	0.01
7	1	6 - 7	2026	0.0004	3	0.01
8	1	7 - 8	2027	0.0004	3	0.01
9	1	8 - 9	2028	0.0004	3	0.01
10	1	9 - 10	2029	0.0004	3	0.01
11	1	10 - 11	2030	0.0004	3	0.01
12	1	11 - 12	2031	0.0004	3	0.01
13	1	12 - 13	2032	0.0004	3	0.01
14	1	13 - 14	2033	0.0004	3	0.01
15	1	14 - 15	2034	0.0004	3	0.01
16	1	15 - 16	2035	0.0004	3	0.01
17	1	16-17	2036	0.0004	1	0.00
18	1	17-18	2037	0.0004	1	0.00
19	1	18-19	2038	0.0004	1	0.00
20	1	19-20	2039	0.0004	1	0.00
21	1	20-21	2040	0.0004	1	0.00
22	1	21-22	2041	0.0004	1	0.00
23	1	22-23	2042	0.0004	1	0.00
24	1	23-24	2043	0.0004	1	0.00
25	1	24-25	2044	0.0004	1	0.00
26	1	25-26	2045	0.0004	1	0.00
27	1	26-27	2046	0.0004	1	0.00
28	1	27-28	2047	0.0004	1	0.00
29	1	28-29	2048	0.0004	1	0.00
30	1	29-30	2049	0.0004	1	0.00
Total Increased Cancer Risk						**38.4**

* Third trimester of pregnancy

Gifford Senior Housing, San Jose, CA - Cancer Risks from Project Operation
Project Emergency Generator
Impacts at Off-Site Receptors-1.5 meter receptor height
Impact at Project MEI (28-year Exposure)

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

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

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

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

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Infant/Child Cancer Risk (per million)
0	0.25	-0.25 - 0*	2020	0.0177	10	0.25
1	1	0 - 1	2020	0.0177	10	2.90
2	1	1 - 2	2021	0.0135	10	2.21
3	1	2 - 3	2022	0.0004	3	0.01
4	1	3 - 4	2023	0.0004	3	0.01
5	1	4 - 5	2024	0.0004	3	0.01
6	1	5 - 6	2025	0.0004	3	0.01
7	1	6 - 7	2026	0.0004	3	0.01
8	1	7 - 8	2027	0.0004	3	0.01
9	1	8 - 9	2028	0.0004	3	0.01
10	1	9 - 10	2029	0.0004	3	0.01
11	1	10 - 11	2030	0.0004	3	0.01
12	1	11 - 12	2031	0.0004	3	0.01
13	1	12 - 13	2032	0.0004	3	0.01
14	1	13 - 14	2033	0.0004	3	0.01
15	1	14 - 15	2034	0.0004	3	0.01
16	1	15 - 16	2035	0.0004	3	0.01
17	1	16-17	2036	0.0004	1	0.00
18	1	17-18	2037	0.0004	1	0.00
19	1	18-19	2038	0.0004	1	0.00
20	1	19-20	2039	0.0004	1	0.00
21	1	20-21	2040	0.0004	1	0.00
22	1	21-22	2041	0.0004	1	0.00
23	1	22-23	2042	0.0004	1	0.00
24	1	23-24	2043	0.0004	1	0.00
25	1	24-25	2044	0.0004	1	0.00
26	1	25-26	2045	0.0004	1	0.00
27	1	26-27	2046	0.0004	1	0.00
28	1	27-28	2047	0.0004	1	0.00
29	1	28-29	2048	0.0004	1	0.00
30	1	29-30	2049	0.0004	1	0.00
Total Increased Cancer Risk						**5.5**

* Third trimester of pregnancy

KOHLER Power Systems

KR280U

Engine type	6090HFS86
Alternator type	AT02260T
Canopy type	M3227
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	60
Voltage (V)	480/277
Max power ESP (kVA)	350
Max power ESP (kWe)	280
Max power PRP (kVA)	318
Max power PRP (kWe)	255
Intensity (A)	421
Standard control panel	APM303
Optional control panel	DEC4000

DESCRIPTIVE

- Connection terminal box rental type
- Containment fuel tank and large autonomy
- Forks and frame protection pads
- Battery isolating switch
- Heavy duty air filter with interchangeable cartridge
- Access door to the radiator

SMALL AUTONOMY DIMENSIONS

Length (mm).	4332
Width (mm).	1361
Height (mm).	2431
Dry weight (kg).	4210
Tank capacity (L).	1083
Autonomy @ 75% of load (h)	N/A
Autonomy @ 50% of load (h)	N/A

POWER DEFINITION

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. ESP : The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed.

TERM OF USE

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30 % relative humidity. For particular conditions in your installation, refer to the derating table.

ASSOCIATED UNCERTAINTY

For the generating sets used indoor, where the acoustic pressure levels depends on the installation conditions, it is not possible to specify the ambient noise level in the exploitation and maintenance instructions . You will also find in our exploitation and maintenance instructions a warning concerning the air noise dangers and the need to implement appropriated preventive measures.

SOUND LEVELS

Acoustic pressure level @1m in dB(A)	0 (0.7)
Acoustic pressure level @7m in dB(A)	N/A

KOHLER Power Systems

KR280U

ENGINE SPECIFICATIONS

GENERAL ENGINE DATA

Engine model	JOHN DEERE
Engine type	6090HFS86
Air inlet	Turbo
Cylinders arrangement	L
Number of cylinders	6
Displacement (L)	8.98
Charge Air coolant	Air/Water DC
Bore (mm) x Stroke (mm)	118.4 x 136
Compression ratio	16 : 1
Speed (RPM)	1800
Pistons speed (m/s)	8.16
Maximum stand-by power at rated RPM (kW)	315
Frequency regulation, steady state (%)	+/- 0.5%
BMEP (bar)	21.3
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (L)	N/A
Max water temperature (°C)	110
Outlet water temperature (°C)	N/A
Fan power (kW)	N/A
Fan air flow w/o restriction (m3/s)	N/A
Available restriction on air flow (mm H2O)	N/A
Type of coolant	Glycol-Ethylene
Thermostat modulating range HT (°C)	82-94

EMISSIONS

Emission PM (g/kWh)	N/A
Emission CO (g/kWh)	N/A
Emission HC+NOx (g/kWh)	N/A
Emission HC (g/kWh)	N/A

EXHAUST

Exhaust gas temperature @ ESP 60Hz (°C)	665
Exhaust gas flow @ ESP 60Hz (L/s)	977
Max. exhaust back pressure (mm H2O)	765

FUEL

Consumption @ 110% load (L/h)	68.9
Consumption @ 100% load (L/h)	70.7
Consumption @ 75% load (L/h)	54.6
Consumption @ 50% load (L/h)	38.4
Maximum fuel pump flow (L/h)	N/A

OIL

Oil capacity (L)	40
Min. oil pressure (bar)	1.05
Max. oil pressure (bar)	N/A
Oil consumption 100% load (L/h)	N/A
Oil sump capacity (L)	N/A

HEAT BALANCE

Heat rejection to exhaust (kW)	234
Radiated heat to ambient (kW)	31
Heat rejection to coolant (kW)	111.6

AIR INTAKE

Max. intake restriction (mm H2O)	637
Intake air flow (L/s)	403

KOHLER Power Systems

KR280U

ALTERNATOR SPECIFICATIONS

GENERAL DATA

Alternator type	AT02260T
Number of Phase	Three phase
Power factor (Cos Phi)	0.8
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Capacity for maintaining short circuit at 3 In for 10 s	Yes
Insulation class	H
T° class (H/125°), continuous 40°C	H / 125°K
T° class, standby 27°C	H / 163°K
AVR Regulation	Yes
Total Harmonic Distortion in no-load DHT (%)	<2.5
Total Harmonic Distortion, on load DHT (%)	<2.5
Wave form : NEMA=TIF	<50
Wave form : CEI=FHT	<2
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (+/- %)	0.5
Recovery time (Delta U = 20% transient) (ms)	500
Protection class	IP 23
Technology	Without collar or brush

OTHER DATA

Continuous Nominal Rating 40°C (kVA)	381
Standby Rating 27°C (kVA)	429
Efficiencies 100% of load (%)	93.9
Air flow (m3/s)	0.51
Short circuit ratio (Kcc)	0.496
Direct axis synchro reactance unsaturated (Xd) (%)	275
Quadrature-axis synchro reactance unsaturated (Xq) (%)	140
Open circuit time constant (T'do) (ms)	2253
Direct axis transient reactance saturated (X'd) (%)	12.2
Short circuit transient time constant (T'd) (ms)	100
Direct axis subtransient reactance saturated (X"d) (%)	7.3
Subtransient time constant (T"d) (ms)	10
Quadrature-axis subtransient reactance saturated (X"q) (%)	9
Subtransient time constant (T"q) (ms)	10
Zero sequence reactance unsaturated (Xo) (%)	N/A
Negative sequence reactance saturated (X2) (%)	8.19
Armature time constant (Ta) (ms)	15
No load excitation current (io) (A)	1.05
Full load excitation current (ic) (A)	3.38
Full load excitation voltage (uc) (V)	50.8
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	956.57
Transient dip (4/4 load) - PF : 0.8 AR (%)	11
No load losses (W)	7103.19
Heat rejection (W)	19582.56
Unbalanced load acceptance ratio (%)	100

KOHLER Power Systems

KR280U

CONTROL PANEL

APM303, comprehensive and simple

The APM303 is a versatile unit which can be operated in manual or automatic mode. It offers the following features:
Measurements:
phase-to-neutral and phase-to-phase voltages, fuel level
(In option : active power currents, effective power, power factors, Kw/h energy meter, oil pressure and coolant temperature levels)
Supervision:
Modbus RTU communication on RS485
Reports:
(In option : 2 configurable reports)
Safety features:
Overspeed, oil pressure,coolant temperatures, minimum and maximum voltage, minimum and maximum frequency
(Maximum active power P<66kVA)
Traceability:
Stack of 12 stored events
For further information, please refer to the data sheet for the APM303.

DEC4000, ergonomic and user-friendly

The highly versatile DEC4000 control unit is complex yet accessible, thanks to the particular attention paid to optimising its ergonomics and ease of use. With its large display screen, buttons and scroll wheel, it places the accent on simplicity and communication.

The DEC4000 offers the following functions:

Electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, oil pressure, coolant temperature, fuel level, engine speed, battery voltage.

Alarms and faults: oil pressure, coolant temperature, failure to start, overspeed, alternator min./max., battery voltage min./max., emergency stop, fuel level.

Ergonomics: wheel for navigating around the various menus.

Communication: remote control and operation software, USB connections, PC connection.

For more information on the product and its options, please refer to the sales documentation.

Attachment 4: Community Risk Screening and Calculations

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

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

INSTRUCTIONS:

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

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

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

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

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

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

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

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	West
Distance from Roadway	200 feet
	MEI
Annual Average Daily Traffic (ADT)	15,700

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

2.90 (per million)

S Bascom Ave

Cumulative plus project volumes from traffic report

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

Adjusted for 2015 OEHHA and EMFAC2014 for 2018

2.00

(per million)

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

Notes and References:

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

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

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

INSTRUCTIONS:

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

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

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

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

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

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

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

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara
Roadway Direction	North-South
Side of the Roadway	West
Distance from Roadway	20 feet
Annual Average Daily Traffic (ADT)	15,700

Results

Santa Clara County

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

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

Cancer Risk

10.06 (per million)

S Bascom Ave

Cumulative plus project volumes from traffic report

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

Adjusted for 2015 OEHHA and EMFAC2014 for 2018

6.91

(per million)

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

Notes and References:

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

James A. Reyff has 31 years of experience conducting environmental noise studies. Mr. Reyff has managed numerous large transportation noise studies for Caltrans and currently manages a statewide contract with the Department to perform acoustical studies. He is familiar with federal, state and local noise policies and has developed effective working relationships with many regulatory agencies. Mr. Reyff is familiar with the noise technical and policy issues that affect transportation projects, especially projects with federal involvement. He has been formerly trained in the use of FHWA's Traffic Noise Model (TNM). Mr. Reyff combined his expertise in both meteorology and noise to conduct research studies funded by Caltrans that investigated long-range diffraction and reflections of noise from noise barriers under different meteorological conditions. He is the lead investigator for the Interstate 80 Davis Pavement Noise Study that documents the acoustical characteristics of open-graded asphalt overlay as it ages.

Casey Divine started with Illingworth & Rodkin, Inc. in 2013 as an assistant office manager, was promoted to an acoustic staff consultant in 2016, and then an air quality consultant in 2018. Her experience includes performing numerous types of field surveys, analyzing and modeling complex sets of noise and air quality data (e.g., ozone precursor pollutants, fine particulate matter, diesel particulate matter, and greenhouse gas emissions), reporting and reviewing noise, vibration, air quality, and greenhouse gas assessments, compiling company qualifications for local and regional proposals and on-calls, and managing general administration and financial office duties. Mrs. Divine has authored noise, vibration, air quality, and greenhouse gas reports for various land uses including residential, commercial, educational, and industrial developments. Mrs. Divine received her BA from Northeastern University, with a Major in Environmental Studies, and Minors in Environmental Geology, Law, Policy and Society.