Appendix D – Air Quality and Greenhouse Gas Emissions Assessment and Peer Review

SPIEKER CCRC AIR QUALITY & GREENHOUSE GAS EMISSIONS ASSESSMENT

Contra Costa County, California

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Introduction

The purpose of this report is to address air quality and greenhouse gas (GHG) emissions impacts associated with the proposed Spieker Senior Continuing Care Community ("Project") involving 30.4 acres in the Seven Hills Ranch area in Contra Costa County, near Walnut Creek, California. The air quality impacts and GHG emissions associated with the project would be from the demolition of the existing uses, construction of new buildings and infrastructure, and operation of the new senior living residential villas, apartments, and continuing care facilities. Air pollutant and GHG emissions associated with the construction and operation of the project were predicted using appropriate computer models. In addition, the potential construction community risk impact to nearby sensitive receptors and the impact of existing toxic air contaminant (TAC) sources affecting the new residential units were evaluated. This analysis addresses those issues following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Project Description

The property being acquired for the development is primarily vacant land occupied by one single family residence and four detached out-buildings. The project proposes to demolish all existing structures, grade the site, and construct several buildings including:

- Approximately 55 single-store villas ranging from 1,500 to 2,500 square feet (sf) with an aggregate sf of 100,000.
- Approximately 305 apartment units in a four-story structure accompanied by a clubhouse building and recreation building[2]. The building would provide both at-grade and over parking (i.e., parking garage). The estimated gross floor square footage is 550,000.
- A Health Care Center (i.e., congregate care center) with approximately 100 units. The Center will be up to two stories in height and provide skilled nursing, memory care, and assisted living services to residents. Surface (i.e., at grade) parking would be provided at the center.
- Two two-story maintenance buildings that will house the community's maintenance department, a commercial laundry unit, and utilities system control center.

Setting

The project is in Contra Costa County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards except for 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

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

[2] Estimates of independent living units provided on 7-27-20 is 360, 15 units less than the initial estimate on which the air quality analysis is based. This change does not significantly alter the emissions estimates or conclusions.

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, reduce lung function, and increase coughing and chest discomfort.

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

Toxic Air Contaminants

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

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complicated 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.[3] See *Attachment 1* for a detailed description of the community risk modeling methodology used in this assessment.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations

[3] 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.

are assumed to include infants and small children. The closest sensitive receptors to the site are children that may be living in the single-family homes adjacent to the project site. The Seven Hills School's nine-acre campus is directly north of the project site, John Muir Health/Walnut Creek Medical Center is approximately a half mile southeast of site, and the closest daycare facility is 1,730 feet north of the site. There are many single-family residences at various distances surrounding western, northern, and southern boundaries of the site. Once constructed, the project would introduce new sensitive receptors (i.e., adult seniors) to the area.

Regulatory Agencies

CARB has adopted and implemented several 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.[4] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[5] The detailed community risk modeling methodology used in this assessment is contained in *Attachment 1*.

Contra Costa County General Plan 2005 - 2020

The current general plan and amendments for Contra Costa County includes goals, policies, and actions to reduce exposure of the county's sensitive population to air pollution and toxic air contaminants (TACs). The following goals, policies, and actions are applicable to the proposed project:

Applicable Goals

8-AA	To meet Federal Air Quality Standards for all air pollutants.
8-AB	To continue to support Federal, State and regional efforts to reduce air pollution in order to protect human and environmental health.
8-AC	To restore air quality in the area to a more healthful level.

[4] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[5] Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines*. May.

Applicable Policies

8-103 When there is a finding that a proposed project might significantly affect air quality, appropriate mitigation measures shall be imposed.

8-104 Proposed projects shall be reviewed for their potential to generate hazardous air pollutants.

8-105 Land uses which are sensitive to air pollution shall be separated from sources of air pollution.

8-107 New housing in infill and peripheral areas which are adjacent to existing residential development shall be encouraged.

Policy 31.3 Proactively manage local air quality issues.

Applicable Implementation Measures

8-dl Review major development applications for consistency with regional air quality plan assumptions.

8-dm Review major development applications to ensure that buffer zones are provided between major air pollution sources (freeways, industry, etc.) or sources of hazardous pollutants and sensitive receptors such as hospitals, convalescent homes and residences.

8-dp Review proposed development to encourage maximum use of bicycle, pedestrian and transit modes of transportation.

8-dq Support efforts at the State and regional level to enact legislation providing for stricter controls on mobile, stationary and area sources of air pollutants.

8-dr Support efforts at the State and regional level to enact legislation providing for stricter controls on mobile, stationary and area sources of air pollutants.

The county is in the process of updating its General Plan. The new plan, *Envision 2040*, will respond to current concerns about sustainability, environmental justice, and affordable housing, while carrying forward enduring County values like balancing growth and conservation.

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. Air Quality Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	**Average Daily Emissions (lbs./day)**	**Annual Average Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards	**Single Sources Within 1,000-foot Zone of Influence**	**Combined Sources (Cumulative from all sources within 1000-foot zone of influence)**	
Excess Cancer Risk	>10 per one million	>100 per one million	
Hazard Index	>1.0	>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3	>0.8 µg/m^3	
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 *(660 metric tons annually or 2.8 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 MITIGATION MEASURES

Impact: 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*.[6] 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: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable State or federal ambient air quality standard?

The Bay Area is considered a non-attainment area for ground-level O_3 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 O_3, $PM_{2.5}$ and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NOx), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod using CalEEMod default values. The CARB EMission FACtors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks

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

and haul trucks.[7] The model output from CalEEMod along with construction inputs are included as *Attachment 2* and EMFAC2017 vehicle emissions modeling outputs are included in *Attachment 3*.

Land Use Inputs

The proposed project land uses were input into CalEEMod as follows[8]:

- 305 dwelling units and 550,000 sf entered as "Residential- Apartments Low Rise" on 30.4 acres.
- 55 dwelling units and 100,000 sf entered as "Condo/Townhouse."
- 100 dwelling units and 87,000 sf entered as "Congregate Care (Assisted Living)."
- 383 parking spaces in "Enclosed Parking with Elevator" estimated at approximately 138,000 sf.
- Two surface "Parking Lot" uses, one with 112 spaces and one with 99 spaces estimated at 46,500 sf each.
- 281,500 sf entered as "Other Asphalt Surfaces."

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment list and schedule, were based on CalEEMod defaults for a project of this type and size that was approved by the applicant.

CalEEMod defaults were used for construction equipment, equipment quantities, average hours of equipment use per day, and work schedule for each phase with the client-provided construction start date of July 2021. The default construction schedule produced was approximately 39 months, or 844 construction workdays assuming construction of the Care Center would follow the completion of the residential portions of the project. All construction is estimated to be complete by September 2024, with the first full year of operation of the residential and care center facilities in 2025.

Construction Truck Traffic Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were estimated for demolition material to be exported, soil material imported and/or exported to the site, and cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips for demolition were estimated using CalEEMod defaults for trips per square-foot of building demolished. The square feet for each of

[7] See CARB's EMFAC2017 Web Database at https://www.arb.ca.gov/emfac/2017/

[8] Estimates of independent living units provided on 7-27-20 is 360, 15 units less than the initial estimate on which the air quality analysis is based. This change does not significantly alter the CalEEMod estimates or conclusions.

the existing structures on site was estimated using Google Earth. Likewise, the number of concrete and asphalt total round haul trips were estimated using the project plans provided by the applicant to estimate material volumes and an assumed 10 cubic yards (CY) per material delivery for the project. Concrete/asphalt deliveries were converted to total one-way trips by assuming two trips per delivery.

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2014 motor vehicle emission factor model. This model has been superseded by the EMFAC2017 model. However, CalEEMod has not been updated to include EMFAC2017. The construction traffic information was combined with EMFAC2017 motor vehicle emissions factors. EMFAC2017 provides aggregate emission rates in grams per mile for each vehicle type. The construction traffic vehicle mix for this study was based on CalEEMod default assumptions, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trips, including cement trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling (demolition material export). Since CalEEMod does not address cement or asphalt trucks, these were treated as vendor travel distances. Each trip was assumed to include an idle time of 5 minutes and emissions associated with vehicle starts were also included. EMFAC2017 emission rates from calendar year 2021 for Contra Costa County were used. Table 2 provides the traffic inputs that were combined with the EMFAC2017 emission factors to compute vehicle emissions.

Table 2. Construction Traffic Data Used for EMFAC2017 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker[1]	Total Vendor[1]	Total Haul[2]	
Vehicle mix[1]	69.7% LDA 7.0% LDT1 23.4% LDT2	33.4% MHDT 66.6% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0 (Demo) 7.3 (Cement/Asphalt)	5 Minute Truck Idle Time
Demolition	750	-	27	6,021 sf Existing Building Demo
Site Preparation	540	-	-	
Grading	1,500	-	9,375	75,000 cy Net Soil Export
Trenching	1,500	-	-	
Building Construction[3]	294,130	59,630	3,119	1,560 Cement Truck Deliveries
Architectural Coating[3]	4,840	-	-	
Paving	825	-	695	348 Asphalt Deliveries

Notes:
[1] Based on 2021 EMFAC2017 vehicle fleet mix for Contra Costa County.
[2] Demolition hauling trips estimated by CalEEMod based on existing structure sizes.
[3] Includes Condos, Apartments, and Care Center.

Summary of Computed Construction Period Emissions

Annual emissions were predicted using CalEEMod and EMFAC2017. Average daily emissions were computed by dividing the total construction emissions each year by the number of construction days in that year; 132 in 2021, 262 in 2022/23, and 192 in 2024 (844 construction workdays total). Table 3 shows daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust estimated during construction of the project. As indicated in Table 3, predicted construction period emissions would exceed the BAAQMD significance thresholds for ROG in 2024 and for NO_x in 2021. Thus, enhanced BMPs listed in the BAAQMD CEQA Guidelines are needed to reduce daily project emissions below the significance thresholds.

Table 3. Construction Period Emissions - Unmitigated

Scenario		ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions (tons)	2021 - 2022[1]	0.43 tons	4.36 tons	0.22 tons	0.18 tons
	2022 - 2023	0.47 tons	4.15 tons	0.24 tons	0.18 tons
	2023 - 2024	5.93 tons	2.99 tons	0.18 tons	0.13 tons
	2024 - 2025[1]	5.73 tons	1.98 tons	0.12 tons	0.08 tons
	TOTAL	12.57 tons	13.48 tons	0.76 tons	0.57 tons
Daily Emissions (pounds)	2021 - 2022[1]	6.52 lbs./day	**66.02 lbs./day**	3.30 lbs./day	2.75 lbs./day
	2022 - 2023	3.61 lbs./day	31.67 lbs./day	1.83 lbs./day	1.40 lbs./day
	2023 - 2024	45.27 lbs./day	22.84 lbs./day	1.39 lbs./day	1.00 lbs./day
	2024 - 2025[1]	**59.72 lbs./day**	20.65 lbs./day	1.25 lbs./day	0.87 lbs./day
	AVERAGE	29.78 lbs./day	31.95 lbs./day	1.80 lbs./day	1.38 lbs./day
BAAQMD Thresholds (pounds per day)		***54* lbs./day**	***54* lbs./day**	***82* lbs./day**	***54* lbs./day**
Exceed Threshold?		**Yes**	**Yes**	No	No

Notes: [1]Assumes 132 workdays in 2021 and 192 workdays in 2024.

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 enhanced best management practices to reduce fugitive dust (PM_{10} and $PM_{2.5}$) and ROG. Mitigation Measure AQ-2 would reduce DPM and NO_X as necessary to meet both the NO_X criteria pollutant threshold and the health risk assessment thresholds for cancer risk*.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents, employees, and guests. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. It is also assumed the Care Center will have a 500-kilowatt (kW) diesel-fueled emergency

generator. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

Land Uses

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

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest full year of operation would be 2025 if construction begins in July of 2021. Emissions associated with build-out later than 2025 would be lower than those estimated for 2025.

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate for Continuing Care Retirement Community (Institute of Transportation Engineers Land Use Code 255) were provided by the traffic consultant.[9] 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 to the default weekday rate. Default trip lengths and trip types specified by CalEEMod for each input land use were used for the emissions estimates.

EMFAC2017 Adjustment

As previously described, the vehicle emission factors and fleet mix used in CalEEMod are based on EMFAC2014, which is an older CARB emission model for on-road and off-road mobile sources. Since the release of CalEEMod Version 2016.3.2, a new emission model has been produced by CARB. EMFAC2017 became available for use in March 2018 and approved by the EPA in August 2019. It includes the latest data on California's car and truck fleets and travel activity. Additionally, CARB has recently released EMFAC off-model adjustment factors to account for the Safer Affordable Efficient (SAFE) Vehicle Rule Part one.[10] The SAFE vehicle Rule Part One revoked California's authority to set its own GHG emission standards and set zero emission vehicle mandates in California. As a result of this ruling, mobile criteria pollutant emissions would increase for light-duty vehicles. Therefore, the CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2017, which were adjusted with the CARB EMFAC off-model adjustment factors. On-road emission rates for

[9] Trip rates provided by Loewke Planning Associates, Inc. via the project's traffic consultant (Fehr +Peers), June 30, 2020.

[10] California Air Resource Board, 2019. *EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One*. November 2019 and June 26, 2020. Web: https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf and https://content.govdelivery.com/accounts/CARB/bulletins/292af9a

Contra Costa County, calendar year 2025 were used. More details about the updates in emissions calculation methodologies and data are available in the EMFAC2017 Technical Support documents.[11]

Energy

CalEEMod defaults for energy use were used, which include the 2016 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CalEEMod. CalEEMod has a default emission factor of 641.3 pounds of CO_2 per megawatt of electricity produced, which is based on Pacific Gas and Electric's (PG&E) 2008 emissions rate. However, PG&E published in 2019 emissions rates for 2010 through 2017, which showed the emission rate for delivered electricity had been reduced to 210 pounds CO_2 per megawatt of electricity delivered in the year 2017.[12] This intensity factor was used in the model and it was assumed that all powered was supplied by PG&E.

Project Generators

The project will likely include an emergency diesel generator installed near or within one of the two mechanical buildings. However, the exact size and location of the generator is unknown at the time of this analysis. Therefore, it was assumed that one emergency diesel generator rated at 500-kW with an approximately 670 horsepower (HP) diesel engine. The generators would be tested periodically and power the Care Center in the event of a power failure. For modeling purposes, it was assumed that the generators would be operated primarily for testing and maintenance purposes. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year of non-emergency operation. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. The generator emissions were modeled using CalEEMod.

Other Inputs

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

Existing Uses

A vast majority of the 30.8 acres is currently undeveloped land except for one single-family home. Therefore, no existing land use model was included since operational period emissions would be low for the current land use.

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[11] See CARB 2018: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac

[12] PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

Summary of Computed Operational Period Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimating assuming 365 days of operation. Table 4 shows average daily emissions of ROG, NO_X, total PM_{10}, and total $PM_{2.5}$ during operation of the project. The operational period emissions would not exceed the BAAQMD significance thresholds.

Table 4. Operational Period Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2025 Project Operational Emissions (*tons/year*)	4.08 tons	1.15 tons	1.03 tons	0.32 tons
2025 Existing Site Operational Emissions (*tons/year*)	0.00 tons	0.00 tons	0.00 tons	0.00 tons
Net Annual Emissions (*tons/year*)	4.08 tons	1.15 tons	1.03 tons	0.32 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	No	No	No	No
2025 Project Operational Emissions (*lbs./day*)[1]	22.4 lbs.	6.3 lbs.	5.6 lbs.	1.8 lbs.
BAAQMD Thresholds (lbs./day)	*54 lbs.*	*54 lbs.*	*82 lbs.*	*54 lbs.*
Exceed Threshold?	No	No	No	No

Notes: [1] Assumes 365-day operation.

Mitigation Measure AQ-1: Implement BAAQMD-Recommended Measures to Control Particulate Matter and ROG Emissions during Construction.

Measures to reduce pollutant emissions from construction are recommended to reduce fugitive dust emissions and ensure that short-term health impacts to nearby sensitive receptors are minimized. 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 since emissions of NOx exceed significance thresholds. 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 three times a day and at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

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

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

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

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

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 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. Use interior coatings with no more than 88 grams per liter VOC (i.e., ROG) and exterior coatings with no more than 132 grams per liter VOC (i.e., ROG) to reduce daily emissions by at least 12 percent. Coating must also meet or exceed BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). Alternatively, the project could submit a plan to demonstrate that overall VOC content of architectural coatings would be at least 12 percent below BAAQMD requirements.

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.

9. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.

10. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.

11. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

12. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

13. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.

14. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

Effectiveness of Mitigation Measure AQ-1

Mitigation Measure AQ-1 represents enhanced mitigation measures that would achieve greater than an 80 percent reduction in on-site fugitive PM_{10} and $PM_{2.5}$ emissions. These measures are consistent with recommendations in the BAAMQD CEQA Guidance for providing "best management practices" to control construction emissions. CalEEMod was used to compute emissions associated with a 12 percent reduction in VOC from interior and exterior coatings. This measure would achieve the reductions needed to meet single source ROG emissions thresholds.

Mitigation Measure AQ-2: **Selection of equipment during construction to minimize DPM and NO_X emissions.**

The project shall develop a plan demonstrating that the off-road equipment used onsite to construct the project would achieve a fleet-wide average 72 percent reduction in DPM exhaust emissions or greater and a fleet-wide average 16 percent reduction in NO_X or greater. This is the minimum reduction required to reduce the project impacts (i.e., NO_X emissions and cancer risk) to a less than significant level. The 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 4 interim engines. Where Tier 4 equipment is not available, exceptions could be made for equipment that includes CARB-certified Level 3 Diesel Particulate Filters or equivalent. Equipment that is electrically powered or uses non-diesel fuels would also meet this requirement.

Effectiveness of Mitigation Measure AQ-2

CalEEMod was used to compute emissions associated with construction equipment mitigation measures assuming that all equipment met U.S. EPA Tier 4 Interim engines standards. With the implementation of *Mitigation Measure AQ-2*, NO_X emissions from construction would be reduced by as much as 54 percent in 2021.

Impact: 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 residents, in proximity to an existing source of TACs. This project would introduce new sources of TACs during construction (i.e., on-site construction activity and truck hauling emissions) and operation (i.e., emergency diesel generators). New sensitive receptors would also be introduced to the area.

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would also include the installation of emergency generators powered by diesel engines that would produce TACs and air pollutants emissions.

Therefore, project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. No existing sources of TACs were identified within 1,000 feet of the project. However, the impact of project TAC sources was also analyzed for the new project sensitive receptors for informational purposes.

Community Risk Methodology for Construction and Operation

Community risk impacts were addressed by predicting increased cancer risk, the increase in annual $PM_{2.5}$ concentrations and computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are a combination of construction and operation sources. These sources include on-site construction activity, construction truck hauling, project generators, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period was assumed with the sensitive receptors being exposed to project both construction and operation during this timeframe.

The project increased cancer risk is computed by summing the project construction and operation contribution. Unlike the increased maximum cancer risk, the annual $PM_{2.5}$ concentration, and HI values are not additive but based on an annual maximum risk for the entirety of the project. The project MEI is identified as the sensitive receptor that is most impacted by the project's construction and operation.

The methodology for computing community risks impacts is contained in *Attachment 1*. This involved the modeling of TAC and $PM_{2.5}$ emissions, dispersion modeling and cancer risk computations

Community Risks from Project Construction

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Although it was concluded in the previous sections (see Table 3) that construction exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations, construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issue associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. 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 $PM_{2.5}$.[13]

Construction Period Emissions

The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment, while EMFAC2017 was used to estimate emissions from on-road activities. On-road emissions are a result of haul truck travel during demolition and grading

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

activities, worker travel, and vendor deliveries during construction. A trip length of one (1) mile was used to represent vehicle travel while at or near the construction site. It was assumed emissions from on-road vehicles traveling at or near the site would occur at the construction site. The total emissions from construction (on and off road) was estimated to be approximately 0.50 tons (994 pounds). Fugitive $PM_{2.5}$ dust emissions were calculated in the same way described above and estimated to be approximately 0.3 tons (590 pounds).

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (i.e., residents, school children, elderly) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling ambient impacts of these types of emission activities for CEQA projects.[14] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions. Combustion equipment exhaust emissions were modeled as a series of point sources with a 9-foot release height (construction equipment exhaust stack height) placed at 16.4-feet (14-meter) intervals throughout the construction site. This resulted in 626 individual point sources being used to represent mobile equipment DPM exhaust emissions in the construction area, with DPM emissions occurring throughout the project construction site. Construction fugitive $PM_{2.5}$ dust emissions were modeled as an area source encompassing the entire construction site with a near ground level release height of 7 feet (2 meters). Construction emissions were modeled as occurring daily between 7:00 a.m. to 4:00 p.m. when most of the construction activity would occur.

The modeling used a five-year data set (2012-2015 and 2017) of hourly meteorological data from Buchanan Field Airport in Concord, CA that was prepared for use with the AERMOD model by BAAQMD. The Buchanan Field is approximately 4.4 miles north from the project site. Annual DPM and $PM_{2.5}$ concentrations from construction activities during four construction periods (2021-2022, 2022-2023, 2023-2024, and 2024-2025) were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptors. A receptor height of 5 feet (1.5 meters) was used to represent the breathing height at nearby single-family homes while and 3.3 feet (1 meter) was used to represent the breathing height of students at the Seven Hills School. There are no multi-family housing developments (i.e., apartment buildings or townhomes) near the project site. Terrain elevations (USGS 7.5 min DEM) were also input into the model.

Project Construction Community Risk 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 4* to

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

this report includes the emission calculations used for the construction area source modeling and the cancer risk calculations.

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

Results of this assessment indicated that the construction MEI was located at a single-family residence adjacent to the southeastern boundary of the project site near Adirondack Way (as seen in Figure 1). The unmitigated maximum increased cancer risk from construction was 14.18 per million. The maximum annual $PM_{2.5}$ concentration from construction occurred at the Seven Hills School, adjacent to the northern boundary of the project (as seen in Figure 1) and was estimated to be 0.18 $\mu g/m^3$ occurring during the 2021-2022 construction period. Cancer risk at the construction MEI exceeds the BAAQMD single-source thresholds of greater than 10.0 in a million. With the incorporation of *Mitigation Measure AQ-1 and AQ-2,* the increased project cancer risk would not exceed the single-source threshold. Both the unmitigated and mitigated maximum annual $PM_{2.5}$ concentration and non-cancer hazards (HI) from construction would not exceed their BAAQMD single-source thresholds of greater than 0.3 $\mu g/m^3$ and 1.0, respectively. Table 5 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and health hazard indexes for project related construction activities.

Table 5. Construction Risk Impacts at the Off-site Residential MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Construction	Unmitigated	**14.2** [2]	0.18	0.01
	Mitigated[1]	1.6 [2]	0.07	<0.01
BAAQMD Single-Source Threshold		***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	Unmitigated	***Yes***	*No*	*No*
	Mitigated[1]	*No*	*No*	*No*

[1] Mitigation Measures include construction equipment engines with Tier 4 Interim emissions limits. [2] 3rd Trimester to Adulthood.

The annual DPM at the Seven Hills School was also evaluated as part of the analysis. The maximum unmitigated cancer risk at the school would be 4.6 in a million, which is below the BAAQMD single source threshold. *Mitigation Measure AQ-1 and AQ-2* would further reduce the maximum cancer risk to 0.65 in a million, well below the single source threshold.

Community Risks from Project Operation – Generators

Operation of the project would have long-term emissions from a stationary source (i.e., emergency generator). While these emissions would not be as intensive at or near the site as construction activity, they would contribute to the project's long-term effects to sensitive receptors.

Operation of a diesel generator would be a source of TAC emissions. As stated above, the project is assumed to include on 500 kW (670 HP) emergency diesel generator that would be located adjacent to the mechanical building and provide for back-up power to the Care Center. Figure 1 shows the location of the mechanical building and the modeled generator.

Diesel engines are subject to CARB's Stationary Diesel Airborne Toxics Control Measure (ATCM) and require permits from the BAAQMD since it will be larger than 50 hp. As part of the BAAQMD permit requirements for toxics screening analysis, the engine emissions will have to meet Best Available Control Technology for Toxics (TBACT) and pass the toxic risk screening level of less than ten in a million. The risk assessment would be prepared by BAAQMD. Depending on results, BAAQMD would set limits for DPM emissions (e.g., more restrictive engine operation periods). Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality community risk impact.

The emergency generator proposed by the project was evaluated for its health impacts at the generator's location of maximum off-site impact (i.e., the off-site MEI for the generator). Figure 1 shows the location of the MEI and the location of the proposed emergency generator.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to calculate the maximum annual DPM concentration at off-site sensitive receptor locations (shown in Figure 1) which were used estimate the potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generator. The same receptors and breathing heights used in the construction dispersion modeling (i.e., 1.5 m) were used for the generator dispersion model. Additionally, the same meteorological data was used. Stack parameters (stack height, stack diameter, exhaust flow rate, and exhaust gas temperature) for modeling the generators were based on BAAQMD default parameters for emergency generators.[15] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day. Terrain elevations (USGS 7.5 min DEM) and maintenance building dimensions were input into the model to account for their respective impacts on plume dispersion.

Computed Risks and Hazards from Project Generators

Increased cancer risks from use of the generator were calculated using the modeled maximum annual DPM concentrations and BAAQMD recommended risk assessment methods and parameters described in *Attachment 1*. The $PM_{2.5}$ concentration and non-cancerous (i.e., Hazard Index) health risk impacts were also calculated. The health risk calculations and emissions for the proposed generator are included in *Attachments 4 and 5*, respectively.

Table 6 shows the health risk impacts of the proposed emergency generator at its MEI location. Cancer risk at the generator MEI would not exceed the BAAQMD single source thresholds for cancer risk, annual $PM_{2.5}$ concentration, or HI.

Table 6. Emergency Generator Operation Risk Impacts at Offsite MEIs

Location	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Generator MEI – Single Family Home	1.03 [1]	<0.01	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold? Generator MEI	*No*	*No*	*No*

[1] 3rd Trimester to Adulthood.

Project-Related Community Risks at Offsite MEI

The sensitive receptor identified as the construction MEI is the overall project MEI, as the combined health impacts from both construction and operation of the emergency generator at this location are the greatest. The project MEI would be exposed to five years of construction emissions and 25 years of operational (emergency backup generator) emissions. The cancer risks, annual $PM_{2.5}$ concentrations, and HI values associated with construction and operation of generator are provided in Table 7. The annual $PM_{2.5}$ concentration, and HI values are based on an annual

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

maximum risk for the entirety of the project. The emissions and health risk calculations for the proposed generator at the project MEI are included in *Attachment 4*.

Table 7. Construction and Operation Risk Impacts at the Offsite Project MEI

Source	Cancer Risk (per million)[1]	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Unmitigated Project Construction (Years 0-4)	**14.18**	0.15	0.01
Mitigated Project Construction (Years 0-4)	1.61	0.05	<0.01
Project Generator (Years 5-30)	0.41	<0.01	<0.01
Unmitigated Total/Maximum Project (Years 0-30)	**14.59**	0.15	0.01
Mitigated Total/Maximum Project (Years 0-30)	2.02	0.05	<0.01
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?			
Unmitigated	***Yes***	*No*	*No*
Mitigated	*No*	*No*	*No*

[1] 3rd Trimester to Adulthood.

The project's unmitigated maximum cancer risks from construction and operation activities would exceed the single-source significance thresholds. However, implementing *Mitigation Measures AQ-1 and AQ-2* will reduce the cancer risk to levels below the BAAQMD single-source significance thresholds. Both the unmitigated and mitigated annual $PM_{2.5}$ concentration and non-cancer hazards (HI) from construction and operation activities would not exceed the single-source significance thresholds. Therefore, the project's cancer risk and health hazards would not exceed BAAQMD single-source thresholds as long as *Mitigation Measures AQ-1 and AQ-2* are implemented.

Review of Existing Nearby TAC Sources on the Off-Site Project MEI

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of the project site (i.e., influence area). These sources include railroads, freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. A review of the project area indicated there are no roadways within the influence area that have an average daily traffic (ADT) over 10,000 vehicles. Additionally, a review of BAAQMD's *Permitted Stationary Sources 2018* GIS website[16] map indicates there are no existing stationary sources of TACs within the site's 1,000-foot influence area. Figure 2 shows the project site and its 1,000-foot influence area.

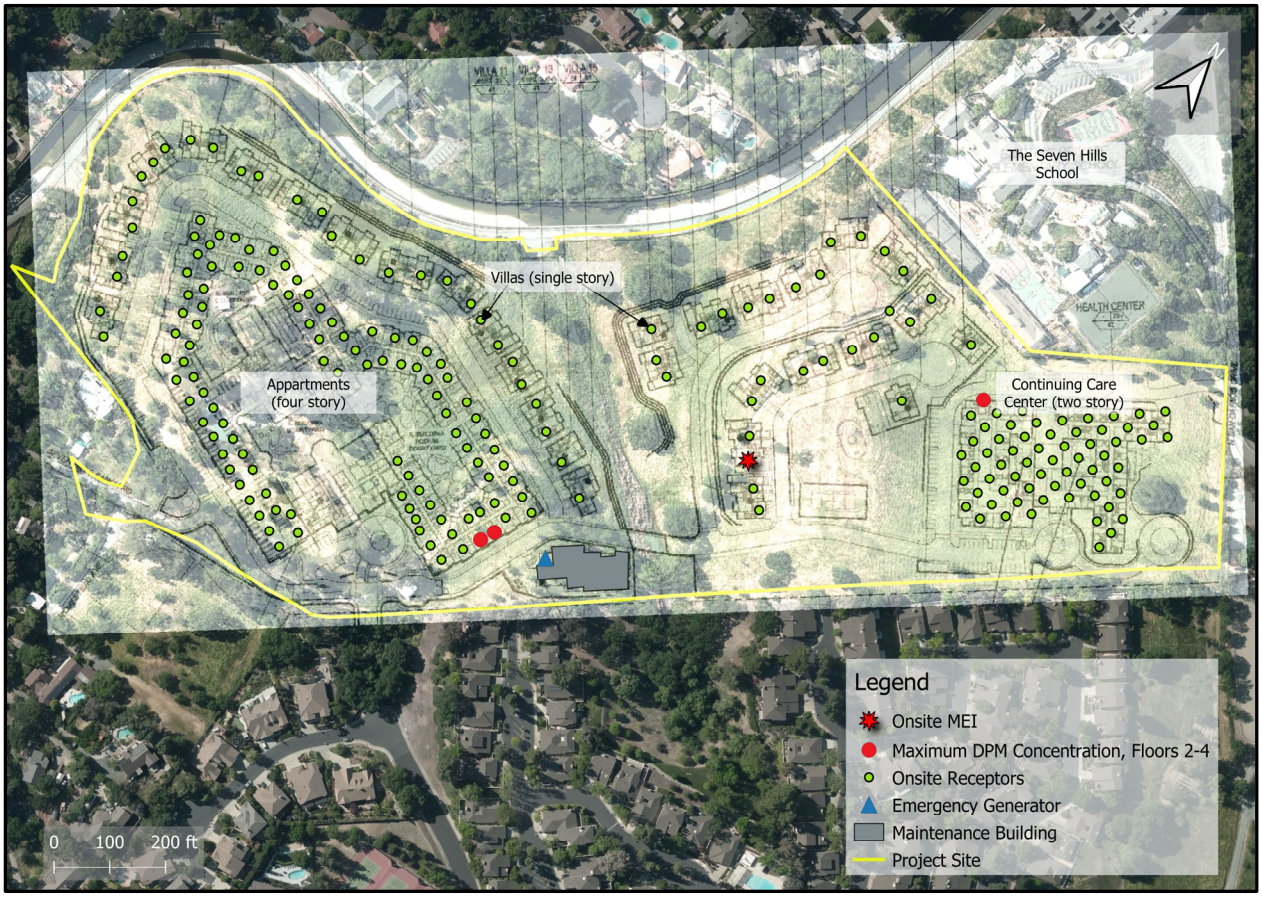
[16] BAAQMD, https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

Figure 2. Project Construction Site and 1,000-Foot Influence Area

Exposure of New Project Residents to New TAC Source (Non-CEQA):

Additionally, a health risk assessment was completed to analyze the impact the new TAC source (i.e., emergency diesel generator) would have on the new proposed sensitive receptors (i.e. senior residents) that that project would introduce. Per *CBIA v. BAAQMD*, lead agencies are not required to analyze the impacts of existing conditions on a project's future residents. However, a community risk assessment was completed for the project's receptors for informational purposes only. The new generator previously described above was used in this health risk assessment. Figure 3 shows the new TAC source (i.e., generator) and the on-site residential sensitive receptors that would be introduced by the project. *Attachment 5* includes the dispersion modeling and risk calculations for the emergency diesel generator impacts upon the proposed on-site sensitive receptors.

Figure 3. Project Site and Onsite Residential Receptors, Emergency Generator Evaluated, and Location of Maximum On-Site TAC Impacts



Project Generator

The U.S. EPA AERMOD dispersion model was used to estimate potential cancer risks and $PM_{2.5}$ impacts from operation of the emergency generator and calculate the maximum annual DPM concentration at the new sensitive receptors created by the project (i.e., senior residents). The same model inputs previously used for maintenance building downwash, terrain, receptor breathing heights, and meteorological data were used were used for the assessment of new on-site residents. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the generator were estimated based on BAAQMD default parameters for emergency generators.[17] Annual average DPM and $PM_{2.5}$ concentrations were modeled assuming that generator testing could occur at any time of the day.

Receptors representing the single-story villas were modeled as single-floor receptors (i.e., 1.5 m heights). The two-story Health Care Center was modeled using receptor heights of 1.5 meters and 4.2 meters, based on the planned building elevations. The four-story apartment building was

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

modeled with receptor heights of 1.5 meters, 4.2 meters, 7.0 meters, and 10.4 meters based on the building's floor heights and an individual breathing height of 1.5 meters.

Computed Risks and Hazards from Project Generators

Increased cancer risk to on-site residents from the use of the emergency generator was calculated using the modeled maximum annual DPM concentrations and BAAQMD recommended risk assessment methods and parameters described in *Attachment 1*. The $PM_{2.5}$ concentration and HI impacts were also calculated. Maximum on-site concentrations from the generator operation occurred at a villa to the northeast of the maintenance building and generator (See Figure 3). An exposure duration of 30 years was used to calculate the increased cancer risk from the generator. The results are listed in Table 8. The emissions and health risk calculations for the proposed generators are included in *Attachment 5*.

Table 8. Onsite Impacts from Operation of Proposed Emergency Generator

Location	Maximum Cancer Risk (per million)	Maximum Annual $PM_{2.5}$ ($\mu g/m^3$)	Maximum Hazard Index
Onsite MEI (villa)	0.37	<0.01	<0.001
Health Care Center - Floor 2 Maximum	0.12	<0.01	<0.001
Apartment – Floor 3 Maximum	0.04	<0.01	<0.001
Apartment – Floor 3 Maximum	0.07	<0.01	<0.001
BAAQMD Single-Source Threshold	***>10.0***	***>0.3***	***>1.0***
Exceed Threshold?	*No*	*No*	*No*

Review of Existing Nearby TAC Sources on the Onsite MEI

As previously discussed, a review of the project area indicated there are no existing sources of TACs within the site's 1,000-foot influence area (see Figure 2). Therefore, there are no significant sources of TACs to add to the health risks of the onsite MEI.

Health Risk Assessment Findings and Summary

Unmitigated maximum increased cancer risks from the project's construction activities would exceed the BAAQMD single-source significance threshold. However, with the incorporation of *Mitigation Measure AQ-1 and AQ-2,* the BAAQMD single-source thresholds would not be exceed. Both the unmitigated and mitigated annual $PM_{2.5}$ concentration and non-cancer hazards (HI) from construction activities would be below the single-source significance thresholds of less than 0.3 $\mu g/m^3$ and less than 1.0, respectively. Therefore, mitigation is not required to meet $PM_{2.5}$ concentration or non-cancer hazard criteria.

Unmitigated operation of the project's emergency generator would not exceed single-source significance thresholds for increased cancer risks or maximum $PM_{2.5}$ concentrations. The generator would have a maximum increased cancer risk of 1.03 in a million and a maximum $PM_{2.5}$ concentration impact of less than 0.01 $\mu g/m^3$. Both the unmitigated and mitigated non-cancer hazards from operation activities would be below the single-source significance threshold of 1.0.

The project would not exceed any cumulative source thresholds for increased cancer risks, maximum $PM_{2.5}$ concentrations, or non-cancer hazards. There are no existing TAC sources within 1,000 feet of the project site and the new source of TACs established by the project (i.e., emergency generator) would not exceed single source thresholds.

Effectiveness of Mitigation Measures AQ-1 and AQ-2

CalEEMod was used to compute emissions associated with these mitigation measures assuming that all equipment met U.S. EPA Tier 4 Interim engines standards. With the implementation of *Mitigation Measure AQ-1*and *Mitigation Measure AQ-2*, the project cancer risk levels and annual $PM_{2.5}$ concentrations would be reduced such that they would not exceed the BAAQMD single-source significance thresholds. The computed maximum increased residential cancer risk from construction with both mitigation measures in place, assuming infant exposure, would be 1.6 in one million or less and the maximum annual $PM_{2.5}$ concentration would be reduced to 0.07 $\mu g/m^3$.

Impact: Create objectionable odors affecting a substantial number of people?

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off-site by resulting in confirmed odor complaints. The project would not include any sources of significant odors that would cause complaints from surrounding uses.

Conclusions

Unmitigated construction activities would result in exceedances of the BAAQMD single source thresholds for ROG, NO_X, and cancer risk. Therefore, *Mitigation Measures AQ-1 and AQ-2* outlined in this report are recommended to reduce construction impacts below single source thresholds. The analysis provided in this report supports the conclusion that by implementing both mitigation measures, project impacts due to construction would be reduced to levels below the significance thresholds established by BAAQMD.

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, CH_4, 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 for GHG Emissions

Executive Order S-3-05 – California GHG Reduction Targets

Executive Order (EO) S-3-05 was signed by Governor Arnold Schwarzenegger in 2005 to set GHG emission reduction targets for California. The three targets established by this EO are as follows: (1) reduce California's GHG emissions to 2000 levels by 2010, (2) reduce California's GHG emissions to 1990 levels by 2020, and (3) reduce California's GHG emissions by 80 percent below 1990 levels by 2050.

Assembly Bill 32 – California Global Warming Solutions Act (2006)

Assembly Bill (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, which has a target of reducing GHG emissions 80 percent below 1990 levels.

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, due to 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.

Executive Order B-30-15 & Senate Bill 32 GHG Reduction Targets – 2030 GHG Reduction Target

In April 2015, Governor Brown signed EO B-30-15, 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 Senate Bill (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*. [18] 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

[18] California Air Resource Board, 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Targets.* November. Web: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf

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 bikeable 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.

Executive Order B-55-18 – Carbon Neutrality

In 2018, a new statewide goal was established to achieve carbon neutrality as soon as possible, but no later than 2045, and to maintain net negative emissions thereafter. CARB and other relevant state agencies are tasked with establishing sequestration targets and create policies/programs that would meet this goal.

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.

Senate Bill 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.

Senate Bill 100 – Current Renewable Portfolio Standards

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2017 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

California Building Standards Code – Title 24 Part 11 & Part 6

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[19] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2019 California Building Standard Code) was effective as of January 1, 2020.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2019 Energy Code) replaced the 2016 Energy Code as of January 1,2020. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic

[19] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.

systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[20]

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2018, total gross nationwide GHG emissions were 6,676.6 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[21] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.[22] 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 computed for the year 2011.[23] The Bay Area GHG emission were 87 MMT. As a point of comparison, statewide emissions were about 444 MMT in 2011.

Contra Costa County Climate Action Plan

The Contra Costa County Board of Supervisors adopted the county's current Climate Action Plan (CAP) on December 15, 2015.[24] The Climate Action Plan is a qualified plan and demonstrates the county's commitment to addressing the challenges of climate change. The CAP outlines the county's overall strategies for reducing greenhouse gas emissions in response to state regulations to address climate change. The CAP outlines ways in which the county can prepare for and adapt to the consequences of climate change, and provides energy use, transportation, land use, and solid waste strategies to reduce Contra Costa's GHG emissions. The CAP has a GHG reduction target of 15% from 2005 levels by the year 2020. In addition, the CAP forecasts the potential GHG emissions and estimated GHG reductions from proposed measures through 2035 to the level specified in EO B-30-15. Such a goal is equal to 50% below 1990 levels, or approximately 57% below baseline levels.

As part of the CAP, the county developed a development checklist (i.e., Appendix E to the CAP) to help both project applicants and County staff determine where a proposed new development project is consistent with Contra Costa County's CAP. The checklist should be completed for each project subject to discretionary review. The criterion in the checklist clarifies implementation of the CAP and explain how a project can comply. The checklist is provided in Attachment 6.

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[20] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
[21] United States Environmental Protection Agency, 2020. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018*. April. Web: https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf
[22] CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Web: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf
[23] BAAQMD. 2015. *Bay Area Emissions Inventory Summary Report: Greenhouse Gases Base Year 2011*. January. Web: http://www.baaqmd.gov/~/media/files/planning-and-research/emission-inventory/by2011_ghgsummary.pdf accessed Nov. 26, 2019.
[24] Contra Costa County. December 15, 2015.*Climate Action Plan.* https://www.contracosta.ca.gov/DocumentCenter/View/39791/Contra-Costa-County-Climate-Action-Plan

BAAQMD Significance Thresholds

For quantified emissions, the BAAQMD's CEQA Air Quality 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 2.8 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.[25] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_{2e}/year threshold.

Impact: 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 full-time employees. Based on air quality analyses for Spieker projects like this one, there are an average of 1.44 persons per household.[26] However, this project is planning for 460 total residential units with a persons per household of 1.28. Therefore, it is estimated the total residents living at the development will be approximately 560. The number of future employees is estimated to be 250 based on Spieker's San Juan Capistrano project.[27] Thus, the total service population is estimated to be 810 individuals.

[25] 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.
[26] Appendix C, Air Quality and Greenhouse Gas Emissions Analysis. *Draft Environmental Impact Report Speiker CCRC specific Plan City of San Juan Capistrano.* LSA Associates, Inc. June 2014.
[27] See 25 above.

Construction Emissions

GHG emissions associated with construction were computed to be 3,062 MT of CO_2e for the total construction period (2021-2024), with the highest annual GHG emissions estimate being 975 MT of CO2e for the 2022-2023 construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the County 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 8, the net annual emissions resulting from operation of the proposed project are predicted to be 1,811 MT of CO_2e in 2025 and 1,726 MT of CO_{2e} in 2030. The service population emission for the years 2025 and 2030 are predicted to be 2.2 and 2.1 MT/CO_{2e}/year/service population, respectively.

To be considered an exceedance, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold. As shown in Table 7, the project would exceed both the 660 MT CO_2e/year bright-line threshold in 2025 and 2030, but not the per capita threshold.

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

Source Category	Proposed Project	
	2025	**2030**
Area	25	25
Energy Consumption	742	742
Mobile	870	784
Solid Waste Generation	133	133
Water Usage	42	42
Total (MT CO_{2e}/yr)	1,811	1,726
Net Emissions	1,811 MT CO_{2e}/year	1,726 MT CO_{2e}/year
Bright-Line Significance Threshold	***660 MT CO_2e/year***	
Service Population Emissions (MT CO2e/year/service population)	2.2	2.1
Per Capita Significance Threshold	***2.8 MT of CO2e/year/service population in 2030***	
Exceed both thresholds?	*No*	*No*

Impact: 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, by completing Contra Costa's Development Checklist (see Attachment 6), the project would demonstrate compliance with the county's CAP and applicable GHG emissions reduction goals. The project would also be subject to local policies that may affect GHG emissions.

Conclusions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Neither the County nor BAAQMD have an adopted threshold of significance for construction related GHG emissions, and while the BAAQMD bright-line significance threshold for GHG emissions during operation would be exceeded, the per capita significance threshold would not be exceeded, based on emissions modeling. Additionally, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

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 modeling assumptions and output for project construction and operational criteria air pollutant and GHG emissions. The operational outputs for existing and 2030 uses are also included in this attachment.

Attachment 3 includes the EMFAC2017 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

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

Attachment 5 includes the health risk calculations for operating the emergency generator.

Attachment 6 includes the Contra Costa CAP's Development Checklist.

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.[28] 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.[29] 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.[30] 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 is 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) or liters per kilogram of body weight per 8-hour period for the case of worker or school child exposures. 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 8-hour breathing rates. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults,

[28] 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.
[29] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.
[30] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

a 25-year exposure period is recommended by the BAAQMD. For school children a 9-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 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)
8HrBR = 8-hour breathing rate (L/kg body weight-8 hours)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

* An 8-hour breathing rate (8HrBR) is used for worker and school child exposures.

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 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95th Percentile Rate		-	1,200	520	240
Inhalation Absorption Factor		1	1	1	1
Averaging Time (years)		70	70	70	70
Exposure Duration (years)		0.25	2	14	14*
Exposure Frequency (days/year)		350	350	350	350*
Age Sensitivity Factor		10	10	3	1
Fraction of Time at Home (FAH)		0.85-1.0	0.85-1.0	0.72-1.0	0.73*

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. 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 Output

Spieker Senior Continuing Care Community - Walnut Creek

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	383.00	Space	0.00	138,074.00	0
Parking Lot	112.00	Space	0.00	46,500.00	0
Parking Lot	99.00	Space	0.00	46,500.00	0
Apartments Low Rise	320.00	Dwelling Unit	30.80	550,000.00	915
Condo/Townhouse	55.00	Dwelling Unit	0.00	110,000.00	157
Congregate Care (Assisted Living)	100.00	Dwelling Unit	0.00	87,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factor based on 2017 PG&E Published report

Land Use - Land uses per project description and conversation with Mike Loewke on 6-25-20. Sq ft from construction data sheet provided by client.

Construction Phase - CalEEMod Default for Building Construction and Coatings of CC Center and Condos/Appartments

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Grading

Trips and VMT - Concrete and asphalt haul trip length = vendor length. Concrete and Asphalt haul trips estimated from site plans. See trips .CSV file for trip info.

Demolition - Based on Estimate from Google Earth

Grading - Per email 7-28-20, material export = 75,000 CY. cut = fill. No import/export. Site is 30.4 acres

Vehicle Trips - Based on daily trip rate of 2.399 per DU (ITE LU Code 255). Sat and Sun based on composite ratio of weekday to Sat/Sun CalEEMod Defaults applied to provided weekday rate.

Vehicle Emission Factors - From EMFAC2017 for CC County, 2025

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood burning hearths. Gas only.

Energy Use -

Water And Wastewater - Assume 100% WWTP

Construction Off-road Equipment Mitigation - Typical Mitigation Scenario

Stationary Sources - Emergency Generators and Fire Pumps - Assume the CC Center will have an emergency generator.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	35.00	20.00
tblConstructionPhase	NumDays	500.00	440.00
tblConstructionPhase	NumDays	500.00	230.00
tblConstructionPhase	NumDays	30.00	50.00
tblConstructionPhase	NumDays	45.00	75.00
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	20.00	30.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	48.00	102.40

tblFireplaces	NumberGas	8.25	17.60
tblFireplaces	NumberGas	15.00	32.00
tblFireplaces	NumberWood	54.40	0.00
tblFireplaces	NumberWood	9.35	0.00
tblFireplaces	NumberWood	17.00	0.00
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
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tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02

tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004

tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblGrading	AcresOfGrading	187.50	30.80
tblGrading	MaterialExported	0.00	75,000.00
tblLandUse	LandUseSquareFeet	153,200.00	138,074.00
tblLandUse	LandUseSquareFeet	44,800.00	46,500.00
tblLandUse	LandUseSquareFeet	39,600.00	46,500.00
tblLandUse	LandUseSquareFeet	320,000.00	550,000.00
tblLandUse	LandUseSquareFeet	55,000.00	110,000.00
tblLandUse	LandUseSquareFeet	100,000.00	87,000.00
tblLandUse	LotAcreage	3.45	0.00
tblLandUse	LotAcreage	1.01	0.00
tblLandUse	LotAcreage	0.89	0.00
tblLandUse	LotAcreage	20.00	30.80
tblLandUse	LotAcreage	3.44	0.00
tblLandUse	LotAcreage	6.25	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripLength	20.00	7.30

tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripNumber	27.00	0.00
tblTripsAndVMT	HaulingTripNumber	9,375.00	0.00
tblTripsAndVMT	VendorTripNumber	89.00	0.00
tblTripsAndVMT	VendorTripNumber	89.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	439.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	439.00	0.00
tblTripsAndVMT	WorkerTripNumber	88.00	0.00
tblTripsAndVMT	WorkerTripNumber	88.00	0.00
tblVehicleEF	HHD	0.40	0.02
tblVehicleEF	HHD	0.04	0.05
tblVehicleEF	HHD	0.08	0.00
tblVehicleEF	HHD	1.55	6.26
tblVehicleEF	HHD	0.84	0.40
tblVehicleEF	HHD	2.84	5.2340e-003
tblVehicleEF	HHD	4,274.18	1,019.51
tblVehicleEF	HHD	1,530.13	1,381.70
tblVehicleEF	HHD	8.79	0.04
tblVehicleEF	HHD	13.50	5.29
tblVehicleEF	HHD	1.84	2.65
tblVehicleEF	HHD	19.73	2.36
tblVehicleEF	HHD	7.0080e-003	2.5120e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.1110e-003	0.02

tblVehicleEF	HHD	9.3000e-005	1.0000e-006
tblVehicleEF	HHD	6.7050e-003	2.4040e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8130e-003	8.8700e-003
tblVehicleEF	HHD	5.8460e-003	0.02
tblVehicleEF	HHD	8.6000e-005	1.0000e-006
tblVehicleEF	HHD	7.3000e-005	2.0000e-006
tblVehicleEF	HHD	3.8850e-003	7.5000e-005
tblVehicleEF	HHD	0.40	0.42
tblVehicleEF	HHD	4.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	3.2900e-004	4.0500e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	9.4890e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.3400e-004	0.00
tblVehicleEF	HHD	7.3000e-005	2.0000e-006
tblVehicleEF	HHD	3.8850e-003	7.5000e-005
tblVehicleEF	HHD	0.47	0.49
tblVehicleEF	HHD	4.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.14	0.07
tblVehicleEF	HHD	3.2900e-004	4.0500e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	LDA	3.0000e-003	1.5730e-003
tblVehicleEF	LDA	4.0030e-003	0.04
tblVehicleEF	LDA	0.45	0.49
tblVehicleEF	LDA	0.96	2.08
tblVehicleEF	LDA	219.81	238.61
tblVehicleEF	LDA	50.69	50.67
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.05	0.16
tblVehicleEF	LDA	1.6530e-003	1.2790e-003
tblVehicleEF	LDA	2.2670e-003	1.6650e-003
tblVehicleEF	LDA	1.5230e-003	1.1780e-003
tblVehicleEF	LDA	2.0840e-003	1.5310e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.09
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	7.5490e-003	5.7690e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.05	0.19
tblVehicleEF	LDA	2.2000e-003	9.2000e-005
tblVehicleEF	LDA	5.2300e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.09
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	0.01	8.3830e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	6.0950e-003	3.3010e-003
tblVehicleEF	LDT1	9.7950e-003	0.06
tblVehicleEF	LDT1	0.80	0.79
tblVehicleEF	LDT1	2.08	2.26
tblVehicleEF	LDT1	276.40	287.47
tblVehicleEF	LDT1	64.55	61.73
tblVehicleEF	LDT1	0.08	0.06
tblVehicleEF	LDT1	0.11	0.22
tblVehicleEF	LDT1	2.0320e-003	1.5620e-003
tblVehicleEF	LDT1	2.8410e-003	2.0750e-003
tblVehicleEF	LDT1	1.8700e-003	1.4370e-003

tblVehicleEF	LDT1	2.6130e-003	1.9080e-003
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.20	0.16
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.13	0.60
tblVehicleEF	LDT1	0.13	0.28
tblVehicleEF	LDT1	2.7720e-003	2.8310e-003
tblVehicleEF	LDT1	6.8100e-004	0.00
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.20	0.16
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.13	0.60
tblVehicleEF	LDT1	0.14	0.31
tblVehicleEF	LDT2	4.0660e-003	2.5820e-003
tblVehicleEF	LDT2	5.2330e-003	0.06
tblVehicleEF	LDT2	0.58	0.67
tblVehicleEF	LDT2	1.23	2.66
tblVehicleEF	LDT2	310.89	304.91
tblVehicleEF	LDT2	71.95	65.78
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.09	0.24
tblVehicleEF	LDT2	1.6890e-003	1.3170e-003
tblVehicleEF	LDT2	2.3480e-003	1.6630e-003
tblVehicleEF	LDT2	1.5530e-003	1.2120e-003
tblVehicleEF	LDT2	2.1590e-003	1.5290e-003
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	0.04	0.06

tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.42
tblVehicleEF	LDT2	0.07	0.27
tblVehicleEF	LDT2	3.1120e-003	0.01
tblVehicleEF	LDT2	7.4000e-004	9.8000e-005
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.42
tblVehicleEF	LDT2	0.08	0.30
tblVehicleEF	LHD1	4.7260e-003	4.6450e-003
tblVehicleEF	LHD1	0.01	7.8330e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.93	0.72
tblVehicleEF	LHD1	2.17	0.97
tblVehicleEF	LHD1	9.14	9.02
tblVehicleEF	LHD1	674.80	764.24
tblVehicleEF	LHD1	29.28	10.67
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	1.28	0.85
tblVehicleEF	LHD1	0.90	0.29
tblVehicleEF	LHD1	9.3600e-004	9.3500e-004
tblVehicleEF	LHD1	0.01	9.9160e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	8.1200e-004	2.2400e-004
tblVehicleEF	LHD1	2.5620e-003	2.4790e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	7.4700e-004	2.0600e-004

tblVehicleEF	LHD1	2.2070e-003	1.7030e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2810e-003	9.8600e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.31	0.51
tblVehicleEF	LHD1	0.22	0.06
tblVehicleEF	LHD1	9.1000e-005	8.7000e-005
tblVehicleEF	LHD1	6.6090e-003	7.4500e-003
tblVehicleEF	LHD1	3.3400e-004	1.0600e-004
tblVehicleEF	LHD1	2.2070e-003	1.7030e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.2810e-003	9.8600e-004
tblVehicleEF	LHD1	0.15	0.12
tblVehicleEF	LHD1	0.31	0.51
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD2	2.9550e-003	2.8090e-003
tblVehicleEF	LHD2	6.6120e-003	6.5690e-003
tblVehicleEF	LHD2	5.0900e-003	6.7610e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.53	0.61
tblVehicleEF	LHD2	0.98	0.53
tblVehicleEF	LHD2	14.09	14.16
tblVehicleEF	LHD2	694.99	742.13
tblVehicleEF	LHD2	22.29	6.88
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.65	0.87
tblVehicleEF	LHD2	0.37	0.16
tblVehicleEF	LHD2	1.2210e-003	1.4850e-003

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.5900e-004	1.0800e-004
tblVehicleEF	LHD2	1.1680e-003	1.4200e-003
tblVehicleEF	LHD2	2.7070e-003	2.7120e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.3000e-004	9.9000e-005
tblVehicleEF	LHD2	5.9500e-004	7.5900e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7500e-004	4.6000e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.05	0.20
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	1.3700e-004	1.3500e-004
tblVehicleEF	LHD2	6.7520e-003	7.1570e-003
tblVehicleEF	LHD2	2.4000e-004	6.8000e-005
tblVehicleEF	LHD2	5.9500e-004	7.5900e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.7500e-004	4.6000e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.05	0.20
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	MCY	0.46	0.33
tblVehicleEF	MCY	0.16	0.26
tblVehicleEF	MCY	19.39	19.68
tblVehicleEF	MCY	10.25	9.10
tblVehicleEF	MCY	173.87	213.27
tblVehicleEF	MCY	45.18	61.41

tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1180e-003	2.0620e-003
tblVehicleEF	MCY	3.6410e-003	2.9910e-003
tblVehicleEF	MCY	1.9790e-003	1.9270e-003
tblVehicleEF	MCY	3.4250e-003	2.8130e-003
tblVehicleEF	MCY	0.87	1.78
tblVehicleEF	MCY	0.72	0.73
tblVehicleEF	MCY	0.54	1.11
tblVehicleEF	MCY	2.25	2.27
tblVehicleEF	MCY	0.57	1.99
tblVehicleEF	MCY	2.22	1.97
tblVehicleEF	MCY	2.1220e-003	2.1100e-003
tblVehicleEF	MCY	6.8500e-004	6.0800e-004
tblVehicleEF	MCY	0.87	1.78
tblVehicleEF	MCY	0.72	0.73
tblVehicleEF	MCY	0.54	1.11
tblVehicleEF	MCY	2.79	2.81
tblVehicleEF	MCY	0.57	1.99
tblVehicleEF	MCY	2.41	2.14
tblVehicleEF	MDV	7.8070e-003	3.3980e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	0.90	0.76
tblVehicleEF	MDV	2.48	2.96
tblVehicleEF	MDV	427.63	377.10
tblVehicleEF	MDV	98.24	80.51
tblVehicleEF	MDV	0.11	0.07
tblVehicleEF	MDV	0.22	0.30
tblVehicleEF	MDV	1.7360e-003	1.4070e-003
tblVehicleEF	MDV	2.3850e-003	1.7290e-003

tblVehicleEF	MDV	1.5990e-003	1.2980e-003
tblVehicleEF	MDV	2.1930e-003	1.5900e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.18	0.35
tblVehicleEF	MDV	4.2800e-003	3.6160e-003
tblVehicleEF	MDV	1.0260e-003	7.7300e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	8.5200e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.32	0.75
tblVehicleEF	MH	4.77	1.88
tblVehicleEF	MH	1,207.96	1,486.32
tblVehicleEF	MH	57.74	17.29
tblVehicleEF	MH	1.27	1.47
tblVehicleEF	MH	0.75	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	9.5600e-004	2.2200e-004
tblVehicleEF	MH	3.2280e-003	3.3000e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	8.7900e-004	2.0400e-004

tblVehicleEF	MH	0.65	0.54
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.22
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.02	1.03
tblVehicleEF	MH	0.28	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.6100e-004	1.7100e-004
tblVehicleEF	MH	0.65	0.54
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.22
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.02	1.03
tblVehicleEF	MH	0.31	0.10
tblVehicleEF	MHD	0.02	4.0000e-003
tblVehicleEF	MHD	4.0330e-003	1.8620e-003
tblVehicleEF	MHD	0.04	9.9270e-003
tblVehicleEF	MHD	0.37	0.44
tblVehicleEF	MHD	0.33	0.24
tblVehicleEF	MHD	5.05	1.13
tblVehicleEF	MHD	134.19	82.82
tblVehicleEF	MHD	1,185.59	1,095.89
tblVehicleEF	MHD	60.16	9.87
tblVehicleEF	MHD	0.38	0.50
tblVehicleEF	MHD	1.10	1.47
tblVehicleEF	MHD	10.21	1.66
tblVehicleEF	MHD	1.2400e-004	4.1500e-004
tblVehicleEF	MHD	3.2100e-003	7.2330e-003
tblVehicleEF	MHD	8.6800e-004	1.2500e-004
tblVehicleEF	MHD	1.1800e-004	3.9700e-004

tblVehicleEF	MHD	3.0640e-003	6.9120e-003
tblVehicleEF	MHD	7.9800e-004	1.1500e-004
tblVehicleEF	MHD	7.4700e-004	3.7500e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.4600e-004	2.2100e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.30	0.05
tblVehicleEF	MHD	1.2930e-003	7.8600e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.9000e-004	9.8000e-005
tblVehicleEF	MHD	7.4700e-004	3.7500e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	4.4600e-004	2.2100e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.33	0.06
tblVehicleEF	OBUS	0.01	8.8010e-003
tblVehicleEF	OBUS	7.4220e-003	7.9490e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.24	0.52
tblVehicleEF	OBUS	0.48	0.86
tblVehicleEF	OBUS	5.26	2.78
tblVehicleEF	OBUS	72.50	67.38
tblVehicleEF	OBUS	1,274.49	1,458.49
tblVehicleEF	OBUS	68.77	21.17
tblVehicleEF	OBUS	0.14	0.25
tblVehicleEF	OBUS	0.76	1.10

tblVehicleEF	OBUS	2.13	0.70
tblVehicleEF	OBUS	1.3000e-005	8.3000e-005
tblVehicleEF	OBUS	2.4400e-003	6.0960e-003
tblVehicleEF	OBUS	8.8700e-004	2.1200e-004
tblVehicleEF	OBUS	1.2000e-005	8.0000e-005
tblVehicleEF	OBUS	2.3080e-003	5.8080e-003
tblVehicleEF	OBUS	8.1500e-004	1.9500e-004
tblVehicleEF	OBUS	1.1280e-003	1.6800e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.5900e-004	8.1700e-004
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.33	0.13
tblVehicleEF	OBUS	7.0400e-004	6.4300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.8000e-004	2.0900e-004
tblVehicleEF	OBUS	1.1280e-003	1.6800e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	5.5900e-004	8.1700e-004
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.36	0.14
tblVehicleEF	SBUS	0.86	0.02
tblVehicleEF	SBUS	5.8610e-003	2.4230e-003
tblVehicleEF	SBUS	0.06	1.3430e-003
tblVehicleEF	SBUS	2.13	1.30
tblVehicleEF	SBUS	0.39	0.21
tblVehicleEF	SBUS	1.37	0.19

tblVehicleEF	SBUS	1,429.06	294.13
tblVehicleEF	SBUS	1,234.77	970.44
tblVehicleEF	SBUS	11.02	1.11
tblVehicleEF	SBUS	12.28	2.14
tblVehicleEF	SBUS	4.36	2.58
tblVehicleEF	SBUS	19.08	1.61
tblVehicleEF	SBUS	0.01	1.3790e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	1.9000e-004	1.7000e-005
tblVehicleEF	SBUS	9.8550e-003	1.3190e-003
tblVehicleEF	SBUS	2.9270e-003	2.8990e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	1.7500e-004	1.5000e-005
tblVehicleEF	SBUS	4.5300e-004	8.9000e-005
tblVehicleEF	SBUS	4.4210e-003	8.4100e-004
tblVehicleEF	SBUS	0.25	0.09
tblVehicleEF	SBUS	2.2600e-004	4.3000e-005
tblVehicleEF	SBUS	0.11	0.04
tblVehicleEF	SBUS	1.9380e-003	5.5350e-003
tblVehicleEF	SBUS	0.07	7.4670e-003
tblVehicleEF	SBUS	0.01	2.7850e-003
tblVehicleEF	SBUS	0.01	9.2040e-003
tblVehicleEF	SBUS	1.3400e-004	1.1000e-005
tblVehicleEF	SBUS	4.5300e-004	8.9000e-005
tblVehicleEF	SBUS	4.4210e-003	8.4100e-004
tblVehicleEF	SBUS	0.35	0.12
tblVehicleEF	SBUS	2.2600e-004	4.3000e-005
tblVehicleEF	SBUS	0.12	0.05
tblVehicleEF	SBUS	1.9380e-003	5.5350e-003

tblVehicleEF	SBUS	0.08	8.1750e-003
tblVehicleEF	UBUS	0.24	1.10
tblVehicleEF	UBUS	0.07	1.4020e-003
tblVehicleEF	UBUS	3.67	8.13
tblVehicleEF	UBUS	11.64	0.22
tblVehicleEF	UBUS	1,928.48	1,559.19
tblVehicleEF	UBUS	154.02	2.71
tblVehicleEF	UBUS	4.60	0.64
tblVehicleEF	UBUS	12.00	0.02
tblVehicleEF	UBUS	0.48	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.08	4.8830e-003
tblVehicleEF	UBUS	1.3740e-003	4.6000e-005
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	7.1530e-003
tblVehicleEF	UBUS	0.08	4.6640e-003
tblVehicleEF	UBUS	1.2640e-003	4.3000e-005
tblVehicleEF	UBUS	5.0560e-003	1.2400e-004
tblVehicleEF	UBUS	0.09	9.9700e-004
tblVehicleEF	UBUS	2.8400e-003	6.6000e-005
tblVehicleEF	UBUS	0.33	0.02
tblVehicleEF	UBUS	0.02	2.9750e-003
tblVehicleEF	UBUS	0.99	4.7780e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.7530e-003	2.7000e-005
tblVehicleEF	UBUS	5.0560e-003	1.2400e-004
tblVehicleEF	UBUS	0.09	9.9700e-004
tblVehicleEF	UBUS	2.8400e-003	6.6000e-005
tblVehicleEF	UBUS	0.60	1.12
tblVehicleEF	UBUS	0.02	2.9750e-003

tblVehicleEF	UBUS	1.08	5.2320e-003
tblVehicleTrips	ST_TR	7.16	2.38
tblVehicleTrips	ST_TR	5.67	2.38
tblVehicleTrips	ST_TR	2.20	2.38
tblVehicleTrips	SU_TR	6.07	2.12
tblVehicleTrips	SU_TR	4.84	2.12
tblVehicleTrips	SU_TR	2.44	2.12
tblVehicleTrips	WD_TR	6.59	2.40
tblVehicleTrips	WD_TR	5.81	2.40
tblVehicleTrips	WD_TR	2.74	2.40
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2021	0.3554	3.8063	2.4621	4.7700e-003	0.4511	0.1727	0.6238	0.2379	0.1592	0.3971	0.0000	418.5294	418.5294	0.1318	0.0000	421.8243
2022	0.3159	3.0498	3.0080	5.2500e-003	0.0898	0.1491	0.2389	0.0405	0.1392	0.1796	0.0000	455.0998	455.0998	0.1242	0.0000	458.2039
2023	5.5144	1.8928	2.1434	3.5500e-003	0.0000	0.0922	0.0922	0.0000	0.0868	0.0868	0.0000	305.8144	305.8144	0.0720	0.0000	307.6132
2024	5.4357	1.1751	1.4165	2.3600e-003	0.0000	0.0537	0.0537	0.0000	0.0505	0.0505	0.0000	203.1027	203.1027	0.0476	0.0000	204.2919
Maximum	**5.5144**	**3.8063**	**3.0080**	**5.2500e-003**	**0.4511**	**0.1727**	**0.6238**	**0.2379**	**0.1592**	**0.3971**	**0.0000**	**455.0998**	**455.0998**	**0.1318**	**0.0000**	**458.2039**

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					
2021	0.0776	1.5234	2.8708	4.7700e-003	0.2030	7.7500e-003	0.2108	0.1071	7.7500e-003	0.1148	0.0000	418.5289	418.5289	0.1318	0.0000	421.8238
2022	0.0957	2.0124	3.4383	5.2500e-003	0.0404	0.0134	0.0538	0.0182	0.0134	0.0316	0.0000	455.0992	455.0992	0.1242	0.0000	458.2033
2023	5.3769	1.4371	2.3557	3.5500e-003	0.0000	0.0111	0.0111	0.0000	0.0111	0.0111	0.0000	305.8140	305.8140	0.0720	0.0000	307.6128
2024	5.3533	0.9545	1.5644	2.3600e-003	0.0000	7.3600e-003	7.3600e-003	0.0000	7.3600e-003	7.3600e-003	0.0000	203.1025	203.1025	0.0476	0.0000	204.2917
Maximum	**5.3769**	**2.0124**	**3.4383**	**5.2500e-003**	**0.2030**	**0.0134**	**0.2108**	**0.1071**	**0.0134**	**0.1148**	**0.0000**	**455.0992**	**455.0992**	**0.1318**	**0.0000**	**458.2033**

	ROG	NOx	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	**6.18**	**40.27**	**-13.28**	**0.00**	**55.00**	**91.54**	**71.94**	**55.00**	**90.92**	**76.92**	**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	7-1-2021	9-30-2021	1.2139	0.4546
2	10-1-2021	12-31-2021	2.9189	1.1349
3	1-1-2022	3-31-2022	1.6026	0.9222
4	4-1-2022	6-30-2022	0.6503	0.4461
5	7-1-2022	9-30-2022	0.5691	0.3761
6	10-1-2022	12-31-2022	0.5691	0.3761
7	1-1-2023	3-31-2023	0.5129	0.3679
8	4-1-2023	6-30-2023	0.5186	0.3720
9	7-1-2023	9-30-2023	0.5243	0.3761
10	10-1-2023	12-31-2023	5.8571	5.7022
11	1-1-2024	3-31-2024	0.4847	0.3720
12	4-1-2024	6-30-2024	0.4847	0.3720
13	7-1-2024	9-30-2024	5.6349	5.5590
		Highest	5.8571	5.7022

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	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987
Energy	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	735.8684	735.8684	0.0468	0.0163	741.8985
Mobile	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014

Waste						0.0000	0.0000		0.0000	0.0000	53.5389	0.0000	53.5389	3.1641	0.0000	132.6403
Water						0.0000	0.0000		0.0000	0.0000	10.9495	22.4561	33.4056	0.0408	0.0245	41.7123
Total	**4.0792**	**1.1478**	**6.9740**	**0.0122**	**0.9608**	**0.0644**	**1.0253**	**0.2571**	**0.0640**	**0.3210**	**64.4884**	**1,665.0532**	**1,729.5416**	**3.2982**	**0.0411**	**1,824.2461**

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	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987
Energy	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	735.8684	735.8684	0.0468	0.0163	741.8985
Mobile	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	53.5389	0.0000	53.5389	3.1641	0.0000	132.6403
Water						0.0000	0.0000		0.0000	0.0000	10.9495	22.4561	33.4056	0.0408	0.0245	41.7123
Total	**4.0792**	**1.1478**	**6.9740**	**0.0122**	**0.9608**	**0.0644**	**1.0253**	**0.2571**	**0.0640**	**0.3210**	**64.4884**	**1,665.0532**	**1,729.5416**	**3.2982**	**0.0411**	**1,824.2461**

	ROG	NOx	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	7/1/2021	9/8/2021	5	50	

2	Site Preparation	Site Preparation	9/9/2021	10/20/2021	5	30	
3	Grading	Grading	10/21/2021	2/2/2022	5	75	
4	Trenching	Trenching	10/21/2021	2/2/2022	5	75	
5	Building Construction - Condos_Appartment	Building Construction	2/3/2022	10/11/2023	5	440	
6	Paving	Paving	2/3/2022	4/20/2022	5	55	
7	Building Construction - CC	Building Construction	10/12/2023	8/28/2024	5	230	
8	Architectural Coating - Condos_Appartment	Architectural Coating	10/12/2023	11/29/2023	5	35	
9	Architectural Coating - CC	Architectural Coating	8/29/2024	9/25/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30.8

Acres of Paving: 0

Residential Indoor: 1,512,675; Residential Outdoor: 504,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Scrapers	2	8.00	367	0.48

Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Condos, Appartment	Cranes	1	7.00	231	0.29
Building Construction - Condos, Appartment	Forklifts	3	8.00	89	0.20
Building Construction - Condos, Appartment	Generator Sets	1	8.00	84	0.74
Building Construction - Condos, Appartment	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Condos, Appartment	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction - CC	Cranes	1	7.00	231	0.29
Building Construction - CC	Forklifts	3	8.00	89	0.20
Building Construction - CC	Generator Sets	1	8.00	84	0.74
Building Construction - CC	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - CC	Welders	1	8.00	46	0.45
Architectural Coating - Condos, Appartment	Air Compressors	1	6.00	78	0.48
Architectural Coating - CC	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Condos, Appartment	9	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Building Construction - CC	9	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Condos, Appartment	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - CC	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9600e-003	0.0000	2.9600e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0020	85.0020	0.0239	0.0000	85.6001
Total	**0.0791**	**0.7860**	**0.5391**	**9.7000e-004**	**2.9600e-003**	**0.0388**	**0.0417**	**4.5000e-004**	**0.0360**	**0.0365**	**0.0000**	**85.0020**	**85.0020**	**0.0239**	**0.0000**	**85.6001**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.3389	0.6169	9.7000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	85.0019	85.0019	0.0239	0.0000	85.6000
Total	**0.0146**	**0.3389**	**0.6169**	**9.7000e-004**	**1.3300e-003**	**1.5400e-003**	**2.8700e-003**	**2.0000e-004**	**1.5400e-003**	**1.7400e-003**	**0.0000**	**85.0019**	**85.0019**	**0.0239**	**0.0000**	**85.6000**

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591
Total	**0.0583**	**0.6075**	**0.3173**	**5.7000e-004**	**0.2710**	**0.0307**	**0.3017**	**0.1490**	**0.0282**	**0.1772**	**0.0000**	**50.1536**	**50.1536**	**0.0162**	**0.0000**	**50.5591**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1220	0.0000	0.1220	0.0670	0.0000	0.0670	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1824	0.3444	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590

Total	**0.0105**	**0.1824**	**0.3444**	**5.7000e-004**	**0.1220**	**9.3000e-004**	**0.1229**	**0.0670**	**9.3000e-004**	**0.0680**	**0.0000**	**50.1535**	**50.1535**	**0.0162**	**0.0000**	**50.5590**

Mitigated Construction Off-Site

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

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1772	0.0000	0.1772	0.0885	0.0000	0.0885	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**	**0.1772**	**0.0516**	**0.2288**	**0.0885**	**0.0475**	**0.1360**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0797	0.0000	0.0797	0.0398	0.0000	0.0398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.5010	0.9548	1.6100e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324
Total	**0.0263**	**0.5010**	**0.9548**	**1.6100e-003**	**0.0797**	**2.6400e-003**	**0.0824**	**0.0398**	**2.6400e-003**	**0.0425**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

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

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0898	0.0000	0.0898	0.0405	0.0000	0.0405	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**	**0.0898**	**0.0188**	**0.1086**	**0.0405**	**0.0173**	**0.0578**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0404	0.0000	0.0404	0.0182	0.0000	0.0182	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.2216	0.4223	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0116**	**0.2216**	**0.4223**	**7.1000e-004**	**0.0404**	**1.1700e-003**	**0.0416**	**0.0182**	**1.1700e-003**	**0.0194**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

3.5 Trenching - 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	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**		**0.0516**	**0.0516**		**0.0475**	**0.0475**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0263	0.5010	0.9548	1.6100e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324

Total	**0.0263**	**0.5010**	**0.9548**	**1.6100e-003**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

3.5 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0116	0.2216	0.4223	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0116**	**0.2216**	**0.4223**	**7.1000e-004**		**1.1700e-003**	**1.1700e-003**		**1.1700e-003**	**1.1700e-003**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

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

3.6 Building Construction - Condos_Appartment - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2022	1.8505	1.9391	3.1900e-003		0.0959	0.0959		0.0902	0.0902	0.0000	274.5944	274.5944	0.0658	0.0000	276.2390
Total	**0.2022**	**1.8505**	**1.9391**	**3.1900e-003**		**0.0959**	**0.0959**		**0.0902**	**0.0902**	**0.0000**	**274.5944**	**274.5944**	**0.0658**	**0.0000**	**276.2390**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0632	1.2931	2.1180	3.1900e-003		0.0100	0.0100		0.0100	0.0100	0.0000	274.5941	274.5941	0.0658	0.0000	276.2387
Total	**0.0632**	**1.2931**	**2.1180**	**3.1900e-003**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**274.5941**	**274.5941**	**0.0658**	**0.0000**	**276.2387**

Mitigated Construction Off-Site

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

3.6 Building Construction - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1596	1.4601	1.6488	2.7300e-003		0.0710	0.0710		0.0668	0.0668	0.0000	235.2818	235.2818	0.0560	0.0000	236.6811
Total	**0.1596**	**1.4601**	**1.6488**	**2.7300e-003**		**0.0710**	**0.0710**		**0.0668**	**0.0668**	**0.0000**	**235.2818**	**235.2818**	**0.0560**	**0.0000**	**236.6811**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0542	1.1076	1.8142	2.7300e-003		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	235.2815	235.2815	0.0560	0.0000	236.6808

Total	**0.0542**	**1.1076**	**1.8142**	**2.7300e-003**		**8.5900e-003**	**8.5900e-003**		**8.5900e-003**	**8.5900e-003**	**0.0000**	**235.2815**	**235.2815**	**0.0560**	**0.0000**	**236.6808**

Mitigated Construction Off-Site

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

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0758	55.0758	0.0178	0.0000	55.5211
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0303**	**0.3059**	**0.4010**	**6.3000e-004**		**0.0156**	**0.0156**		**0.0144**	**0.0144**	**0.0000**	**55.0758**	**55.0758**	**0.0178**	**0.0000**	**55.5211**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1900e-003	0.2761	0.4756	6.3000e-004		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	55.0757	55.0757	0.0178	0.0000	55.5210
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1900e-003**	**0.2761**	**0.4756**	**6.3000e-004**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**55.0757**	**55.0757**	**0.0178**	**0.0000**	**55.5210**

Mitigated Construction Off-Site

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

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

3.8 Building Construction - CC - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	**0.0448**	**0.4100**	**0.4630**	**7.7000e-004**		**0.0199**	**0.0199**		**0.0188**	**0.0188**	**0.0000**	**66.0644**	**66.0644**	**0.0157**	**0.0000**	**66.4572**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.3110	0.5094	7.7000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	**0.0152**	**0.3110**	**0.5094**	**7.7000e-004**		**2.4100e-003**	**2.4100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**66.0643**	**66.0643**	**0.0157**	**0.0000**	**66.4572**

Mitigated Construction Off-Site

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

3.8 Building Construction - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1273	1.1629	1.3984	2.3300e-003		0.0531	0.0531		0.0499	0.0499	0.0000	200.5495	200.5495	0.0474	0.0000	201.7351
Total	**0.1273**	**1.1629**	**1.3984**	**2.3300e-003**		**0.0531**	**0.0531**		**0.0499**	**0.0499**	**0.0000**	**200.5495**	**200.5495**	**0.0474**	**0.0000**	**201.7351**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0462	0.9439	1.5461	2.3300e-003		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003	0.0000	200.5492	200.5492	0.0474	0.0000	201.7348

Total	**0.0462**	**0.9439**	**1.5461**	**2.3300e-003**		**7.3200e-003**	**7.3200e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**200.5492**	**200.5492**	**0.0474**	**0.0000**	**201.7348**

Mitigated Construction Off-Site

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

3.9 Architectural Coating - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**5.3100**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	0.0186	0.0321	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**5.3076**	**0.0186**	**0.0321**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Mitigated Construction Off-Site

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

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

3.10 Architectural Coating - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**5.3084**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**5.3072**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948
Unmitigated	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	768.00	761.60	678.40	1,742,104	1,742,104
Condo/Townhouse	132.00	130.90	116.60	299,424	299,424
Congregate Care (Assisted Living)	240.00	238.00	212.00	544,407	544,407
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,140.00	1,130.50	1,007.00	2,585,935	2,585,935

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
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Congregate Care (Assisted	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Condo/Townhouse	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Congregate Care (Assisted Living)	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Enclosed Parking with Elevator	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Parking Lot	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823

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	275.1018	275.1018	0.0380	7.8600e-003	278.3939
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	275.1018	275.1018	0.0380	7.8600e-003	278.3939
NaturalGas Mitigated	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	460.7666	460.7666	8.8300e-003	8.4500e-003	463.5047
NaturalGas Unmitigated	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	460.7666	460.7666	8.8300e-003	8.4500e-003	463.5047

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					
Apartments Low Rise	6.51184e+006	0.0351	0.3001	0.1277	1.9200e-003		0.0243	0.0243		0.0243	0.0243	0.0000	347.4966	347.4966	6.6600e-003	6.3700e-003	349.5616
Condo/Townhouse	1.24956e+006	6.7400e-003	0.0576	0.0245	3.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	66.6811	66.6811	1.2800e-003	1.2200e-003	67.0773
Congregate Care (Assisted Living)	873043	4.7100e-003	0.0402	0.0171	2.6000e-004		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	46.5889	46.5889	8.9000e-004	8.5000e-004	46.8658
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0466**	**0.3979**	**0.1693**	**2.5500e-003**		**0.0322**	**0.0322**		**0.0322**	**0.0322**	**0.0000**	**460.7666**	**460.7666**	**8.8300e-003**	**8.4400e-003**	**463.5047**

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					
Apartments Low Rise	6.51184e+006	0.0351	0.3001	0.1277	1.9200e-003		0.0243	0.0243		0.0243	0.0243	0.0000	347.4966	347.4966	6.6600e-003	6.3700e-003	349.5616
Condo/Townhouse	1.24956e+006	6.7400e-003	0.0576	0.0245	3.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	66.6811	66.6811	1.2800e-003	1.2200e-003	67.0773
Congregate Care (Assisted Living)	873043	4.7100e-003	0.0402	0.0171	2.6000e-004		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	46.5889	46.5889	8.9000e-004	8.5000e-004	46.8658
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0466**	**0.3979**	**0.1693**	**2.5500e-003**		**0.0322**	**0.0322**		**0.0322**	**0.0322**	**0.0000**	**460.7666**	**460.7666**	**8.8300e-003**	**8.4400e-003**	**463.5047**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.34918e+006	128.5151	0.0178	3.6700e-003	130.0530
Condo/Townhouse	275035	26.1983	3.6200e-003	7.5000e-004	26.5118
Congregate Care (Assisted Living)	422199	40.2163	5.5500e-003	1.1500e-003	40.6976
Enclosed Parking with Elevator	809114	77.0716	0.0106	2.2000e-003	77.9939
Parking Lot	16275	3.1005	4.3000e-004	9.0000e-005	3.1376
Total		**275.1018**	**0.0380**	**7.8600e-003**	**278.3939**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.34918e+006	128.5151	0.0178	3.6700e-003	130.0530
Condo/Townhouse	275035	26.1983	3.6200e-003	7.5000e-004	26.5118
Congregate Care (Assisted Living)	422199	40.2163	5.5500e-003	1.1500e-003	40.6976
Enclosed Parking with Elevator	809114	77.0716	0.0106	2.2000e-003	77.9939
Parking Lot	16275	3.1005	4.3000e-004	9.0000e-005	3.1376
Total		**275.1018**	**0.0380**	**7.8600e-003**	**278.3939**

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	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987
Unmitigated	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987

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	0.5307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9200e-003	0.0164	6.9700e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9756	18.9756	3.6000e-004	3.5000e-004	19.0883
Landscaping	0.1063	0.0406	3.5290	1.9000e-004		0.0196	0.0196		0.0196	0.0196	0.0000	5.7718	5.7718	5.5400e-003	0.0000	5.9104
Total	**3.5712**	**0.0570**	**3.5360**	**2.9000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**24.7474**	**24.7474**	**5.9000e-003**	**3.5000e-004**	**24.9987**

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	0.5307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9200e-003	0.0164	6.9700e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9756	18.9756	3.6000e-004	3.5000e-004	19.0883
Landscaping	0.1063	0.0406	3.5290	1.9000e-004		0.0196	0.0196		0.0196	0.0196	0.0000	5.7718	5.7718	5.5400e-003	0.0000	5.9104
Total	**3.5712**	**0.0570**	**3.5360**	**2.9000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**24.7474**	**24.7474**	**5.9000e-003**	**3.5000e-004**	**24.9987**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	33.4056	0.0408	0.0245	41.7123
Unmitigated	33.4056	0.0408	0.0245	41.7123

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
Condo/Townhouse	3.58347 / 2.25915	3.8680	4.7200e-003	2.8300e-003	4.8299
Congregate Care (Assisted Living)	6.5154 / 4.10754	7.0328	8.5900e-003	5.1500e-003	8.7815
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**33.4056**	**0.0408**	**0.0245**	**41.7123**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
Condo/Townhouse	3.58347 / 2.25915	3.8680	4.7200e-003	2.8300e-003	4.8299
Congregate Care (Assisted Living)	6.5154 / 4.10754	7.0328	8.5900e-003	5.1500e-003	8.7815
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**33.4056**	**0.0408**	**0.0245**	**41.7123**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	53.5389	3.1641	0.0000	132.6403
Unmitigated	53.5389	3.1641	0.0000	132.6403

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	147.2	29.8803	1.7659	0.0000	74.0271
Condo/Townhouse	25.3	5.1357	0.3035	0.0000	12.7234
Congregate Care (Assisted Living)	91.25	18.5229	1.0947	0.0000	45.8898
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**53.5389**	**3.1641**	**0.0000**	**132.6403**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	147.2	29.8803	1.7659	0.0000	74.0271
Condo/Townhouse	25.3	5.1357	0.3035	0.0000	12.7234
Congregate Care (Assisted Living)	91.25	18.5229	1.0947	0.0000	45.8898
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**53.5389**	**3.1641**	**0.0000**	**132.6403**

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	670.5	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 (600 - 750 HP)	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Total	**0.0275**	**0.0768**	**0.0701**	**1.3000e-004**		**4.0400e-003**	**4.0400e-003**		**4.0400e-003**	**4.0400e-003**	**0.0000**	**12.7567**	**12.7567**	**1.7900e-003**	**0.0000**	**12.8014**

11.0 Vegetation

Spieker Senior Continuing Care Community - New Asphalt Surfaces

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	281.50	1000sqft	6.46	281,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factor based on 2017 PG&E Published report

Land Use - Land uses per project description and conversation with Mike Loewke on 6-25-20. Sq ft from construction data sheet provided by client.

Construction Phase - CalEEMod Default for Building Construction and Coatings of CC Center and Condos/Appartments

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Grading

Trips and VMT - Concrete and asphalt haul trip length = vendor length. Concrete and Asphalt haul trips estimated from site plans. See trips .CSV file for trip info.

Demolition - Based on Estimate from Google Earth

Vehicle Trips - Based on daily trip rate of 2.399 per DU (ITE LU Code 255). Sat and Sun based on composite ratio of weekday to Sat/Sun CalEEMod Defaults applied to provided weekday rate.

Vehicle Emission Factors - From EMFAC2017 for CC County, 2025

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood burning hearths. Gas only.

Energy Use -

Water And Wastewater - Assume 100% WWTP

Construction Off-road Equipment Mitigation - Typical Mitigation Scenario

Stationary Sources - Emergency Generators and Fire Pumps - Assume the CC Center will have an emergency generator.

Architectural Coating - 10% ROG Mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	135.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	135.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	90.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	90.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	135.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	135.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	90.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	90.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	NumDays	20.00	75.00
tblConstructionPhase	NumDays	230.00	440.00
tblConstructionPhase	NumDays	20.00	55.00

tblConstructionPhase	NumDays	20.00	35.00
tblGrading	AcresOfGrading	187.50	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	27.00	0.00
tblTripsAndVMT	VendorTripNumber	46.00	0.00
tblTripsAndVMT	VendorTripNumber	46.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	118.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	118.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	0.00
tblTripsAndVMT	WorkerTripNumber	24.00	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					

2021	0.3554	3.8063	2.4621	4.7700e-003	0.4358	0.1727	0.6085	0.2361	0.1592	0.3953	0.0000	418.5294	418.5294	0.1318	0.0000	421.8243
2022	0.3244	3.0498	3.0080	5.2500e-003	0.0746	0.1491	0.2236	0.0386	0.1392	0.1778	0.0000	455.0998	455.0998	0.1242	0.0000	458.2039
2023	0.2665	1.8928	2.1434	3.5500e-003	0.0000	0.0922	0.0922	0.0000	0.0868	0.0868	0.0000	305.8144	305.8144	0.0720	0.0000	307.6132
2024	0.1878	1.1751	1.4165	2.3600e-003	0.0000	0.0537	0.0537	0.0000	0.0505	0.0505	0.0000	203.1027	203.1027	0.0476	0.0000	204.2919
Maximum	**0.3554**	**3.8063**	**3.0080**	**5.2500e-003**	**0.4358**	**0.1727**	**0.6085**	**0.2361**	**0.1592**	**0.3953**	**0.0000**	**455.0998**	**455.0998**	**0.1318**	**0.0000**	**458.2039**

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					
2021	0.3554	3.8063	2.4621	4.7700e-003	0.1961	0.1727	0.3688	0.1062	0.1592	0.2654	0.0000	418.5289	418.5289	0.1318	0.0000	421.8238
2022	0.3244	3.0498	3.0080	5.2500e-003	0.0336	0.1491	0.1826	0.0174	0.1392	0.1566	0.0000	455.0992	455.0992	0.1242	0.0000	458.2033
2023	0.2665	1.8928	2.1434	3.5500e-003	0.0000	0.0922	0.0922	0.0000	0.0868	0.0868	0.0000	305.8140	305.8140	0.0720	0.0000	307.6128
2024	0.1878	1.1751	1.4165	2.3600e-003	0.0000	0.0537	0.0537	0.0000	0.0505	0.0505	0.0000	203.1025	203.1025	0.0476	0.0000	204.2917
Maximum	**0.3554**	**3.8063**	**3.0080**	**5.2500e-003**	**0.1961**	**0.1727**	**0.3688**	**0.1062**	**0.1592**	**0.2654**	**0.0000**	**455.0992**	**455.0992**	**0.1318**	**0.0000**	**458.2033**

	ROG	NOx	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**	**55.00**	**0.00**	**28.70**	**55.00**	**0.00**	**21.27**	**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	**7-1-2021**	**9-30-2021**	1.2139	1.2139
2	**10-1-2021**	**12-31-2021**	2.9189	2.9189
3	**1-1-2022**	**3-31-2022**	1.6088	1.6088
4	**4-1-2022**	**6-30-2022**	0.6525	0.6525

5	**7-1-2022**	**9-30-2022**	0.5691	0.5691
6	**10-1-2022**	**12-31-2022**	0.5691	0.5691
7	**1-1-2023**	**3-31-2023**	0.5129	0.5129
8	**4-1-2023**	**6-30-2023**	0.5186	0.5186
9	**7-1-2023**	**9-30-2023**	0.5243	0.5243
10	**10-1-2023**	**12-31-2023**	0.6092	0.6092
11	**1-1-2024**	**3-31-2024**	0.4847	0.4847
12	**4-1-2024**	**6-30-2024**	0.4847	0.4847
13	**7-1-2024**	**9-30-2024**	0.3870	0.3870
		Highest	2.9189	2.9189

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	0.0243	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0300e-003	5.0300e-003	1.0000e-005	0.0000	5.3600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0518**	**0.0769**	**0.0727**	**1.3000e-004**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**0.0000**	**12.7617**	**12.7617**	**1.8000e-003**	**0.0000**	**12.8068**

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	0.0243	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0300e-003	5.0300e-003	1.0000e-005	0.0000	5.3600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0518**	**0.0769**	**0.0727**	**1.3000e-004**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**0.0000**	**12.7617**	**12.7617**	**1.8000e-003**	**0.0000**	**12.8068**

	ROG	NOx	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	7/1/2021	9/8/2021	5	50	
2	Site Preparation	Site Preparation	9/9/2021	10/20/2021	5	30	
3	Grading	Grading	10/21/2021	2/2/2022	5	75	
4	Trenching	Trenching	10/21/2021	2/2/2022	5	75	
5	Building Construction - Condos_Appartment	Building Construction	2/3/2022	10/11/2023	5	440	
6	Paving	Paving	2/3/2022	4/20/2022	5	55	
7	Building Construction - CC	Building Construction	10/12/2023	8/28/2024	5	230	

8	Architectural Coating - Condos_Appartment	Architectural Coating	10/12/2023	11/29/2023	5	35	
9	Architectural Coating - CC	Architectural Coating	8/29/2024	9/25/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 6.46

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 16,890

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Scrapers	2	8.00	367	0.48
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Condos_Appartment	Cranes	1	7.00	231	0.29
Building Construction - Condos_Appartment	Forklifts	3	8.00	89	0.20
Building Construction - Condos_Appartment	Generator Sets	1	8.00	84	0.74
Building Construction - Condos_Appartment	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Condos_Appartment	Welders	1	8.00	46	0.45

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction - CC	Cranes	1	7.00	231	0.29
Building Construction - CC	Forklifts	3	8.00	89	0.20
Building Construction - CC	Generator Sets	1	8.00	84	0.74
Building Construction - CC	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - CC	Welders	1	8.00	46	0.45
Architectural Coating - Condos_Appartment	Air Compressors	1	6.00	78	0.48
Architectural Coating - CC	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Condos_Appartment	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - CC	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Condos_Appartment	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - CC	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9600e-003	0.0000	2.9600e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0020	85.0020	0.0239	0.0000	85.6001
Total	**0.0791**	**0.7860**	**0.5391**	**9.7000e-004**	**2.9600e-003**	**0.0388**	**0.0417**	**4.5000e-004**	**0.0360**	**0.0365**	**0.0000**	**85.0020**	**85.0020**	**0.0239**	**0.0000**	**85.6001**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0019	85.0019	0.0239	0.0000	85.6000
Total	**0.0791**	**0.7860**	**0.5391**	**9.7000e-004**	**1.3300e-003**	**0.0388**	**0.0401**	**2.0000e-004**	**0.0360**	**0.0362**	**0.0000**	**85.0019**	**85.0019**	**0.0239**	**0.0000**	**85.6000**

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591
Total	**0.0583**	**0.6075**	**0.3173**	**5.7000e-004**	**0.2710**	**0.0307**	**0.3017**	**0.1490**	**0.0282**	**0.1772**	**0.0000**	**50.1536**	**50.1536**	**0.0162**	**0.0000**	**50.5591**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1220	0.0000	0.1220	0.0670	0.0000	0.0670	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590
Total	**0.0583**	**0.6075**	**0.3173**	**5.7000e-004**	**0.1220**	**0.0307**	**0.1526**	**0.0670**	**0.0282**	**0.0952**	**0.0000**	**50.1535**	**50.1535**	**0.0162**	**0.0000**	**50.5590**

Mitigated Construction Off-Site

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

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1619	0.0000	0.1619	0.0866	0.0000	0.0866	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**	**0.1619**	**0.0516**	**0.2135**	**0.0866**	**0.0475**	**0.1341**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0728	0.0000	0.0728	0.0390	0.0000	0.0390	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**	**0.0728**	**0.0516**	**0.1245**	**0.0390**	**0.0475**	**0.0865**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0746	0.0000	0.0746	0.0386	0.0000	0.0386	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**	**0.0746**	**0.0188**	**0.0934**	**0.0386**	**0.0173**	**0.0559**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0336	0.0000	0.0336	0.0174	0.0000	0.0174	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**	**0.0336**	**0.0188**	**0.0524**	**0.0174**	**0.0173**	**0.0347**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

3.5 Trenching - 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	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326

Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**		**0.0516**	**0.0516**		**0.0475**	**0.0475**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**		**0.0516**	**0.0516**		**0.0475**	**0.0475**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

3.5 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Building Construction - Condos_Appartment - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2022	1.8505	1.9391	3.1900e-003		0.0959	0.0959		0.0902	0.0902	0.0000	274.5944	274.5944	0.0658	0.0000	276.2390
Total	**0.2022**	**1.8505**	**1.9391**	**3.1900e-003**		**0.0959**	**0.0959**		**0.0902**	**0.0902**	**0.0000**	**274.5944**	**274.5944**	**0.0658**	**0.0000**	**276.2390**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2022	1.8505	1.9391	3.1900e-003		0.0959	0.0959		0.0902	0.0902	0.0000	274.5941	274.5941	0.0658	0.0000	276.2387
Total	**0.2022**	**1.8505**	**1.9391**	**3.1900e-003**		**0.0959**	**0.0959**		**0.0902**	**0.0902**	**0.0000**	**274.5941**	**274.5941**	**0.0658**	**0.0000**	**276.2387**

Mitigated Construction Off-Site

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

3.6 Building Construction - Condos_Appartment - 2023

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	0.1596	1.4601	1.6488	2.7300e-003		0.0710	0.0710		0.0668	0.0668	0.0000	235.2818	235.2818	0.0560	0.0000	236.6811
Total	**0.1596**	**1.4601**	**1.6488**	**2.7300e-003**		**0.0710**	**0.0710**		**0.0668**	**0.0668**	**0.0000**	**235.2818**	**235.2818**	**0.0560**	**0.0000**	**236.6811**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1596	1.4601	1.6488	2.7300e-003		0.0710	0.0710		0.0668	0.0668	0.0000	235.2815	235.2815	0.0560	0.0000	236.6808
Total	**0.1596**	**1.4601**	**1.6488**	**2.7300e-003**		**0.0710**	**0.0710**		**0.0668**	**0.0668**	**0.0000**	**235.2815**	**235.2815**	**0.0560**	**0.0000**	**236.6808**

Mitigated Construction Off-Site

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

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0758	55.0758	0.0178	0.0000	55.5211
Paving	8.4600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0388**	**0.3059**	**0.4010**	**6.3000e-004**		**0.0156**	**0.0156**		**0.0144**	**0.0144**	**0.0000**	**55.0758**	**55.0758**	**0.0178**	**0.0000**	**55.5211**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0757	55.0757	0.0178	0.0000	55.5210
Paving	8.4600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0388**	**0.3059**	**0.4010**	**6.3000e-004**		**0.0156**	**0.0156**		**0.0144**	**0.0144**	**0.0000**	**55.0757**	**55.0757**	**0.0178**	**0.0000**	**55.5210**

Mitigated Construction Off-Site

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

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

3.8 Building Construction - CC - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	**0.0448**	**0.4100**	**0.4630**	**7.7000e-004**		**0.0199**	**0.0199**		**0.0188**	**0.0188**	**0.0000**	**66.0644**	**66.0644**	**0.0157**	**0.0000**	**66.4572**

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	**0.0448**	**0.4100**	**0.4630**	**7.7000e-004**		**0.0199**	**0.0199**		**0.0188**	**0.0188**	**0.0000**	**66.0643**	**66.0643**	**0.0157**	**0.0000**	**66.4572**

Mitigated Construction Off-Site

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

3.8 Building Construction - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1273	1.1629	1.3984	2.3300e-003		0.0531	0.0531		0.0499	0.0499	0.0000	200.5495	200.5495	0.0474	0.0000	201.7351
Total	**0.1273**	**1.1629**	**1.3984**	**2.3300e-003**		**0.0531**	**0.0531**		**0.0499**	**0.0499**	**0.0000**	**200.5495**	**200.5495**	**0.0474**	**0.0000**	**201.7351**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Off-Road	0.1273	1.1629	1.3984	2.3300e-003		0.0531	0.0531		0.0499	0.0499	0.0000	200.5492	200.5492	0.0474	0.0000	201.7348
Total	**0.1273**	**1.1629**	**1.3984**	**2.3300e-003**		**0.0531**	**0.0531**		**0.0499**	**0.0499**	**0.0000**	**200.5492**	**200.5492**	**0.0474**	**0.0000**	**201.7348**

Mitigated Construction Off-Site

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

3.9 Architectural Coating - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**0.0621**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**0.0621**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Mitigated Construction Off-Site

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

3.10 Architectural Coating - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.0605**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.0605**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Asphalt Surfaces	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
Other Asphalt Surfaces	0.597341	0.036425	0.184736	0.114304	0.014288	0.004933	0.010771	0.025203	0.001643	0.001653	0.005254	0.002704	0.000746

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0243	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0300e-003	5.0300e-003	1.0000e-005	0.0000	5.3600e-003
Unmitigated	0.0243	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0300e-003	5.0300e-003	1.0000e-005	0.0000	5.3600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Consumer Products	0.0182					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0300e-003	5.0300e-003	1.0000e-005	0.0000	5.3600e-003
Total	**0.0243**	**2.0000e-005**	**2.5800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.0300e-003**	**5.0300e-003**	**1.0000e-005**	**0.0000**	**5.3600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0182					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0300e-003	5.0300e-003	1.0000e-005	0.0000	5.3600e-003
Total	**0.0243**	**2.0000e-005**	**2.5800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.0300e-003**	**5.0300e-003**	**1.0000e-005**	**0.0000**	**5.3600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	670.5	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 (600 - 750 HP)	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Total	**0.0275**	**0.0768**	**0.0701**	**1.3000e-004**		**4.0400e-003**	**4.0400e-003**		**4.0400e-003**	**4.0400e-003**	**0.0000**	**12.7567**	**12.7567**	**1.7900e-003**	**0.0000**	**12.8014**

11.0 Vegetation

Spieker Senior Continuing Care Community - Walnut Creek - Contra Costa County, Annual

Spieker Senior Continuing Care Community - Walnut Creek ROG Mitigation

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	383.00	Space	0.00	138,074.00	0
Parking Lot	112.00	Space	0.00	46,500.00	0
Parking Lot	99.00	Space	0.00	46,500.00	0
Apartments Low Rise	320.00	Dwelling Unit	30.80	550,000.00	915
Condo/Townhouse	55.00	Dwelling Unit	0.00	110,000.00	157
Congregate Care (Assisted Living)	100.00	Dwelling Unit	0.00	87,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factor based on 2017 PG&E Published report

Land Use - Land uses per project description and conversation with Mike Loewke on 6-25-20. Sq ft from construction data sheet provided by client.

Construction Phase - CalEEMod Default for Building Construction and Coatings of CC Center and Condos/Appartments

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Grading

Trips and VMT - Concrete and asphalt haul trip length = vendor length. Concrete and Asphalt haul trips estimated from site plans. See trips .CSV file for trip info.
Demolition - Based on Estimate from Google Earth

Vehicle Trips - Based on daily trip rate of 2.399 per DU (ITE LU Code 255). Sat and Sun based on composite ratio of weekday to Sat/Sun CalEEMod Defaults applied to provided weekday rate.
Vehicle Emission Factors - From EMFAC2017 for CC County, 2025

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood burning hearths. Gas only.

Energy Use -

Water And Wastewater - Assume 100% WWTP

Construction Off-road Equipment Mitigation - Typical Mitigation Scenario

Stationary Sources - Emergency Generators and Fire Pumps - Assume the CC Center will have an emergency generator.

Architectural Coating - ROG Mitigation 12% Reduction

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	132.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	132.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	88.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	88.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	132.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	132.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	88.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	88.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	30.00	50.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	45.00	75.00

tblConstructionPhase	NumDays	500.00	440.00
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	500.00	230.00
tblConstructionPhase	NumDays	35.00	20.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	48.00	102.40
tblFireplaces	NumberGas	8.25	17.60
tblFireplaces	NumberGas	15.00	32.00
tblFireplaces	NumberWood	54.40	0.00
tblFireplaces	NumberWood	9.35	0.00
tblFireplaces	NumberWood	17.00	0.00
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDA	0.60	0.57
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT1	0.04	0.06
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18

tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD1	0.01	0.02
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	LHD2	4.9330e-003	5.4940e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MCY	5.2540e-003	8.3870e-003
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MDV	0.11	0.12
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MH	7.4600e-004	8.2300e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01

tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	OBUS	1.6430e-003	8.4400e-004
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	SBUS	2.7040e-003	1.2970e-003
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblFleetMix	UBUS	1.6530e-003	8.9900e-004
tblGrading	AcresOfGrading	187.50	30.80
tblLandUse	LandUseSquareFeet	153,200.00	138,074.00
tblLandUse	LandUseSquareFeet	44,800.00	46,500.00
tblLandUse	LandUseSquareFeet	39,600.00	46,500.00
tblLandUse	LandUseSquareFeet	320,000.00	550,000.00
tblLandUse	LandUseSquareFeet	55,000.00	110,000.00
tblLandUse	LandUseSquareFeet	100,000.00	87,000.00
tblLandUse	LotAcreage	3.45	0.00
tblLandUse	LotAcreage	1.01	0.00
tblLandUse	LotAcreage	0.89	0.00
tblLandUse	LotAcreage	20.00	30.80
tblLandUse	LotAcreage	3.44	0.00

tblLandUse	LotAcreage	6.25	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripLength	20.00	7.30
tblTripsAndVMT	HaulingTripNumber	27.00	0.00
tblTripsAndVMT	VendorTripNumber	89.00	0.00
tblTripsAndVMT	VendorTripNumber	89.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	439.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	439.00	0.00
tblTripsAndVMT	WorkerTripNumber	88.00	0.00
tblTripsAndVMT	WorkerTripNumber	88.00	0.00
tblVehicleEF	HHD	0.40	0.02
tblVehicleEF	HHD	0.04	0.05
tblVehicleEF	HHD	0.08	0.00
tblVehicleEF	HHD	1.55	6.26
tblVehicleEF	HHD	0.84	0.40
tblVehicleEF	HHD	2.84	5.2340e-003
tblVehicleEF	HHD	4,274.18	1,019.51
tblVehicleEF	HHD	1,530.13	1,381.70

tblVehicleEF	HHD	8.79	0.04
tblVehicleEF	HHD	13.50	5.29
tblVehicleEF	HHD	1.84	2.65
tblVehicleEF	HHD	19.73	2.36
tblVehicleEF	HHD	7.0080e-003	2.5120e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.1110e-003	0.02
tblVehicleEF	HHD	9.3000e-005	1.0000e-006
tblVehicleEF	HHD	6.7050e-003	2.4040e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8130e-003	8.8700e-003
tblVehicleEF	HHD	5.8460e-003	0.02
tblVehicleEF	HHD	8.6000e-005	1.0000e-006
tblVehicleEF	HHD	7.3000e-005	2.0000e-006
tblVehicleEF	HHD	3.8850e-003	7.5000e-005
tblVehicleEF	HHD	0.40	0.42
tblVehicleEF	HHD	4.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	3.2900e-004	4.0500e-004
tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	HHD	0.04	9.4890e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.3400e-004	0.00
tblVehicleEF	HHD	7.3000e-005	2.0000e-006
tblVehicleEF	HHD	3.8850e-003	7.5000e-005
tblVehicleEF	HHD	0.47	0.49
tblVehicleEF	HHD	4.9000e-005	1.0000e-006
tblVehicleEF	HHD	0.14	0.07
tblVehicleEF	HHD	3.2900e-004	4.0500e-004

tblVehicleEF	HHD	0.07	2.0000e-006
tblVehicleEF	LDA	3.0000e-003	1.5730e-003
tblVehicleEF	LDA	4.0030e-003	0.04
tblVehicleEF	LDA	0.45	0.49
tblVehicleEF	LDA	0.96	2.08
tblVehicleEF	LDA	219.81	238.61
tblVehicleEF	LDA	50.69	50.67
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.05	0.16
tblVehicleEF	LDA	1.6530e-003	1.2790e-003
tblVehicleEF	LDA	2.2670e-003	1.6650e-003
tblVehicleEF	LDA	1.5230e-003	1.1780e-003
tblVehicleEF	LDA	2.0840e-003	1.5310e-003
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.09
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	7.5490e-003	5.7690e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.05	0.19
tblVehicleEF	LDA	2.2000e-003	9.2000e-005
tblVehicleEF	LDA	5.2300e-004	0.00
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.08	0.09
tblVehicleEF	LDA	0.02	0.04
tblVehicleEF	LDA	0.01	8.3830e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	6.0950e-003	3.3010e-003
tblVehicleEF	LDT1	9.7950e-003	0.06
tblVehicleEF	LDT1	0.80	0.79

tblVehicleEF	LDT1	2.08	2.26
tblVehicleEF	LDT1	276.40	287.47
tblVehicleEF	LDT1	64.55	61.73
tblVehicleEF	LDT1	0.08	0.06
tblVehicleEF	LDT1	0.11	0.22
tblVehicleEF	LDT1	2.0320e-003	1.5620e-003
tblVehicleEF	LDT1	2.8410e-003	2.0750e-003
tblVehicleEF	LDT1	1.8700e-003	1.4370e-003
tblVehicleEF	LDT1	2.6130e-003	1.9080e-003
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.20	0.16
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.13	0.60
tblVehicleEF	LDT1	0.13	0.28
tblVehicleEF	LDT1	2.7720e-003	2.8310e-003
tblVehicleEF	LDT1	6.8100e-004	0.00
tblVehicleEF	LDT1	0.07	0.08
tblVehicleEF	LDT1	0.20	0.16
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.13	0.60
tblVehicleEF	LDT1	0.14	0.31
tblVehicleEF	LDT2	4.0660e-003	2.5820e-003
tblVehicleEF	LDT2	5.2330e-003	0.06
tblVehicleEF	LDT2	0.58	0.67
tblVehicleEF	LDT2	1.23	2.66
tblVehicleEF	LDT2	310.89	304.91
tblVehicleEF	LDT2	71.95	65.78
tblVehicleEF	LDT2	0.06	0.05

tblVehicleEF	LDT2	0.09	0.24
tblVehicleEF	LDT2	1.6890e-003	1.3170e-003
tblVehicleEF	LDT2	2.3480e-003	1.6630e-003
tblVehicleEF	LDT2	1.5530e-003	1.2120e-003
tblVehicleEF	LDT2	2.1590e-003	1.5290e-003
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.42
tblVehicleEF	LDT2	0.07	0.27
tblVehicleEF	LDT2	3.1120e-003	0.01
tblVehicleEF	LDT2	7.4000e-004	9.8000e-005
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	0.04	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.42
tblVehicleEF	LDT2	0.08	0.30
tblVehicleEF	LHD1	4.7260e-003	4.6450e-003
tblVehicleEF	LHD1	0.01	7.8330e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.18
tblVehicleEF	LHD1	0.93	0.72
tblVehicleEF	LHD1	2.17	0.97
tblVehicleEF	LHD1	9.14	9.02
tblVehicleEF	LHD1	674.80	764.24
tblVehicleEF	LHD1	29.28	10.67
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	1.28	0.85

tblVehicleEF	LHD1	0.90	0.29
tblVehicleEF	LHD1	9.3600e-004	9.3500e-004
tblVehicleEF	LHD1	0.01	9.9160e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	8.1200e-004	2.2400e-004
tblVehicleEF	LHD1	2.5620e-003	2.4790e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	7.4700e-004	2.0600e-004
tblVehicleEF	LHD1	2.2070e-003	1.7030e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2810e-003	9.8600e-004
tblVehicleEF	LHD1	0.12	0.10
tblVehicleEF	LHD1	0.31	0.51
tblVehicleEF	LHD1	0.22	0.06
tblVehicleEF	LHD1	9.1000e-005	8.7000e-005
tblVehicleEF	LHD1	6.6090e-003	7.4500e-003
tblVehicleEF	LHD1	3.3400e-004	1.0600e-004
tblVehicleEF	LHD1	2.2070e-003	1.7030e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.2810e-003	9.8600e-004
tblVehicleEF	LHD1	0.15	0.12
tblVehicleEF	LHD1	0.31	0.51
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD2	2.9550e-003	2.8090e-003
tblVehicleEF	LHD2	6.6120e-003	6.5690e-003
tblVehicleEF	LHD2	5.0900e-003	6.7610e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.53	0.61

tblVehicleEF	LHD2	0.98	0.53
tblVehicleEF	LHD2	14.09	14.16
tblVehicleEF	LHD2	694.99	742.13
tblVehicleEF	LHD2	22.29	6.88
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	0.65	0.87
tblVehicleEF	LHD2	0.37	0.16
tblVehicleEF	LHD2	1.2210e-003	1.4850e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.5900e-004	1.0800e-004
tblVehicleEF	LHD2	1.1680e-003	1.4200e-003
tblVehicleEF	LHD2	2.7070e-003	2.7120e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.3000e-004	9.9000e-005
tblVehicleEF	LHD2	5.9500e-004	7.5900e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.7500e-004	4.6000e-004
tblVehicleEF	LHD2	0.10	0.11
tblVehicleEF	LHD2	0.05	0.20
tblVehicleEF	LHD2	0.07	0.03
tblVehicleEF	LHD2	1.3700e-004	1.3500e-004
tblVehicleEF	LHD2	6.7520e-003	7.1570e-003
tblVehicleEF	LHD2	2.4000e-004	6.8000e-005
tblVehicleEF	LHD2	5.9500e-004	7.5900e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	3.7500e-004	4.6000e-004
tblVehicleEF	LHD2	0.12	0.13

tblVehicleEF	LHD2	0.05	0.20
tblVehicleEF	LHD2	0.08	0.04
tblVehicleEF	MCY	0.46	0.33
tblVehicleEF	MCY	0.16	0.26
tblVehicleEF	MCY	19.39	19.68
tblVehicleEF	MCY	10.25	9.10
tblVehicleEF	MCY	173.87	213.27
tblVehicleEF	MCY	45.18	61.41
tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.1180e-003	2.0620e-003
tblVehicleEF	MCY	3.6410e-003	2.9910e-003
tblVehicleEF	MCY	1.9790e-003	1.9270e-003
tblVehicleEF	MCY	3.4250e-003	2.8130e-003
tblVehicleEF	MCY	0.87	1.78
tblVehicleEF	MCY	0.72	0.73
tblVehicleEF	MCY	0.54	1.11
tblVehicleEF	MCY	2.25	2.27
tblVehicleEF	MCY	0.57	1.99
tblVehicleEF	MCY	2.22	1.97
tblVehicleEF	MCY	2.1220e-003	2.1100e-003
tblVehicleEF	MCY	6.8500e-004	6.0800e-004
tblVehicleEF	MCY	0.87	1.78
tblVehicleEF	MCY	0.72	0.73
tblVehicleEF	MCY	0.54	1.11
tblVehicleEF	MCY	2.79	2.81
tblVehicleEF	MCY	0.57	1.99
tblVehicleEF	MCY	2.41	2.14
tblVehicleEF	MDV	7.8070e-003	3.3980e-003
tblVehicleEF	MDV	0.01	0.07

tblVehicleEF	MDV	0.90	0.76
tblVehicleEF	MDV	2.48	2.96
tblVehicleEF	MDV	427.63	377.10
tblVehicleEF	MDV	98.24	80.51
tblVehicleEF	MDV	0.11	0.07
tblVehicleEF	MDV	0.22	0.30
tblVehicleEF	MDV	1.7360e-003	1.4070e-003
tblVehicleEF	MDV	2.3850e-003	1.7290e-003
tblVehicleEF	MDV	1.5990e-003	1.2980e-003
tblVehicleEF	MDV	2.1930e-003	1.5900e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.18	0.35
tblVehicleEF	MDV	4.2800e-003	3.6160e-003
tblVehicleEF	MDV	1.0260e-003	7.7300e-004
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.17	0.14
tblVehicleEF	MDV	0.06	0.08
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.10	0.47
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MH	0.02	8.5200e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.32	0.75
tblVehicleEF	MH	4.77	1.88
tblVehicleEF	MH	1,207.96	1,486.32
tblVehicleEF	MH	57.74	17.29

tblVehicleEF	MH	1.27	1.47
tblVehicleEF	MH	0.75	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	9.5600e-004	2.2200e-004
tblVehicleEF	MH	3.2280e-003	3.3000e-003
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	8.7900e-004	2.0400e-004
tblVehicleEF	MH	0.65	0.54
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.22
tblVehicleEF	MH	0.07	0.06
tblVehicleEF	MH	0.02	1.03
tblVehicleEF	MH	0.28	0.09
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.6100e-004	1.7100e-004
tblVehicleEF	MH	0.65	0.54
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	0.26	0.22
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.02	1.03
tblVehicleEF	MH	0.31	0.10
tblVehicleEF	MHD	0.02	4.0000e-003
tblVehicleEF	MHD	4.0330e-003	1.8620e-003
tblVehicleEF	MHD	0.04	9.9270e-003
tblVehicleEF	MHD	0.37	0.44
tblVehicleEF	MHD	0.33	0.24
tblVehicleEF	MHD	5.05	1.13
tblVehicleEF	MHD	134.19	82.82
tblVehicleEF	MHD	1,185.59	1,095.89

tblVehicleEF	MHD	60.16	9.87
tblVehicleEF	MHD	0.38	0.50
tblVehicleEF	MHD	1.10	1.47
tblVehicleEF	MHD	10.21	1.66
tblVehicleEF	MHD	1.2400e-004	4.1500e-004
tblVehicleEF	MHD	3.2100e-003	7.2330e-003
tblVehicleEF	MHD	8.6800e-004	1.2500e-004
tblVehicleEF	MHD	1.1800e-004	3.9700e-004
tblVehicleEF	MHD	3.0640e-003	6.9120e-003
tblVehicleEF	MHD	7.9800e-004	1.1500e-004
tblVehicleEF	MHD	7.4700e-004	3.7500e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.4600e-004	2.2100e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.30	0.05
tblVehicleEF	MHD	1.2930e-003	7.8600e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	6.9000e-004	9.8000e-005
tblVehicleEF	MHD	7.4700e-004	3.7500e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	4.4600e-004	2.2100e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.33	0.06
tblVehicleEF	OBUS	0.01	8.8010e-003
tblVehicleEF	OBUS	7.4220e-003	7.9490e-003
tblVehicleEF	OBUS	0.03	0.02

tblVehicleEF	OBUS	0.24	0.52
tblVehicleEF	OBUS	0.48	0.86
tblVehicleEF	OBUS	5.26	2.78
tblVehicleEF	OBUS	72.50	67.38
tblVehicleEF	OBUS	1,274.49	1,458.49
tblVehicleEF	OBUS	68.77	21.17
tblVehicleEF	OBUS	0.14	0.25
tblVehicleEF	OBUS	0.76	1.10
tblVehicleEF	OBUS	2.13	0.70
tblVehicleEF	OBUS	1.3000e-005	8.3000e-005
tblVehicleEF	OBUS	2.4400e-003	6.0960e-003
tblVehicleEF	OBUS	8.8700e-004	2.1200e-004
tblVehicleEF	OBUS	1.2000e-005	8.0000e-005
tblVehicleEF	OBUS	2.3080e-003	5.8080e-003
tblVehicleEF	OBUS	8.1500e-004	1.9500e-004
tblVehicleEF	OBUS	1.1280e-003	1.6800e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.5900e-004	8.1700e-004
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.33	0.13
tblVehicleEF	OBUS	7.0400e-004	6.4300e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.8000e-004	2.0900e-004
tblVehicleEF	OBUS	1.1280e-003	1.6800e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	5.5900e-004	8.1700e-004
tblVehicleEF	OBUS	0.05	0.06

tblVehicleEF	OBUS	0.04	0.30
tblVehicleEF	OBUS	0.36	0.14
tblVehicleEF	SBUS	0.86	0.02
tblVehicleEF	SBUS	5.8610e-003	2.4230e-003
tblVehicleEF	SBUS	0.06	1.3430e-003
tblVehicleEF	SBUS	2.13	1.30
tblVehicleEF	SBUS	0.39	0.21
tblVehicleEF	SBUS	1.37	0.19
tblVehicleEF	SBUS	1,429.06	294.13
tblVehicleEF	SBUS	1,234.77	970.44
tblVehicleEF	SBUS	11.02	1.11
tblVehicleEF	SBUS	12.28	2.14
tblVehicleEF	SBUS	4.36	2.58
tblVehicleEF	SBUS	19.08	1.61
tblVehicleEF	SBUS	0.01	1.3790e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	1.9000e-004	1.7000e-005
tblVehicleEF	SBUS	9.8550e-003	1.3190e-003
tblVehicleEF	SBUS	2.9270e-003	2.8990e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	1.7500e-004	1.5000e-005
tblVehicleEF	SBUS	4.5300e-004	8.9000e-005
tblVehicleEF	SBUS	4.4210e-003	8.4100e-004
tblVehicleEF	SBUS	0.25	0.09
tblVehicleEF	SBUS	2.2600e-004	4.3000e-005
tblVehicleEF	SBUS	0.11	0.04
tblVehicleEF	SBUS	1.9380e-003	5.5350e-003
tblVehicleEF	SBUS	0.07	7.4670e-003
tblVehicleEF	SBUS	0.01	2.7850e-003

tblVehicleEF	SBUS	0.01	9.2040e-003
tblVehicleEF	SBUS	1.3400e-004	1.1000e-005
tblVehicleEF	SBUS	4.5300e-004	8.9000e-005
tblVehicleEF	SBUS	4.4210e-003	8.4100e-004
tblVehicleEF	SBUS	0.35	0.12
tblVehicleEF	SBUS	2.2600e-004	4.3000e-005
tblVehicleEF	SBUS	0.12	0.05
tblVehicleEF	SBUS	1.9380e-003	5.5350e-003
tblVehicleEF	SBUS	0.08	8.1750e-003
tblVehicleEF	UBUS	0.24	1.10
tblVehicleEF	UBUS	0.07	1.4020e-003
tblVehicleEF	UBUS	3.67	8.13
tblVehicleEF	UBUS	11.64	0.22
tblVehicleEF	UBUS	1,928.48	1,559.19
tblVehicleEF	UBUS	154.02	2.71
tblVehicleEF	UBUS	4.60	0.64
tblVehicleEF	UBUS	12.00	0.02
tblVehicleEF	UBUS	0.48	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.08	4.8830e-003
tblVehicleEF	UBUS	1.3740e-003	4.6000e-005
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	7.1530e-003
tblVehicleEF	UBUS	0.08	4.6640e-003
tblVehicleEF	UBUS	1.2640e-003	4.3000e-005
tblVehicleEF	UBUS	5.0560e-003	1.2400e-004
tblVehicleEF	UBUS	0.09	9.9700e-004
tblVehicleEF	UBUS	2.8400e-003	6.6000e-005
tblVehicleEF	UBUS	0.33	0.02
tblVehicleEF	UBUS	0.02	2.9750e-003

tblVehicleEF	UBUS	0.99	4.7780e-003
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.7530e-003	2.7000e-005
tblVehicleEF	UBUS	5.0560e-003	1.2400e-004
tblVehicleEF	UBUS	0.09	9.9700e-004
tblVehicleEF	UBUS	2.8400e-003	6.6000e-005
tblVehicleEF	UBUS	0.60	1.12
tblVehicleEF	UBUS	0.02	2.9750e-003
tblVehicleEF	UBUS	1.08	5.2320e-003
tblVehicleTrips	ST_TR	7.16	2.38
tblVehicleTrips	ST_TR	5.67	2.38
tblVehicleTrips	ST_TR	2.20	2.38
tblVehicleTrips	SU_TR	6.07	2.12
tblVehicleTrips	SU_TR	4.84	2.12
tblVehicleTrips	SU_TR	2.44	2.12
tblVehicleTrips	WD_TR	6.59	2.40
tblVehicleTrips	WD_TR	5.81	2.40
tblVehicleTrips	WD_TR	2.74	2.40
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2021	0.3554	3.8063	2.4621	4.7700e-003	0.4469	0.1727	0.6196	0.2372	0.1592	0.3965	0.0000	418.5294	418.5294	0.1318	0.0000	421.8243
2022	0.3159	3.0498	3.0080	5.2500e-003	0.0856	0.1491	0.2347	0.0398	0.1392	0.1790	0.0000	455.0998	455.0998	0.1242	0.0000	458.2039
2023	4.8834	1.8928	2.1434	3.5500e-003	0.0000	0.0922	0.0922	0.0000	0.0868	0.0868	0.0000	305.8144	305.8144	0.0720	0.0000	307.6132
2024	4.8047	1.1751	1.4165	2.3600e-003	0.0000	0.0537	0.0537	0.0000	0.0505	0.0505	0.0000	203.1027	203.1027	0.0476	0.0000	204.2919
Maximum	**4.8834**	**3.8063**	**3.0080**	**5.2500e-003**	**0.4469**	**0.1727**	**0.6196**	**0.2372**	**0.1592**	**0.3965**	**0.0000**	**455.0998**	**455.0998**	**0.1318**	**0.0000**	**458.2039**

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					

2021	0.0776	1.5234	2.8708	4.7700e-003	0.2011	7.7500e-003	0.2088	0.1068	7.7500e-003	0.1145	0.0000	418.5289	418.5289	0.1318	0.0000	421.8238
2022	0.0957	2.0124	3.4383	5.2500e-003	0.0385	0.0134	0.0519	0.0179	0.0134	0.0313	0.0000	455.0992	455.0992	0.1242	0.0000	458.2033
2023	4.7459	1.4371	2.3557	3.5500e-003	0.0000	0.0111	0.0111	0.0000	0.0111	0.0111	0.0000	305.8140	305.8140	0.0720	0.0000	307.6128
2024	4.7223	0.9545	1.5644	2.3600e-003	0.0000	7.3600e-003	7.3600e-003	0.0000	7.3600e-003	7.3600e-003	0.0000	203.1025	203.1025	0.0476	0.0000	204.2917
Maximum	**4.7459**	**2.0124**	**3.4383**	**5.2500e-003**	**0.2011**	**0.0134**	**0.2088**	**0.1068**	**0.0134**	**0.1145**	**0.0000**	**455.0992**	**455.0992**	**0.1318**	**0.0000**	**458.2033**

	ROG	NOx	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	**6.93**	**40.27**	**-13.28**	**0.00**	**55.00**	**91.54**	**72.09**	**55.00**	**90.92**	**76.96**	**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	**7-1-2021**	**9-30-2021**	1.2139	0.4546
2	**10-1-2021**	**12-31-2021**	2.9189	1.1349
3	**1-1-2022**	**3-31-2022**	1.6026	0.9222
4	**4-1-2022**	**6-30-2022**	0.6503	0.4461
5	**7-1-2022**	**9-30-2022**	0.5691	0.3761
6	**10-1-2022**	**12-31-2022**	0.5691	0.3761
7	**1-1-2023**	**3-31-2023**	0.5129	0.3679
8	**4-1-2023**	**6-30-2023**	0.5186	0.3720
9	**7-1-2023**	**9-30-2023**	0.5243	0.3761
10	**10-1-2023**	**12-31-2023**	5.2261	5.0712
11	**1-1-2024**	**3-31-2024**	0.4847	0.3720
12	**4-1-2024**	**6-30-2024**	0.4847	0.3720
13	**7-1-2024**	**9-30-2024**	5.0039	4.9279
		Highest	5.2261	5.0712

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	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987
Energy	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	735.8684	735.8684	0.0468	0.0163	741.8985
Mobile	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	53.5389	0.0000	53.5389	3.1641	0.0000	132.6403
Water						0.0000	0.0000		0.0000	0.0000	10.9495	22.4561	33.4056	0.0408	0.0245	41.7123
Total	**4.0792**	**1.1478**	**6.9740**	**0.0122**	**0.9608**	**0.0644**	**1.0253**	**0.2571**	**0.0640**	**0.3210**	**64.4884**	**1,665.0532**	**1,729.5416**	**3.2982**	**0.0411**	**1,824.2461**

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	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987
Energy	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	735.8684	735.8684	0.0468	0.0163	741.8985
Mobile	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	53.5389	0.0000	53.5389	3.1641	0.0000	132.6403
Water						0.0000	0.0000		0.0000	0.0000	10.9495	22.4561	33.4056	0.0408	0.0245	41.7123
Total	**4.0792**	**1.1478**	**6.9740**	**0.0122**	**0.9608**	**0.0644**	**1.0253**	**0.2571**	**0.0640**	**0.3210**	**64.4884**	**1,665.0532**	**1,729.5416**	**3.2982**	**0.0411**	**1,824.2461**

	ROG	NOx	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	7/1/2021	9/8/2021	5	50	
2	Site Preparation	Site Preparation	9/9/2021	10/20/2021	5	30	
3	Grading	Grading	10/21/2021	2/2/2022	5	75	
4	Trenching	Trenching	10/21/2021	2/2/2022	5	75	
5	Building Construction - Condos_Appartment	Building Construction	2/3/2022	10/11/2023	5	440	
6	Paving	Paving	2/3/2022	4/20/2022	5	55	
7	Building Construction - CC	Building Construction	10/12/2023	8/28/2024	5	230	
8	Architectural Coating - Condos_Appartment	Architectural Coating	10/12/2023	11/29/2023	5	35	
9	Architectural Coating - CC	Architectural Coating	8/29/2024	9/25/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30.8

Acres of Paving: 0

Residential Indoor: 1,512,675; Residential Outdoor: 504,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Graders	1	8.00	187	0.41
Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Trenching	Scrapers	2	8.00	367	0.48
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction - Condos_Appartment	Cranes	1	7.00	231	0.29
Building Construction - Condos_Appartment	Forklifts	3	8.00	89	0.20
Building Construction - Condos_Appartment	Generator Sets	1	8.00	84	0.74
Building Construction - Condos_Appartment	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - Condos_Appartment	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction - CC	Cranes	1	7.00	231	0.29
Building Construction - CC	Forklifts	3	8.00	89	0.20
Building Construction - CC	Generator Sets	1	8.00	84	0.74
Building Construction - CC	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction - CC	Welders	1	8.00	46	0.45
Architectural Coating - Condos_Appartment	Air Compressors	1	6.00	78	0.48
Architectural Coating - CC	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Condos_Appartment	9	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Building Construction - CC	9	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Condos_Appartment	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - CC	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9600e-003	0.0000	2.9600e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0020	85.0020	0.0239	0.0000	85.6001
Total	**0.0791**	**0.7860**	**0.5391**	**9.7000e-004**	**2.9600e-003**	**0.0388**	**0.0417**	**4.5000e-004**	**0.0360**	**0.0365**	**0.0000**	**85.0020**	**85.0020**	**0.0239**	**0.0000**	**85.6001**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.3389	0.6169	9.7000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	85.0019	85.0019	0.0239	0.0000	85.6000
Total	**0.0146**	**0.3389**	**0.6169**	**9.7000e-004**	**1.3300e-003**	**1.5400e-003**	**2.8700e-003**	**2.0000e-004**	**1.5400e-003**	**1.7400e-003**	**0.0000**	**85.0019**	**85.0019**	**0.0239**	**0.0000**	**85.6000**

Mitigated Construction Off-Site

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

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591
Total	**0.0583**	**0.6075**	**0.3173**	**5.7000e-004**	**0.2710**	**0.0307**	**0.3017**	**0.1490**	**0.0282**	**0.1772**	**0.0000**	**50.1536**	**50.1536**	**0.0162**	**0.0000**	**50.5591**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1220	0.0000	0.1220	0.0670	0.0000	0.0670	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1824	0.3444	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590
Total	**0.0105**	**0.1824**	**0.3444**	**5.7000e-004**	**0.1220**	**9.3000e-004**	**0.1229**	**0.0670**	**9.3000e-004**	**0.0680**	**0.0000**	**50.1535**	**50.1535**	**0.0162**	**0.0000**	**50.5590**

Mitigated Construction Off-Site

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

3.4 Grading - 2021

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.1729	0.0000	0.1729	0.0878	0.0000	0.0878	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**	**0.1729**	**0.0516**	**0.2245**	**0.0878**	**0.0475**	**0.1353**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0778	0.0000	0.0778	0.0395	0.0000	0.0395	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.5010	0.9548	1.6100e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324

Total	**0.0263**	**0.5010**	**0.9548**	**1.6100e-003**	**0.0778**	**2.6400e-003**	**0.0805**	**0.0395**	**2.6400e-003**	**0.0422**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0856	0.0000	0.0856	0.0398	0.0000	0.0398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**	**0.0856**	**0.0188**	**0.1044**	**0.0398**	**0.0173**	**0.0571**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0385	0.0000	0.0385	0.0179	0.0000	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.2216	0.4223	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0116**	**0.2216**	**0.4223**	**7.1000e-004**	**0.0385**	**1.1700e-003**	**0.0397**	**0.0179**	**1.1700e-003**	**0.0191**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

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

3.5 Trenching - 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	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**		**0.0516**	**0.0516**		**0.0475**	**0.0475**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0263	0.5010	0.9548	1.6100e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324
Total	**0.0263**	**0.5010**	**0.9548**	**1.6100e-003**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

3.5 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0116	0.2216	0.4223	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218

Total	**0.0116**	**0.2216**	**0.4223**	**7.1000e-004**		**1.1700e-003**	**1.1700e-003**		**1.1700e-003**	**1.1700e-003**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

3.6 Building Construction - Condos_Appartment - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2022	1.8505	1.9391	3.1900e-003		0.0959	0.0959		0.0902	0.0902	0.0000	274.5944	274.5944	0.0658	0.0000	276.2390
Total	**0.2022**	**1.8505**	**1.9391**	**3.1900e-003**		**0.0959**	**0.0959**		**0.0902**	**0.0902**	**0.0000**	**274.5944**	**274.5944**	**0.0658**	**0.0000**	**276.2390**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0632	1.2931	2.1180	3.1900e-003		0.0100	0.0100		0.0100	0.0100	0.0000	274.5941	274.5941	0.0658	0.0000	276.2387
Total	**0.0632**	**1.2931**	**2.1180**	**3.1900e-003**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**274.5941**	**274.5941**	**0.0658**	**0.0000**	**276.2387**

Mitigated Construction Off-Site

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

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

3.6 Building Construction - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1596	1.4601	1.6488	2.7300e-003		0.0710	0.0710		0.0668	0.0668	0.0000	235.2818	235.2818	0.0560	0.0000	236.6811
Total	**0.1596**	**1.4601**	**1.6488**	**2.7300e-003**		**0.0710**	**0.0710**		**0.0668**	**0.0668**	**0.0000**	**235.2818**	**235.2818**	**0.0560**	**0.0000**	**236.6811**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0542	1.1076	1.8142	2.7300e-003		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	235.2815	235.2815	0.0560	0.0000	236.6808
Total	**0.0542**	**1.1076**	**1.8142**	**2.7300e-003**		**8.5900e-003**	**8.5900e-003**		**8.5900e-003**	**8.5900e-003**	**0.0000**	**235.2815**	**235.2815**	**0.0560**	**0.0000**	**236.6808**

Mitigated Construction Off-Site

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

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0758	55.0758	0.0178	0.0000	55.5211
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0303**	**0.3059**	**0.4010**	**6.3000e-004**		**0.0156**	**0.0156**		**0.0144**	**0.0144**	**0.0000**	**55.0758**	**55.0758**	**0.0178**	**0.0000**	**55.5211**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1900e-003	0.2761	0.4756	6.3000e-004		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	55.0757	55.0757	0.0178	0.0000	55.5210

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1900e-003**	**0.2761**	**0.4756**	**6.3000e-004**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**55.0757**	**55.0757**	**0.0178**	**0.0000**	**55.5210**

Mitigated Construction Off-Site

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

3.8 Building Construction - CC - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	**0.0448**	**0.4100**	**0.4630**	**7.7000e-004**		**0.0199**	**0.0199**		**0.0188**	**0.0188**	**0.0000**	**66.0644**	**66.0644**	**0.0157**	**0.0000**	**66.4572**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.3110	0.5094	7.7000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	**0.0152**	**0.3110**	**0.5094**	**7.7000e-004**		**2.4100e-003**	**2.4100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**66.0643**	**66.0643**	**0.0157**	**0.0000**	**66.4572**

Mitigated Construction Off-Site

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

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

3.8 Building Construction - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1273	1.1629	1.3984	2.3300e-003		0.0531	0.0531		0.0499	0.0499	0.0000	200.5495	200.5495	0.0474	0.0000	201.7351
Total	**0.1273**	**1.1629**	**1.3984**	**2.3300e-003**		**0.0531**	**0.0531**		**0.0499**	**0.0499**	**0.0000**	**200.5495**	**200.5495**	**0.0474**	**0.0000**	**201.7351**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0462	0.9439	1.5461	2.3300e-003		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003	0.0000	200.5492	200.5492	0.0474	0.0000	201.7348
Total	**0.0462**	**0.9439**	**1.5461**	**2.3300e-003**		**7.3200e-003**	**7.3200e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**200.5492**	**200.5492**	**0.0474**	**0.0000**	**201.7348**

Mitigated Construction Off-Site

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

3.9 Architectural Coating - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.6756					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**4.6790**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.6756					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	9.5000e-004	0.0186	0.0321	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**4.6766**	**0.0186**	**0.0321**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Mitigated Construction Off-Site

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

3.10 Architectural Coating - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.6756					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**4.6774**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.6756					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**4.6762**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

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

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948
Unmitigated	0.4339	0.6160	3.1986	9.2700e-003	0.9608	7.3200e-003	0.9682	0.2571	6.8500e-003	0.2639	0.0000	869.2247	869.2247	0.0388	0.0000	870.1948

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	768.00	761.60	678.40	1,742,104	1,742,104
Condo/Townhouse	132.00	130.90	116.60	299,424	299,424
Congregate Care (Assisted Living)	240.00	238.00	212.00	544,407	544,407
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,140.00	1,130.50	1,007.00	2,585,935	2,585,935

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
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Condo/Townhouse	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Congregate Care (Assisted Living)	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Enclosed Parking with Elevator	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823
Parking Lot	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823

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	275.1018	275.1018	0.0380	7.8600e-003	278.3939

Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	275.1018	275.1018	0.0380	7.8600e-003	278.3939	
NaturalGas Mitigated	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	460.7666	460.7666	8.8300e-003	8.4500e-003	463.5047	
NaturalGas Unmitigated	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	460.7666	460.7666	8.8300e-003	8.4500e-003	463.5047	

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					
Apartments Low Rise	6.51184e+006	0.0351	0.3001	0.1277	1.9200e-003		0.0243	0.0243		0.0243	0.0243	0.0000	347.4966	347.4966	6.6600e-003	6.3700e-003	349.5616
Condo/Townhouse	1.24956e+006	6.7400e-003	0.0576	0.0245	3.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	66.6811	66.6811	1.2800e-003	1.2200e-003	67.0773
Congregate Care (Assisted Living)	873043	4.7100e-003	0.0402	0.0171	2.6000e-004		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	46.5889	46.5889	8.9000e-004	8.5000e-004	46.8658
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0466**	**0.3979**	**0.1693**	**2.5500e-003**		**0.0322**	**0.0322**		**0.0322**	**0.0322**	**0.0000**	**460.7666**	**460.7666**	**8.8300e-003**	**8.4400e-003**	**463.5047**

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					
Apartments Low Rise	6.51184e+006	0.0351	0.3001	0.1277	1.9200e-003		0.0243	0.0243		0.0243	0.0243	0.0000	347.4966	347.4966	6.6600e-003	6.3700e-003	349.5616
Condo/Townhouse	1.24956e+006	6.7400e-003	0.0576	0.0245	3.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	66.6811	66.6811	1.2800e-003	1.2200e-003	67.0773

Congregate Care (Assisted Living)	873043	4.7100e-003	0.0402	0.0171	2.6000e-004		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	46.5889	46.5889	8.9000e-004	8.5000e-004	46.8658
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0466**	**0.3979**	**0.1693**	**2.5500e-003**		**0.0322**	**0.0322**		**0.0322**	**0.0322**	**0.0000**	**460.7666**	**460.7666**	**8.8300e-003**	**8.4400e-003**	**463.5047**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.34918e+006	128.5151	0.0178	3.6700e-003	130.0530
Condo/Townhouse	275035	26.1983	3.6200e-003	7.5000e-004	26.5118
Congregate Care (Assisted Living)	422199	40.2163	5.5500e-003	1.1500e-003	40.6976
Enclosed Parking with Elevator	809114	77.0716	0.0106	2.2000e-003	77.9939
Parking Lot	16275	3.1005	4.3000e-004	9.0000e-005	3.1376
Total		**275.1018**	**0.0380**	**7.8600e-003**	**278.3939**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.34918e+006	128.5151	0.0178	3.6700e-003	130.0530

Condo/Townhouse	275035	26.1983	3.6200e-003	7.5000e-004	26.5118
Congregate Care (Assisted Living)	422199	40.2163	5.5500e-003	1.1500e-003	40.6976
Enclosed Parking with Elevator	809114	77.0716	0.0106	2.2000e-003	77.9939
Parking Lot	16275	3.1005	4.3000e-004	9.0000e-005	3.1376
Total		**275.1018**	**0.0380**	**7.8600e-003**	**278.3939**

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	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987
Unmitigated	3.5712	0.0570	3.5360	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.9100e-003	3.5000e-004	24.9987

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	0.5307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9200e-003	0.0164	6.9700e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9756	18.9756	3.6000e-004	3.5000e-004	19.0883
Landscaping	0.1063	0.0406	3.5290	1.9000e-004		0.0196	0.0196		0.0196	0.0196	0.0000	5.7718	5.7718	5.5400e-003	0.0000	5.9104
Total	**3.5712**	**0.0570**	**3.5360**	**2.9000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**24.7474**	**24.7474**	**5.9000e-003**	**3.5000e-004**	**24.9987**

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	0.5307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9200e-003	0.0164	6.9700e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9756	18.9756	3.6000e-004	3.5000e-004	19.0883
Landscaping	0.1063	0.0406	3.5290	1.9000e-004		0.0196	0.0196		0.0196	0.0196	0.0000	5.7718	5.7718	5.5400e-003	0.0000	5.9104
Total	**3.5712**	**0.0570**	**3.5360**	**2.9000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**24.7474**	**24.7474**	**5.9000e-003**	**3.5000e-004**	**24.9987**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e

Category	MT/yr			
Mitigated	33.4056	0.0408	0.0245	41.7123
Unmitigated	33.4056	0.0408	0.0245	41.7123

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
Condo/Townhouse	3.58347 / 2.25915	3.8680	4.7200e-003	2.8300e-003	4.8299
Congregate Care (Assisted Living)	6.5154 / 4.10754	7.0328	8.5900e-003	5.1500e-003	8.7815
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**33.4056**	**0.0408**	**0.0245**	**41.7123**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009

Condo/Townhouse	3.58347 / 2.25915	3.8680	4.7200e-003	2.8300e-003	4.8299
Congregate Care (Assisted Living)	6.5154 / 4.10754	7.0328	8.5900e-003	5.1500e-003	8.7815
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**33.4056**	**0.0408**	**0.0245**	**41.7123**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	53.5389	3.1641	0.0000	132.6403
Unmitigated	53.5389	3.1641	0.0000	132.6403

8.2 Waste by Land Use

Unmitigated

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

Apartments Low Rise	147.2	29.8803	1.7659	0.0000	74.0271
Condo/Townhouse	25.3	5.1357	0.3035	0.0000	12.7234
Congregate Care (Assisted Living)	91.25	18.5229	1.0947	0.0000	45.8898
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**53.5389**	**3.1641**	**0.0000**	**132.6403**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	147.2	29.8803	1.7659	0.0000	74.0271
Condo/Townhouse	25.3	5.1357	0.3035	0.0000	12.7234
Congregate Care (Assisted Living)	91.25	18.5229	1.0947	0.0000	45.8898
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**53.5389**	**3.1641**	**0.0000**	**132.6403**

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	670.5	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 (... 750 HP)	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Total	**0.0275**	**0.0768**	**0.0701**	**1.3000e-004**		**4.0400e-003**	**4.0400e-003**		**4.0400e-003**	**4.0400e-003**	**0.0000**	**12.7567**	**12.7567**	**1.7900e-003**	**0.0000**	**12.8014**

11.0 Vegetation

Spieker Senior Continuing Care Community - Walnut Creek - Contra Costa County, Annual

Spieker Senior Continuing Care Community - 2030 Operations

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	383.00	Space	0.00	138,074.00	0
Parking Lot	112.00	Space	0.00	46,500.00	0
Parking Lot	99.00	Space	0.00	46,500.00	0
Apartments Low Rise	320.00	Dwelling Unit	30.80	550,000.00	915
Condo/Townhouse	55.00	Dwelling Unit	0.00	110,000.00	157
Congregate Care (Assisted Living)	100.00	Dwelling Unit	0.00	87,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	5			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity Factor based on 2017 PG&E Published report

Land Use - Land uses per project description and conversation with Mike Loewke on 6-25-20. Sq ft from construction data sheet provided by client.

Construction Phase - CalEEMod Default for Building Construction and Coatings of CC Center and Condos/Appartments

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based on Grading

Trips and VMT - Concrete and asphalt haul trip length = vendor length. Concrete and Asphalt haul trips estimated from site plans. See trips .CSV file for trip info.

Demolition - Based on Estimate from Google Earth

Vehicle Trips - Based on daily trip rate of 2.399 per DU (ITE LU Code 255). Sat and Sun based on composite ratio of weekday to Sat/Sun CalEEMod Defaults applied to provided weekday rate.

Vehicle Emission Factors - From EMFAC2017 for CC County, 2025

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood burning hearths. Gas only.

Energy Use -

Water And Wastewater - Assume 100% WWTP

Construction Off-road Equipment Mitigation - Typical Mitigation Scenario

Stationary Sources - Emergency Generators and Fire Pumps - Assume the CC Center will have an emergency generator.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
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tblFireplaces	NumberGas	15.00	32.00
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tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
tblFleetMix	HHD	0.03	0.02
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tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
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tblFleetMix	UBUS	1.5380e-003	8.5700e-004
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tblLandUse	LandUseSquareFeet	39,600.00	46,500.00
tblLandUse	LandUseSquareFeet	320,000.00	550,000.00
tblLandUse	LandUseSquareFeet	55,000.00	110,000.00
tblLandUse	LandUseSquareFeet	100,000.00	87,000.00

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tblLandUse	LotAcreage	6.25	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
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tblTripsAndVMT	HaulingTripLength	20.00	7.30
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tblTripsAndVMT	VendorTripNumber	89.00	0.00
tblTripsAndVMT	VendorTripNumber	89.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
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tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
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tblVehicleEF	LHD1	0.17	0.05
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tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.1400e-004	3.8000e-004
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tblVehicleEF	LHD2	0.04	0.14
tblVehicleEF	LHD2	0.04	0.02
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tblVehicleEF	LHD2	2.3000e-004	6.2000e-005
tblVehicleEF	LHD2	4.7100e-004	5.8000e-004

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tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	3.1400e-004	3.8000e-004
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tblVehicleEF	LHD2	0.04	0.14
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tblVehicleEF	MCY	0.47	0.33
tblVehicleEF	MCY	0.16	0.25
tblVehicleEF	MCY	18.40	18.61
tblVehicleEF	MCY	10.37	9.22
tblVehicleEF	MCY	175.15	212.79
tblVehicleEF	MCY	43.39	60.03
tblVehicleEF	MCY	1.15	1.15
tblVehicleEF	MCY	0.32	0.27
tblVehicleEF	MCY	2.2020e-003	2.1690e-003
tblVehicleEF	MCY	3.3400e-003	2.8570e-003
tblVehicleEF	MCY	2.0550e-003	2.0240e-003
tblVehicleEF	MCY	3.1270e-003	2.6750e-003
tblVehicleEF	MCY	0.84	1.75
tblVehicleEF	MCY	0.63	0.68
tblVehicleEF	MCY	0.51	1.06
tblVehicleEF	MCY	2.19	2.20
tblVehicleEF	MCY	0.44	1.58
tblVehicleEF	MCY	2.14	1.91
tblVehicleEF	MCY	2.1170e-003	2.1060e-003
tblVehicleEF	MCY	6.6600e-004	5.9400e-004
tblVehicleEF	MCY	0.84	1.75
tblVehicleEF	MCY	0.63	0.68
tblVehicleEF	MCY	0.51	1.06
tblVehicleEF	MCY	2.74	2.75

tblVehicleEF	MCY	0.44	1.58
tblVehicleEF	MCY	2.34	2.08
tblVehicleEF	MDV	5.1140e-003	2.0500e-003
tblVehicleEF	MDV	8.3520e-003	0.05
tblVehicleEF	MDV	0.66	0.58
tblVehicleEF	MDV	1.69	2.44
tblVehicleEF	MDV	367.14	333.72
tblVehicleEF	MDV	84.34	70.50
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.13	0.20
tblVehicleEF	MDV	1.3670e-003	1.0690e-003
tblVehicleEF	MDV	2.0780e-003	1.3740e-003
tblVehicleEF	MDV	1.2590e-003	9.8500e-004
tblVehicleEF	MDV	1.9110e-003	1.2630e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.14	0.12
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.01	8.0130e-003
tblVehicleEF	MDV	0.09	0.39
tblVehicleEF	MDV	0.11	0.22
tblVehicleEF	MDV	3.6720e-003	3.0820e-003
tblVehicleEF	MDV	8.7200e-004	6.5200e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.14	0.12
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.09	0.39
tblVehicleEF	MDV	0.12	0.25
tblVehicleEF	MH	9.2540e-003	5.4430e-003
tblVehicleEF	MH	0.02	0.02

tblVehicleEF	MH	0.52	0.36
tblVehicleEF	MH	3.82	1.61
tblVehicleEF	MH	1,188.65	1,366.60
tblVehicleEF	MH	56.76	15.37
tblVehicleEF	MH	0.94	1.24
tblVehicleEF	MH	0.65	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	8.5600e-004	1.9600e-004
tblVehicleEF	MH	3.2250e-003	3.3120e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	7.8700e-004	1.8000e-004
tblVehicleEF	MH	0.47	0.36
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.20	0.16
tblVehicleEF	MH	0.04	0.04
tblVehicleEF	MH	0.01	0.56
tblVehicleEF	MH	0.23	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3400e-004	1.5200e-004
tblVehicleEF	MH	0.47	0.36
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.20	0.16
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	0.01	0.56
tblVehicleEF	MH	0.25	0.08
tblVehicleEF	MHD	0.02	4.2610e-003
tblVehicleEF	MHD	2.8950e-003	1.2290e-003
tblVehicleEF	MHD	0.03	9.3810e-003
tblVehicleEF	MHD	0.37	0.46

tblVehicleEF	MHD	0.25	0.17
tblVehicleEF	MHD	3.80	0.97
tblVehicleEF	MHD	131.63	77.33
tblVehicleEF	MHD	1,170.78	1,028.73
tblVehicleEF	MHD	59.69	9.38
tblVehicleEF	MHD	0.35	0.42
tblVehicleEF	MHD	1.03	1.43
tblVehicleEF	MHD	9.95	1.66
tblVehicleEF	MHD	6.3000e-005	2.0900e-004
tblVehicleEF	MHD	3.0390e-003	7.0780e-003
tblVehicleEF	MHD	8.3200e-004	1.2200e-004
tblVehicleEF	MHD	6.1000e-005	2.0000e-004
tblVehicleEF	MHD	2.9000e-003	6.7630e-003
tblVehicleEF	MHD	7.6500e-004	1.1200e-004
tblVehicleEF	MHD	6.0600e-004	3.0000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.9500e-004	1.9400e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.08
tblVehicleEF	MHD	0.24	0.05
tblVehicleEF	MHD	1.2680e-003	7.3400e-004
tblVehicleEF	MHD	0.01	9.8370e-003
tblVehicleEF	MHD	6.6300e-004	9.3000e-005
tblVehicleEF	MHD	6.0600e-004	3.0000e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	3.9500e-004	1.9400e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.08

tblVehicleEF	MHD	0.26	0.05
tblVehicleEF	OBUS	0.01	8.6630e-003
tblVehicleEF	OBUS	4.9120e-003	4.2740e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.24	0.55
tblVehicleEF	OBUS	0.32	0.45
tblVehicleEF	OBUS	4.48	2.37
tblVehicleEF	OBUS	79.22	71.40
tblVehicleEF	OBUS	1,258.86	1,312.44
tblVehicleEF	OBUS	67.42	18.77
tblVehicleEF	OBUS	0.16	0.29
tblVehicleEF	OBUS	0.68	1.05
tblVehicleEF	OBUS	2.12	0.77
tblVehicleEF	OBUS	1.5000e-005	9.8000e-005
tblVehicleEF	OBUS	2.4590e-003	6.3080e-003
tblVehicleEF	OBUS	9.7400e-004	2.1300e-004
tblVehicleEF	OBUS	1.4000e-005	9.3000e-005
tblVehicleEF	OBUS	2.3230e-003	6.0110e-003
tblVehicleEF	OBUS	8.9600e-004	1.9600e-004
tblVehicleEF	OBUS	1.1400e-003	1.5430e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	5.7000e-004	7.6900e-004
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.04	0.29
tblVehicleEF	OBUS	0.28	0.11
tblVehicleEF	OBUS	7.6800e-004	6.8100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.5300e-004	1.8600e-004
tblVehicleEF	OBUS	1.1400e-003	1.5430e-003

tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	5.7000e-004	7.6900e-004
tblVehicleEF	OBUS	0.04	0.03
tblVehicleEF	OBUS	0.04	0.29
tblVehicleEF	OBUS	0.31	0.12
tblVehicleEF	SBUS	0.84	0.02
tblVehicleEF	SBUS	4.4490e-003	1.7320e-003
tblVehicleEF	SBUS	0.05	1.4050e-003
tblVehicleEF	SBUS	2.33	1.41
tblVehicleEF	SBUS	0.34	0.17
tblVehicleEF	SBUS	1.52	0.20
tblVehicleEF	SBUS	1,368.51	273.69
tblVehicleEF	SBUS	1,209.42	897.42
tblVehicleEF	SBUS	13.60	1.14
tblVehicleEF	SBUS	7.74	1.74
tblVehicleEF	SBUS	2.53	1.84
tblVehicleEF	SBUS	18.62	1.82
tblVehicleEF	SBUS	3.9600e-003	8.1100e-004
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.5900e-004	1.9000e-005
tblVehicleEF	SBUS	3.7880e-003	7.7600e-004
tblVehicleEF	SBUS	2.9120e-003	2.8940e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.3800e-004	1.7000e-005
tblVehicleEF	SBUS	6.7200e-004	1.2700e-004
tblVehicleEF	SBUS	6.3100e-003	1.1990e-003
tblVehicleEF	SBUS	0.28	0.09
tblVehicleEF	SBUS	3.4000e-004	6.3000e-005

tblVehicleEF	SBUS	0.08	0.03
tblVehicleEF	SBUS	2.8730e-003	8.1830e-003
tblVehicleEF	SBUS	0.08	7.7860e-003
tblVehicleEF	SBUS	0.01	2.5930e-003
tblVehicleEF	SBUS	0.01	8.5140e-003
tblVehicleEF	SBUS	1.6200e-004	1.1000e-005
tblVehicleEF	SBUS	6.7200e-004	1.2700e-004
tblVehicleEF	SBUS	6.3100e-003	1.1990e-003
tblVehicleEF	SBUS	0.39	0.13
tblVehicleEF	SBUS	3.4000e-004	6.3000e-005
tblVehicleEF	SBUS	0.09	0.03
tblVehicleEF	SBUS	2.8730e-003	8.1830e-003
tblVehicleEF	SBUS	0.09	8.5240e-003
tblVehicleEF	UBUS	0.22	1.60
tblVehicleEF	UBUS	0.07	1.4580e-003
tblVehicleEF	UBUS	2.98	12.04
tblVehicleEF	UBUS	10.32	0.21
tblVehicleEF	UBUS	1,885.93	1,536.63
tblVehicleEF	UBUS	151.48	2.68
tblVehicleEF	UBUS	3.12	0.61
tblVehicleEF	UBUS	11.91	0.02
tblVehicleEF	UBUS	0.48	0.08
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.05	4.6730e-003
tblVehicleEF	UBUS	1.5000e-003	4.6000e-005
tblVehicleEF	UBUS	0.21	0.03
tblVehicleEF	UBUS	3.0000e-003	7.1530e-003
tblVehicleEF	UBUS	0.05	4.4630e-003
tblVehicleEF	UBUS	1.3790e-003	4.3000e-005
tblVehicleEF	UBUS	4.5120e-003	3.2600e-004

tblVehicleEF	UBUS	0.08	3.6920e-003
tblVehicleEF	UBUS	2.6730e-003	2.1700e-004
tblVehicleEF	UBUS	0.18	0.02
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	0.92	4.9160e-003
tblVehicleEF	UBUS	0.02	9.8390e-003
tblVehicleEF	UBUS	1.7050e-003	2.7000e-005
tblVehicleEF	UBUS	4.5120e-003	3.2600e-004
tblVehicleEF	UBUS	0.08	3.6920e-003
tblVehicleEF	UBUS	2.6730e-003	2.1700e-004
tblVehicleEF	UBUS	0.42	1.63
tblVehicleEF	UBUS	0.02	0.01
tblVehicleEF	UBUS	1.01	5.3830e-003
tblVehicleTrips	ST_TR	7.16	2.38
tblVehicleTrips	ST_TR	5.67	2.38
tblVehicleTrips	ST_TR	2.20	2.38
tblVehicleTrips	SU_TR	6.07	2.12
tblVehicleTrips	SU_TR	4.84	2.12
tblVehicleTrips	SU_TR	2.44	2.12
tblVehicleTrips	WD_TR	6.59	2.40
tblVehicleTrips	WD_TR	5.81	2.40
tblVehicleTrips	WD_TR	2.74	2.40
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2021	0.3554	3.8063	2.4621	4.7700e-003	0.4469	0.1727	0.6196	0.2372	0.1592	0.3965	0.0000	418.5294	418.5294	0.1318	0.0000	421.8243
2022	0.3159	3.0498	3.0080	5.2500e-003	0.0856	0.1491	0.2347	0.0398	0.1392	0.1790	0.0000	455.0998	455.0998	0.1242	0.0000	458.2039
2023	5.5144	1.8928	2.1434	3.5500e-003	0.0000	0.0922	0.0922	0.0000	0.0868	0.0868	0.0000	305.8144	305.8144	0.0720	0.0000	307.6132
2024	5.4357	1.1751	1.4165	2.3600e-003	0.0000	0.0537	0.0537	0.0000	0.0505	0.0505	0.0000	203.1027	203.1027	0.0476	0.0000	204.2919
Maximum	**5.5144**	**3.8063**	**3.0080**	**5.2500e-003**	**0.4469**	**0.1727**	**0.6196**	**0.2372**	**0.1592**	**0.3965**	**0.0000**	**455.0998**	**455.0998**	**0.1318**	**0.0000**	**458.2039**

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					
2021	0.0776	1.5234	2.8708	4.7700e-003	0.2011	7.7500e-003	0.2088	0.1068	7.7500e-003	0.1145	0.0000	418.5289	418.5289	0.1318	0.0000	421.8238
2022	0.0957	2.0124	3.4383	5.2500e-003	0.0385	0.0134	0.0519	0.0179	0.0134	0.0313	0.0000	455.0992	455.0992	0.1242	0.0000	458.2033
2023	5.3769	1.4371	2.3557	3.5500e-003	0.0000	0.0111	0.0111	0.0000	0.0111	0.0111	0.0000	305.8140	305.8140	0.0720	0.0000	307.6128
2024	5.3533	0.9545	1.5644	2.3600e-003	0.0000	7.3600e-003	7.3600e-003	0.0000	7.3600e-003	7.3600e-003	0.0000	203.1025	203.1025	0.0476	0.0000	204.2917
Maximum	**5.3769**	**2.0124**	**3.4383**	**5.2500e-003**	**0.2011**	**0.0134**	**0.2088**	**0.1068**	**0.0134**	**0.1145**	**0.0000**	**455.0992**	**455.0992**	**0.1318**	**0.0000**	**458.2033**

	ROG	NOx	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	**6.18**	**40.27**	**-13.28**	**0.00**	**55.00**	**91.54**	**72.09**	**55.00**	**90.92**	**76.96**	**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	**7-1-2021**	**9-30-2021**	1.2139	0.4546
2	**10-1-2021**	**12-31-2021**	2.9189	1.1349
3	**1-1-2022**	**3-31-2022**	1.6026	0.9222
4	**4-1-2022**	**6-30-2022**	0.6503	0.4461
5	**7-1-2022**	**9-30-2022**	0.5691	0.3761
6	**10-1-2022**	**12-31-2022**	0.5691	0.3761
7	**1-1-2023**	**3-31-2023**	0.5129	0.3679
8	**4-1-2023**	**6-30-2023**	0.5186	0.3720
9	**7-1-2023**	**9-30-2023**	0.5243	0.3761
10	**10-1-2023**	**12-31-2023**	5.8571	5.7022
11	**1-1-2024**	**3-31-2024**	0.4847	0.3720
12	**4-1-2024**	**6-30-2024**	0.4847	0.3720
13	**7-1-2024**	**9-30-2024**	5.6349	5.5590

		Highest	5.8571	5.7022

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	3.5706	0.0570	3.5300	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.8800e-003	3.5000e-004	24.9980
Energy	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	735.8684	735.8684	0.0468	0.0163	741.8985
Mobile	0.3431	0.5198	2.6729	8.4000e-003	0.9617	5.9800e-003	0.9677	0.2574	5.6000e-003	0.2630	0.0000	783.6336	783.6336	0.0311	0.0000	784.4119
Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	53.5389	0.0000	53.5389	3.1641	0.0000	132.6403
Water						0.0000	0.0000		0.0000	0.0000	10.9495	22.4561	33.4056	0.0408	0.0245	41.7123
Total	**3.9877**	**1.0515**	**6.4423**	**0.0114**	**0.9617**	**0.0631**	**1.0248**	**0.2574**	**0.0627**	**0.3201**	**64.4884**	**1,579.4621**	**1,643.9504**	**3.2905**	**0.0411**	**1,738.4625**

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	3.5706	0.0570	3.5300	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.8800e-003	3.5000e-004	24.9980
Energy	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	735.8684	735.8684	0.0468	0.0163	741.8985
Mobile	0.3431	0.5198	2.6729	8.4000e-003	0.9617	5.9800e-003	0.9677	0.2574	5.6000e-003	0.2630	0.0000	783.6336	783.6336	0.0311	0.0000	784.4119

Stationary	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Waste						0.0000	0.0000		0.0000	0.0000	53.5389	0.0000	53.5389	3.1641	0.0000	132.6403
Water						0.0000	0.0000		0.0000	0.0000	10.9495	22.4561	33.4056	0.0408	0.0245	41.7123
Total	**3.9877**	**1.0515**	**6.4423**	**0.0114**	**0.9617**	**0.0631**	**1.0248**	**0.2574**	**0.0627**	**0.3201**	**64.4884**	**1,579.4621**	**1,643.9504**	**3.2905**	**0.0411**	**1,738.4625**

	ROG	NOx	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	7/1/2021	9/8/2021	5	50	
2	Site Preparation	Site Preparation	9/9/2021	10/20/2021	5	30	
3	Grading	Grading	10/21/2021	2/2/2022	5	75	
4	Trenching	Trenching	10/21/2021	2/2/2022	5	75	
5	Building Construction - Condos, Appartment	Building Construction	2/3/2022	10/11/2023	5	440	
6	Paving	Paving	2/3/2022	4/20/2022	5	55	
7	Building Construction - CC	Building Construction	10/12/2023	8/28/2024	5	230	
8	Architectural Coating - Condos, Appartment	Architectural Coating	10/12/2023	11/29/2023	5	35	
9	Architectural Coating - CC	Architectural Coating	8/29/2024	9/25/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 30.8

Acres of Paving: 0

Residential Indoor: 1,512,675; Residential Outdoor: 504,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

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

Architectural Coating - CC	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Condos_Appartment	9	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Building Construction - CC	9	0.00	0.00	0.00	10.80	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Condos_Appartment	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - CC	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9600e-003	0.0000	2.9600e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0791	0.7860	0.5391	9.7000e-004		0.0388	0.0388		0.0360	0.0360	0.0000	85.0020	85.0020	0.0239	0.0000	85.6001

Total	**0.0791**	**0.7860**	**0.5391**	**9.7000e-004**	**2.9600e-003**	**0.0388**	**0.0417**	**4.5000e-004**	**0.0360**	**0.0365**	**0.0000**	**85.0020**	**85.0020**	**0.0239**	**0.0000**	**85.6001**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.3389	0.6169	9.7000e-004		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	85.0019	85.0019	0.0239	0.0000	85.6000
Total	**0.0146**	**0.3389**	**0.6169**	**9.7000e-004**	**1.3300e-003**	**1.5400e-003**	**2.8700e-003**	**2.0000e-004**	**1.5400e-003**	**1.7400e-003**	**0.0000**	**85.0019**	**85.0019**	**0.0239**	**0.0000**	**85.6000**

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0583	0.6075	0.3173	5.7000e-004		0.0307	0.0307		0.0282	0.0282	0.0000	50.1536	50.1536	0.0162	0.0000	50.5591
Total	**0.0583**	**0.6075**	**0.3173**	**5.7000e-004**	**0.2710**	**0.0307**	**0.3017**	**0.1490**	**0.0282**	**0.1772**	**0.0000**	**50.1536**	**50.1536**	**0.0162**	**0.0000**	**50.5591**

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1220	0.0000	0.1220	0.0670	0.0000	0.0670	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1824	0.3444	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	50.1535	50.1535	0.0162	0.0000	50.5590
Total	**0.0105**	**0.1824**	**0.3444**	**5.7000e-004**	**0.1220**	**9.3000e-004**	**0.1229**	**0.0670**	**9.3000e-004**	**0.0680**	**0.0000**	**50.1535**	**50.1535**	**0.0162**	**0.0000**	**50.5590**

Mitigated Construction Off-Site

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

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

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1729	0.0000	0.1729	0.0878	0.0000	0.0878	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**	**0.1729**	**0.0516**	**0.2245**	**0.0878**	**0.0475**	**0.1353**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0778	0.0000	0.0778	0.0395	0.0000	0.0395	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.5010	0.9548	1.6100e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324
Total	**0.0263**	**0.5010**	**0.9548**	**1.6100e-003**	**0.0778**	**2.6400e-003**	**0.0805**	**0.0395**	**2.6400e-003**	**0.0422**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

3.4 Grading - 2022

Unmitigated Construction On-Site

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

Fugitive Dust					0.0856	0.0000	0.0856	0.0398	0.0000	0.0398	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**	**0.0856**	**0.0188**	**0.1044**	**0.0398**	**0.0173**	**0.0571**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0385	0.0000	0.0385	0.0179	0.0000	0.0179	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.2216	0.4223	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0116**	**0.2216**	**0.4223**	**7.1000e-004**	**0.0385**	**1.1700e-003**	**0.0397**	**0.0179**	**1.1700e-003**	**0.0191**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

3.5 Trenching - 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	0.1090	1.2064	0.8028	1.6100e-003		0.0516	0.0516		0.0475	0.0475	0.0000	141.6870	141.6870	0.0458	0.0000	142.8326
Total	**0.1090**	**1.2064**	**0.8028**	**1.6100e-003**		**0.0516**	**0.0516**		**0.0475**	**0.0475**	**0.0000**	**141.6870**	**141.6870**	**0.0458**	**0.0000**	**142.8326**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0263	0.5010	0.9548	1.6100e-003		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	141.6868	141.6868	0.0458	0.0000	142.8324
Total	**0.0263**	**0.5010**	**0.9548**	**1.6100e-003**		**2.6400e-003**	**2.6400e-003**		**2.6400e-003**	**2.6400e-003**	**0.0000**	**141.6868**	**141.6868**	**0.0458**	**0.0000**	**142.8324**

Mitigated Construction Off-Site

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

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

3.5 Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**		**0.0188**	**0.0188**		**0.0173**	**0.0173**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0116	0.2216	0.4223	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**0.0116**	**0.2216**	**0.4223**	**7.1000e-004**		**1.1700e-003**	**1.1700e-003**		**1.1700e-003**	**1.1700e-003**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

Mitigated Construction Off-Site

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

3.6 Building Construction - Condos_Appartment - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2022	1.8505	1.9391	3.1900e-003		0.0959	0.0959		0.0902	0.0902	0.0000	274.5944	274.5944	0.0658	0.0000	276.2390
Total	**0.2022**	**1.8505**	**1.9391**	**3.1900e-003**		**0.0959**	**0.0959**		**0.0902**	**0.0902**	**0.0000**	**274.5944**	**274.5944**	**0.0658**	**0.0000**	**276.2390**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0632	1.2931	2.1180	3.1900e-003		0.0100	0.0100		0.0100	0.0100	0.0000	274.5941	274.5941	0.0658	0.0000	276.2387

Total	**0.0632**	**1.2931**	**2.1180**	**3.1900e-003**		**0.0100**	**0.0100**		**0.0100**	**0.0100**	**0.0000**	**274.5941**	**274.5941**	**0.0658**	**0.0000**	**276.2387**

Mitigated Construction Off-Site

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

3.6 Building Construction - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1596	1.4601	1.6488	2.7300e-003		0.0710	0.0710		0.0668	0.0668	0.0000	235.2818	235.2818	0.0560	0.0000	236.6811
Total	**0.1596**	**1.4601**	**1.6488**	**2.7300e-003**		**0.0710**	**0.0710**		**0.0668**	**0.0668**	**0.0000**	**235.2818**	**235.2818**	**0.0560**	**0.0000**	**236.6811**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0542	1.1076	1.8142	2.7300e-003		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	235.2815	235.2815	0.0560	0.0000	236.6808
Total	**0.0542**	**1.1076**	**1.8142**	**2.7300e-003**		**8.5900e-003**	**8.5900e-003**		**8.5900e-003**	**8.5900e-003**	**0.0000**	**235.2815**	**235.2815**	**0.0560**	**0.0000**	**236.6808**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0758	55.0758	0.0178	0.0000	55.5211
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0303**	**0.3059**	**0.4010**	**6.3000e-004**		**0.0156**	**0.0156**		**0.0144**	**0.0144**	**0.0000**	**55.0758**	**55.0758**	**0.0178**	**0.0000**	**55.5211**

Unmitigated Construction Off-Site

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

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1900e-003	0.2761	0.4756	6.3000e-004		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	55.0757	55.0757	0.0178	0.0000	55.5210
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1900e-003**	**0.2761**	**0.4756**	**6.3000e-004**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**55.0757**	**55.0757**	**0.0178**	**0.0000**	**55.5210**

Mitigated Construction Off-Site

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

3.8 Building Construction - CC - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0448	0.4100	0.4630	7.7000e-004		0.0199	0.0199		0.0188	0.0188	0.0000	66.0644	66.0644	0.0157	0.0000	66.4572
Total	**0.0448**	**0.4100**	**0.4630**	**7.7000e-004**		**0.0199**	**0.0199**		**0.0188**	**0.0188**	**0.0000**	**66.0644**	**66.0644**	**0.0157**	**0.0000**	**66.4572**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	0.0152	0.3110	0.5094	7.7000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	66.0643	66.0643	0.0157	0.0000	66.4572
Total	**0.0152**	**0.3110**	**0.5094**	**7.7000e-004**		**2.4100e-003**	**2.4100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**66.0643**	**66.0643**	**0.0157**	**0.0000**	**66.4572**

Mitigated Construction Off-Site

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

3.8 Building Construction - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1273	1.1629	1.3984	2.3300e-003		0.0531	0.0531		0.0499	0.0499	0.0000	200.5495	200.5495	0.0474	0.0000	201.7351
Total	**0.1273**	**1.1629**	**1.3984**	**2.3300e-003**		**0.0531**	**0.0531**		**0.0499**	**0.0499**	**0.0000**	**200.5495**	**200.5495**	**0.0474**	**0.0000**	**201.7351**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0462	0.9439	1.5461	2.3300e-003		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003	0.0000	200.5492	200.5492	0.0474	0.0000	201.7348
Total	**0.0462**	**0.9439**	**1.5461**	**2.3300e-003**		**7.3200e-003**	**7.3200e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**200.5492**	**200.5492**	**0.0474**	**0.0000**	**201.7348**

Mitigated Construction Off-Site

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

3.9 Architectural Coating - Condos_Appartment - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3500e-003	0.0228	0.0317	5.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**5.3100**	**0.0228**	**0.0317**	**5.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Unmitigated Construction Off-Site

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

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	0.0186	0.0321	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.4682	4.4682	2.7000e-004	0.0000	4.4749
Total	**5.3076**	**0.0186**	**0.0321**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.4682**	**4.4682**	**2.7000e-004**	**0.0000**	**4.4749**

Mitigated Construction Off-Site

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

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

3.10 Architectural Coating - CC - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**5.3084**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.3066					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**5.3072**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3431	0.5198	2.6729	8.4000e-003	0.9617	5.9800e-003	0.9677	0.2574	5.6000e-003	0.2630	0.0000	783.6336	783.6336	0.0311	0.0000	784.4119
Unmitigated	0.3431	0.5198	2.6729	8.4000e-003	0.9617	5.9800e-003	0.9677	0.2574	5.6000e-003	0.2630	0.0000	783.6336	783.6336	0.0311	0.0000	784.4119

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	768.00	761.60	678.40	1,742,104	1,742,104
Condo/Townhouse	132.00	130.90	116.60	299,424	299,424
Congregate Care (Assisted Living)	240.00	238.00	212.00	544,407	544,407
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,140.00	1,130.50	1,007.00	2,585,935	2,585,935

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
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Congregate Care (Assisted	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
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.000840	0.000857	0.007974	0.001726	0.000759
Condo/Townhouse	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.000840	0.000857	0.007974	0.001726	0.000759
Congregate Care (Assisted Living)	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.000840	0.000857	0.007974	0.001726	0.000759
Enclosed Parking with Elevator	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.000840	0.000857	0.007974	0.001726	0.000759
Parking Lot	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.000840	0.000857	0.007974	0.001726	0.000759
Parking Lot	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.000840	0.000857	0.007974	0.001726	0.000759

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	275.1018	275.1018	0.0380	7.8600e-003	278.3939
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	275.1018	275.1018	0.0380	7.8600e-003	278.3939
NaturalGas Mitigated	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	460.7666	460.7666	8.8300e-003	8.4500e-003	463.5047
NaturalGas Unmitigated	0.0466	0.3979	0.1693	2.5400e-003		0.0322	0.0322		0.0322	0.0322	0.0000	460.7666	460.7666	8.8300e-003	8.4500e-003	463.5047

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					
Apartments Low Rise	6.51184e+006	0.0351	0.3001	0.1277	1.9200e-003		0.0243	0.0243		0.0243	0.0243	0.0000	347.4966	347.4966	6.6600e-003	6.3700e-003	349.5616
Condo/Townhouse	1.24956e+006	6.7400e-003	0.0576	0.0245	3.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	66.6811	66.6811	1.2800e-003	1.2200e-003	67.0773
Congregate Care (Assisted Living)	873043	4.7100e-003	0.0402	0.0171	2.6000e-004		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	46.5889	46.5889	8.9000e-004	8.5000e-004	46.8658
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0466**	**0.3979**	**0.1693**	**2.5500e-003**		**0.0322**	**0.0322**		**0.0322**	**0.0322**	**0.0000**	**460.7666**	**460.7666**	**8.8300e-003**	**8.4400e-003**	**463.5047**

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					
Apartments Low Rise	6.51184e+006	0.0351	0.3001	0.1277	1.9200e-003		0.0243	0.0243		0.0243	0.0243	0.0000	347.4966	347.4966	6.6600e-003	6.3700e-003	349.5616
Condo/Townhouse	1.24956e+006	6.7400e-003	0.0576	0.0245	3.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	66.6811	66.6811	1.2800e-003	1.2200e-003	67.0773
Congregate Care (Assisted Living)	873043	4.7100e-003	0.0402	0.0171	2.6000e-004		3.2500e-003	3.2500e-003		3.2500e-003	3.2500e-003	0.0000	46.5889	46.5889	8.9000e-004	8.5000e-004	46.8658
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0466**	**0.3979**	**0.1693**	**2.5500e-003**		**0.0322**	**0.0322**		**0.0322**	**0.0322**	**0.0000**	**460.7666**	**460.7666**	**8.8300e-003**	**8.4400e-003**	**463.5047**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.34918e+006	128.5151	0.0178	3.6700e-003	130.0530
Condo/Townhouse	275035	26.1983	3.6200e-003	7.5000e-004	26.5118
Congregate Care (Assisted Living)	422199	40.2163	5.5500e-003	1.1500e-003	40.6976
Enclosed Parking with Elevator	809114	77.0716	0.0106	2.2000e-003	77.9939
Parking Lot	16275	3.1005	4.3000e-004	9.0000e-005	3.1376
Total		**275.1018**	**0.0380**	**7.8600e-003**	**278.3939**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.34918e+006	128.5151	0.0178	3.6700e-003	130.0530
Condo/Townhouse	275035	26.1983	3.6200e-003	7.5000e-004	26.5118
Congregate Care (Assisted Living)	422199	40.2163	5.5500e-003	1.1500e-003	40.6976
Enclosed Parking with Elevator	809114	77.0716	0.0106	2.2000e-003	77.9939
Parking Lot	16275	3.1005	4.3000e-004	9.0000e-005	3.1376
Total		**275.1018**	**0.0380**	**7.8600e-003**	**278.3939**

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	3.5706	0.0570	3.5300	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.8800e-003	3.5000e-004	24.9980
Unmitigated	3.5706	0.0570	3.5300	2.9000e-004		0.0209	0.0209		0.0209	0.0209	0.0000	24.7474	24.7474	5.8800e-003	3.5000e-004	24.9980

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	0.5307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9200e-003	0.0164	6.9700e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9756	18.9756	3.6000e-004	3.5000e-004	19.0883
Landscaping	0.1057	0.0406	3.5230	1.9000e-004		0.0196	0.0196		0.0196	0.0196	0.0000	5.7718	5.7718	5.5200e-003	0.0000	5.9097
Total	**3.5706**	**0.0570**	**3.5300**	**2.9000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**24.7474**	**24.7474**	**5.8800e-003**	**3.5000e-004**	**24.9980**

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	0.5307					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9324					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9200e-003	0.0164	6.9700e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9756	18.9756	3.6000e-004	3.5000e-004	19.0883
Landscaping	0.1057	0.0406	3.5230	1.9000e-004		0.0196	0.0196		0.0196	0.0196	0.0000	5.7718	5.7718	5.5200e-003	0.0000	5.9097
Total	**3.5706**	**0.0570**	**3.5300**	**2.9000e-004**		**0.0209**	**0.0209**		**0.0209**	**0.0209**	**0.0000**	**24.7474**	**24.7474**	**5.8800e-003**	**3.5000e-004**	**24.9980**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	33.4056	0.0408	0.0245	41.7123
Unmitigated	33.4056	0.0408	0.0245	41.7123

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
Condo/Townhouse	3.58347 / 2.25915	3.8680	4.7200e-003	2.8300e-003	4.8299
Congregate Care (Assisted Living)	6.5154 / 4.10754	7.0328	8.5900e-003	5.1500e-003	8.7815
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**33.4056**	**0.0408**	**0.0245**	**41.7123**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	20.8493 / 13.1441	22.5048	0.0275	0.0165	28.1009
Condo/Townhouse	3.58347 / 2.25915	3.8680	4.7200e-003	2.8300e-003	4.8299
Congregate Care (Assisted Living)	6.5154 / 4.10754	7.0328	8.5900e-003	5.1500e-003	8.7815
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**33.4056**	**0.0408**	**0.0245**	**41.7123**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	53.5389	3.1641	0.0000	132.6403
Unmitigated	53.5389	3.1641	0.0000	132.6403

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	147.2	29.8803	1.7659	0.0000	74.0271
Condo/Townhouse	25.3	5.1357	0.3035	0.0000	12.7234
Congregate Care (Assisted Living)	91.25	18.5229	1.0947	0.0000	45.8898
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**53.5389**	**3.1641**	**0.0000**	**132.6403**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	147.2	29.8803	1.7659	0.0000	74.0271
Condo/Townhouse	25.3	5.1357	0.3035	0.0000	12.7234
Congregate Care (Assisted Living)	91.25	18.5229	1.0947	0.0000	45.8898
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**53.5389**	**3.1641**	**0.0000**	**132.6403**

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	670.5	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 (600 - 750 HP)	0.0275	0.0768	0.0701	1.3000e-004		4.0400e-003	4.0400e-003		4.0400e-003	4.0400e-003	0.0000	12.7567	12.7567	1.7900e-003	0.0000	12.8014
Total	**0.0275**	**0.0768**	**0.0701**	**1.3000e-004**		**4.0400e-003**	**4.0400e-003**		**4.0400e-003**	**4.0400e-003**	**0.0000**	**12.7567**	**12.7567**	**1.7900e-003**	**0.0000**	**12.8014**

11.0 Vegetation

Attachment 3: EMFAC2017 Calculations

CalEEMod EMFAC2017 Emission Factors Input - 2021

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.005142	0.003165	0.003683	0.024744743	0.009212	0	0	0.013909	0
A	CH4_RUNEX	0.002679	0.006036	0.003931	0.00586	0.010574	0.008186	0.011652	0.052777621	0.017286	0.772814	0.343487	0.003193	0.012949
A	CH4_STREX	0.059619	0.085963	0.078487	0.099431	0.01665	0.009097	0.010577	4.11238E-07	0.027914	0.002642	0.26285	0.001205	0.024054
A	CO_IDLEX	0	0	0	0	0.178792	0.134451	0.402576	5.595853114	0.492997	0	0	1.124703	0
A	CO_RUNEX	0.664303	1.225403	0.882074	1.164685	0.964879	0.753024	0.850451	0.683681744	1.691986	5.170137	21.25242	0.250585	1.352535
A	CO_STREX	2.374518	2.611221	3.016734	3.650234	1.092462	0.620471	1.325629	0.005391309	3.14169	0.220711	8.989194	0.177576	2.233625
A	CO2_NBIO_IDLEX	0	0	0	0	9.315177	14.66729	87.41514	1080.923248	68.59892	0	0	311.5353	0
A	CO2_NBIO_RUNEX	264.0944	314.3507	342.0122	420.865	811.8023	789.4191	1186.454	1544.993074	1604.682	1666.395	213.9517	1041.515	1584.615
A	CO2_NBIO_STREX	55.859	67.43766	73.51813	90.11553	11.43243	7.531493	9.939311	0.045861149	22.96871	3.082079	62.77916	0.982962	19.11981
A	NOX_IDLEX	0	0	0	0	0.075725	0.118408	0.786591	5.921586735	0.400436	0	0	2.566151	0
A	NOX_RUNEX	0.044956	0.111722	0.084098	0.126391	1.276888	1.365467	3.03011	4.089974706	1.929784	1.939034	1.175083	3.452862	1.697278
A	NOX_STREX	0.213885	0.301284	0.329872	0.42802	0.337386	0.192348	1.096938	1.869772248	0.559516	0.041523	0.272337	1.361848	0.242277
A	PM10_IDLEX	0	0	0	0	0.000902	0.001448	0.002381	0.008672034	0.00164	0	0	0.002092	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.06077905	0.13034	0.077891	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009845	0.010812	0.012	0.035432347	0.012	0.028611	0.004	0.011652	0.013139
A	PM10_RUNEX	0.001543	0.002066	0.001478	0.001684	0.014959	0.019331	0.080884	0.061444811	0.038138	0.005975	0.001935	0.020391	0.035293
A	PM10_STREX	0.001964	0.002687	0.001849	0.00209	0.000258	0.000127	0.000135	9.48064E-07	0.000199	1.08E-05	0.003328	1.3E-05	0.000265
A	PM25_IDLEX	0	0	0	0	0.000863	0.001385	0.002278	0.008296886	0.001569	0	0	0.002001	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026048164	0.05586	0.033382	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002461	0.002703	0.003	0.008858087	0.003	0.007153	0.001	0.002913	0.003285
A	PM25_RUNEX	0.001422	0.001901	0.00136	0.001554	0.014264	0.018471	0.077377	0.058786713	0.036466	0.005715	0.001813	0.019505	0.033721
A	PM25_STREX	0.001806	0.002471	0.001701	0.001924	0.000238	0.000117	0.000124	8.7171E-07	0.000183	9.91E-06	0.003143	1.19E-05	0.000244
A	ROG_DIURN	0.047835	0.110136	0.063525	0.077813	0.002003	0.00097	0.000496	3.0339E-06	0.001655	0.000417	1.797208	6.77E-05	0.723858
A	ROG_HTSK	0.115025	0.222845	0.136346	0.165449	0.081023	0.040323	0.023793	0.000143165	0.02747	0.004917	0.785671	0.000673	0.064504
A	ROG_IDLEX	0	0	0	0	0.021785	0.016186	0.023139	0.432634651	0.054636	0	0	0.078106	0
A	ROG_RESTL	0.045731	0.095394	0.065694	0.082518	0.001111	0.000547	0.00027	1.8535E-06	0.000794	0.000287	1.148517	3.23E-05	0.275332
A	ROG_RUNEX	0.010685	0.026531	0.015945	0.026808	0.115725	0.12752	0.205815	0.139015262	0.156156	0.012087	2.362954	0.054706	0.083794
A	ROG_RUNLS	0.236991	0.800501	0.459105	0.519991	0.576223	0.275017	0.138411	0.000789077	0.289885	0.020602	2.312918	0.00428	1.419586
A	ROG_STREX	0.277072	0.438816	0.369448	0.503449	0.084332	0.04563	0.058518	2.15237E-06	0.148086	0.009839	2.015223	0.006723	0.102761
A	SO2_IDLEX	0	0	0	0	9.02E-05	0.00014	0.000829	0.010063892	0.000655	0	0	0.002949	0
A	SO2_RUNEX	8.61E-05	0.002807	0.011318	0.004151	0.007918	0.007616	0.011318	0.014178887	0.015656	0.013816	0.002117	0.009873	0.01555
A	SO2_STREX	0	0	9.84E-05	0.00089	0.000113	7.45E-05	9.84E-05	4.53833E-07	0.000227	3.05E-05	0.000621	9.73E-06	0.000189
A	TOG_DIURN	0.047835	0.110136	0.063525	0.077813	0.002003	0.00097	0.000496	3.0339E-06	0.001655	0.000417	1.797208	6.77E-05	0.723858
A	TOG_HTSK	0.115025	0.222845	0.136346	0.165449	0.081023	0.040323	0.023793	0.000143165	0.02747	0.004917	0.785671	0.000673	0.064504
A	TOG_IDLEX	0	0	0	0	0.030654	0.021787	0.030321	0.4971978	0.07215	0	0	0.10651	0
A	TOG_RESTL	0.045731	0.095394	0.065694	0.082518	0.001111	0.000547	0.00027	1.8535E-06	0.000794	0.000287	1.148517	3.23E-05	0.275332
A	TOG_RUNEX	0.015534	0.03867	0.023228	0.037668	0.142181	0.149407	0.238623	0.204892573	0.197792	0.789875	2.889916	0.063572	0.11115
A	TOG_RUNLS	0.236991	0.800501	0.459105	0.519991	0.576223	0.275017	0.138411	0.000789077	0.289885	0.020602	2.312918	0.00428	1.419586
A	TOG_STREX	0.303357	0.480445	0.404498	0.551155	0.092333	0.049959	0.06407	2.35658E-06	0.162136	0.010772	2.19213	0.007361	0.11251

CalEEMod EMFAC2017 Fleet Mix Input - 2021

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.555356	0.05555	0.186129	0.127765	0.024456	0.005451	0.010959	0.021863	0.000871	0.00094	0.008782	0.000974	0.000904

CalEEMod Construction Inputs

Phase	CalEEMod WORKER TRIPS	CalEEMod VENDOR TRIPS	Total Worker Trips	Total Vendor Trips	CalEEMod HAULING TRIPS	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	*Worker VMT*	*Vendor VMT*	*Hauling VMT*
Demolition	15	0	750	0	27	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	8100	0	540
Site Preparation	18	0	540	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	5832	0	0
Grading	20	0	1500	0	9375	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	16200	0	187500
Trenching	20	0	1500	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	16200	0	0
Building Construction - Condos_Appartment	439	89	193160	39160	2735	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	2086128	285868	19965.5
Paving	15	0	825	0	695	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	8910	0	5073.5
Building Construction - CC	439	89	100970	20470	384	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1090476	149431	2803.2
Architectural Coating - Condos_Appartment	88	0	3080	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	33264	0	0
Architectural Coating - CC	88	0	1760	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	19008	0	0

Number of Days Per Year					
2021	7/1/21	12/31/21	183	132	
2022	1/1/22	12/31/22	365	262	
2023	1/1/23	12/31/2023	365	262	
2024	1/1/24	9/25/2024	268	191	
			1181	**844**	***Total Workdays***

Summary of Construction Traffic Emissions (EMFAC2017)

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
						Grams					
Hauling	35741.03	985923.34	221620.765	3193.980	64548.78	34149.79	98698.6	9712.54	20336.31	30048.85	347822591.5
Vendor	92313.99	1973295.67	578735.5	6174.486	130154.40	78551.82	208706.2	19584.10	47345.29	66929.39	665298179.3
Worker	308907.76	268070.23	3249770.6	9526.780	981951.28	152705.41	1134656.7	147752.47	63580.71	211333.18	957062904.7
Total (g)	436962.79	3227289.236	4050126.92	18895.24555	1176654.461	265407.0214	1442061.48	177049.111	131262.303	308311.414	1970183675
Total (lbs)	963.34	7114.95	8929.00	41.66	2594.08	585.1	3179.20	390.33	289.38	679.71	4343511.5
Total (tons)	0.4817	3.557	4.465	0.021	1.297	0.2926	1.5896	0.1952	0.145	0.340	2171.76
Total (MT)											1970.18

YEAR											
						Tons					
2021	0.0746	0.5512	0.6918	0.0032	0.2010	0.0453	0.2463	0.0302	0.0224	0.0527	305.2867
2022	0.1489	1.0995	1.3798	0.0064	0.4009	0.0904	0.4913	0.0603	0.0447	0.1050	608.9052
2023	0.1489	1.0995	1.3798	0.0064	0.4009	0.0904	0.4913	0.0603	0.0447	0.1050	608.9052
2024	0.1093	0.8073	1.0131	0.0047	0.2943	0.0664	0.3607	0.0443	0.0328	0.0771	447.0866

Summary of Construction Traffic Emissions (EMFAC2017) - 1 mile

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
						Grams					
Hauling	7567.34	157023.71	83061.5842	320.399	3951.58	2198.21	6149.8	594.59	1347.91	1942.50	34704716.21
Vendor	31711.56	569759.10	300979.4	1206.749	17829.37	11101.05	28930.4	2682.75	6811.36	9494.11	129864217.2
Worker	270113.69	92992.90	1002037.4	888.447	90921.42	14687.78	105609.2	13680.78	6391.36	20072.14	105390617.3
Total (g)	309392.59	819775.7113	1386078.33	2415.594281	112702.369	27987.03101	140689.4	16958.12569	14550.62452	31508.75021	269959550.7
Total (lbs)	682.09	1807.30	3055.78	5.33	248.47	61.7	310.17	37.39	32.08	69.46	595158.9324
Total (tons)	0.3410	0.904	1.528	0.003	0.124	0.0309	0.1551	0.0187	0.016	0.035	297.58
Total (MT)											269.96

YEAR											
						Tons					
	2021	0.0529	0.1401	0.2370	0.0004	0.0193	0.0048	0.0241	0.0029	0.0025	0.0054	41.8666
	2022	0.1055	0.2795	0.4726	0.0008	0.0384	0.0095	0.0480	0.0058	0.0050	0.0107	83.5044
	2023	0.1052	0.2788	0.4713	0.0008	0.0383	0.0095	0.0478	0.0058	0.0049	0.0107	83.2757
	2024	0.0775	0.2052	0.3470	0.0006	0.0282	0.0070	0.0352	0.0042	0.0036	0.0079	61.3128

CalEEMod EMFAC2017 Emission Factors Input - 2025

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.004645	0.002809	0.004	0.024216356	0.008801	0	0	0.016544	0
A	CH4_RUNEX	0.001573	0.003301	0.002582	0.003398	0.007833	0.006569	0.001862	0.045967443	0.007949	1.096542	0.334586	0.002423	0.00852
A	CH4_STREX	0.043157	0.059143	0.059795	0.071554	0.012868	0.006761	0.009927	3.69885E-07	0.024825	0.001402	0.257211	0.001343	0.021518
A	CO_IDLEX	0	0	0	0	0.175375	0.131725	0.439026	6.259647298	0.5155	0	0	1.295323	0
A	CO_RUNEX	0.494312	0.78765	0.665781	0.764439	0.72322	0.609756	0.244828	0.40476059	0.86321	8.134515	19.68463	0.206088	0.750933
A	CO_STREX	2.07621	2.25669	2.66167	2.962558	0.96907	0.527225	1.132745	0.005233756	2.781005	0.224496	9.099977	0.193428	1.881803
A	CO2_NBIO_IDLEX	0	0	0	0	9.018386	14.15722	82.81571	1019.513561	67.37732	0	0	294.1274	0
A	CO2_NBIO_RUNEX	238.6099	287.47	304.9087	377.1027	764.2369	742.1259	1095.893	1381.702646	1458.487	1559.188	213.2662	970.4393	1486.323
A	CO2_NBIO_STREX	50.6747	61.72577	65.78292	80.50864	10.66522	6.884919	9.874019	0.040806139	21.16642	2.713419	61.40705	1.105826	17.29354
A	NOX_IDLEX	0	0	0	0	0.067446	0.101014	0.496837	5.293706225	0.247028	0	0	2.135046	0
A	NOX_RUNEX	0.027329	0.061857	0.051093	0.071117	0.846105	0.874872	1.469755	2.645886543	1.102683	0.640229	1.161281	2.577585	1.467442
A	NOX_STREX	0.163817	0.219934	0.23831	0.295805	0.28783	0.158819	1.663167	2.359789849	0.701713	0.0231	0.272416	1.605964	0.239056
A	PM10_IDLEX	0	0	0	0	0.000935	0.001485	0.000415	0.002512424	8.31E-05	0	0	0.001379	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060860889	0.13034	0.077891	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009916	0.01085	0.012	0.035478321	0.012	0.028611	0.004	0.011597	0.013201
A	PM10_RUNEX	0.001279	0.001562	0.001317	0.001407	0.011949	0.016795	0.007233	0.024798032	0.006096	0.004883	0.002062	0.015555	0.02979
A	PM10_STREX	0.001665	0.002075	0.001663	0.001729	0.000224	0.000108	0.000125	5.88388E-07	0.000212	4.63E-05	0.002991	1.68E-05	0.000222
A	PM25_IDLEX	0	0	0	0	0.000895	0.00142	0.000397	0.002403738	7.95E-05	0	0	0.001319	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026083238	0.05586	0.033382	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002479	0.002712	0.003	0.00886958	0.003	0.007153	0.001	0.002899	0.0033
A	PM25_RUNEX	0.001178	0.001437	0.001212	0.001298	0.011387	0.016046	0.006912	0.023725255	0.005808	0.004664	0.001927	0.014876	0.028463
A	PM25_STREX	0.001531	0.001908	0.001529	0.00159	0.000206	9.94E-05	0.000115	5.41001E-07	0.000195	4.26E-05	0.002813	1.54E-05	0.000204
A	ROG_DIURN	0.035545	0.078495	0.057199	0.070452	0.001703	0.000759	0.000375	1.61824E-06	0.00168	0.000124	1.778768	8.87E-05	0.536522
A	ROG_HTSK	0.089235	0.162392	0.116932	0.142738	0.069845	0.031695	0.019219	7.53154E-05	0.027575	0.000997	0.734919	0.000841	0.049121
A	ROG_IDLEX	0	0	0	0	0.019689	0.014758	0.020349	0.422809885	0.047804	0	0	0.088978	0
A	ROG_RESTL	0.035284	0.072096	0.061522	0.077515	0.000986	0.00046	0.000221	1.01311E-06	0.000817	6.63E-05	1.111921	4.26E-05	0.21826
A	ROG_RUNEX	0.005769	0.013836	0.010021	0.013917	0.096664	0.112921	0.016746	0.025164402	0.042652	0.016213	2.265859	0.04097	0.061378
A	ROG_RUNLS	0.202784	0.59695	0.418818	0.46973	0.506686	0.196922	0.10577	0.000405471	0.298615	0.002975	1.987785	0.005535	1.026888
A	ROG_STREX	0.189178	0.284309	0.270571	0.345449	0.064505	0.033137	0.051421	1.93355E-06	0.130222	0.004778	1.965132	0.007467	0.086981
A	SO2_IDLEX	0	0	0	0	8.73E-05	0.000135	0.000785	0.009489077	0.000643	0	0	0.002785	0
A	SO2_RUNEX	9.22E-05	0.002831	0.010469	0.003616	0.00745	0.007157	0.010469	0.012649372	0.0142	0.011592	0.00211	0.009204	0.014576
A	SO2_STREX	0	0	9.77E-05	0.000773	0.000106	6.81E-05	9.77E-05	4.0381E-07	0.000209	2.69E-05	0.000608	1.09E-05	0.000171
A	TOG_DIURN	0.035545	0.078495	0.057199	0.070452	0.001703	0.000759	0.000375	1.61824E-06	0.00168	0.000124	1.778768	8.87E-05	0.536522
A	TOG_HTSK	0.089235	0.162392	0.116932	0.142738	0.069845	0.031695	0.019219	7.53154E-05	0.027575	0.000997	0.734919	0.000841	0.049121
A	TOG_IDLEX	0	0	0	0	0.027535	0.019656	0.027571	0.485939525	0.064086	0	0	0.122512	0
A	TOG_RESTL	0.035284	0.072096	0.061522	0.077515	0.000986	0.00046	0.000221	1.01311E-06	0.000817	6.63E-05	1.111921	4.26E-05	0.21826
A	TOG_RUNEX	0.008383	0.020179	0.014587	0.020223	0.116461	0.130841	0.021144	0.073727305	0.060345	1.11969	2.806627	0.047652	0.07882
A	TOG_RUNLS	0.202784	0.59695	0.418818	0.46973	0.506686	0.196922	0.10577	0.000405471	0.298615	0.002975	1.987785	0.005535	1.026888
A	TOG_STREX	0.207126	0.311283	0.296242	0.378223	0.070625	0.036281	0.0563	2.11699E-06	0.142577	0.005232	2.138655	0.008175	0.095234

CalEEMod EMFAC2017 Fleet Mix Input - 2025

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.571268	0.055534	0.179902	0.119022	0.022737	0.005494	0.010823	0.022968	0.000844	0.000899	0.008387	0.001297	0.000823

CalEEMod EMFAC2017 Emission Factors Input - 2030

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.00411	0.002474	0.004261	0.023567192	0.008663	0	0	0.017858	0
A	CH4_RUNEX	0.000977	0.001734	0.001665	0.00205	0.005766	0.005524	0.001229	0.041355402	0.004274	1.597558	0.328428	0.001732	0.005443
A	CH4_STREX	0.030498	0.038964	0.043487	0.049011	0.009444	0.004804	0.009381	3.61596E-07	0.022043	0.001458	0.251516	0.001405	0.0194
A	CO_IDLEX	0	0	0	0	0.173074	0.129531	0.460381	6.198422521	0.553562	0	0	1.414872	0
A	CO_RUNEX	0.406317	0.538086	0.534498	0.577687	0.533422	0.519912	0.167253	0.396648471	0.452378	12.0386	18.60834	0.167641	0.355936
A	CO_STREX	1.755325	1.901701	2.324204	2.438521	0.878383	0.463313	0.967753	0.005666336	2.369322	0.213754	9.224397	0.198584	1.606305
A	CO2_NBIO_IDLEX	0	0	0	0	8.484048	13.3213	77.33052	917.0270698	71.39618	0	0	273.6876	0
A	CO2_NBIO_RUNEX	216.7059	262.9908	270.6447	333.7193	703.3492	684.0449	1028.73	1224.725845	1312.444	1536.63	212.7875	897.4172	1366.602
A	CO2_NBIO_STREX	45.7509	56.10104	58.15744	70.50447	9.821256	6.219006	9.383055	0.043315961	18.77003	2.678095	60.03075	1.138882	15.37004
A	NOX_IDLEX	0	0	0	0	0.055654	0.082415	0.424241	5.125701428	0.289703	0	0	1.743065	0
A	NOX_RUNEX	0.019574	0.034311	0.032187	0.041554	0.46441	0.499266	1.428081	2.502058226	1.0472	0.614694	1.151612	1.838723	1.243993
A	NOX_STREX	0.130865	0.162713	0.173532	0.200302	0.231492	0.126367	1.656326	2.369387396	0.765388	0.02241	0.271721	1.820576	0.237646
A	PM10_IDLEX	0	0	0	0	0.000959	0.00152	0.000209	0.002103856	9.75E-05	0	0	0.000811	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060936763	0.13034	0.077891	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.00996	0.010875	0.012	0.03552068	0.012	0.028611	0.004	0.011575	0.013248
A	PM10_RUNEX	0.000943	0.001091	0.001036	0.001069	0.008842	0.014999	0.007078	0.02354078	0.006308	0.004673	0.002169	0.011403	0.023086
A	PM10_STREX	0.001299	0.001512	0.001348	0.001374	0.000207	9.88E-05	0.000122	4.87093E-07	0.000213	4.64E-05	0.002857	1.89E-05	0.000196
A	PM25_IDLEX	0	0	0	0	0.000918	0.001454	0.0002	0.002012844	9.33E-05	0	0	0.000776	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.026115755	0.05586	0.033382	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.00249	0.002719	0.003	0.00888017	0.003	0.007153	0.001	0.002894	0.003312
A	PM25_RUNEX	0.000868	0.001004	0.000954	0.000985	0.008416	0.014328	0.006763	0.022522387	0.006011	0.004463	0.002024	0.010903	0.022052
A	PM25_STREX	0.001195	0.001391	0.001239	0.001263	0.00019	9.08E-05	0.000112	4.47864E-07	0.000196	4.27E-05	0.002675	1.74E-05	0.00018
A	ROG_DIURN	0.026876	0.052537	0.048528	0.06283	0.001429	0.00058	0.0003	1.04996E-06	0.001543	0.000326	1.746553	0.000127	0.361558
A	ROG_HTSK	0.068681	0.110524	0.09361	0.115916	0.060352	0.02342	0.015426	4.71457E-05	0.025732	0.003692	0.679578	0.001199	0.032054
A	ROG_IDLEX	0	0	0	0	0.017442	0.013426	0.020707	0.416702119	0.049435	0	0	0.094655	0
A	ROG_RESTL	0.027193	0.051088	0.053327	0.069843	0.000862	0.00038	0.000194	6.97584E-07	0.000769	0.000217	1.063079	6.3E-05	0.160387
A	ROG_RUNEX	0.003292	0.006724	0.006133	0.008013	0.080568	0.102495	0.012783	0.023724791	0.024362	0.023319	2.200621	0.028408	0.044637
A	ROG_RUNLS	0.178464	0.420761	0.352887	0.39427	0.493134	0.136949	0.079468	0.000241394	0.288808	0.014752	1.581788	0.008183	0.564766
A	ROG_STREX	0.127358	0.174006	0.188596	0.224402	0.046024	0.022557	0.045851	1.88725E-06	0.113718	0.004916	1.913254	0.007786	0.074232
A	SO2_IDLEX	0	0	0	0	8.21E-05	0.000127	0.000734	0.008538599	0.000681	0	0	0.002593	0
A	SO2_RUNEX	9.11E-05	0.002762	0.009837	0.003082	0.006854	0.006594	0.009837	0.011218863	0.012757	0.009839	0.002106	0.008514	0.013394
A	SO2_STREX	0	0	9.29E-05	0.000652	9.72E-05	6.15E-05	9.29E-05	4.28647E-07	0.000186	2.65E-05	0.000594	1.13E-05	0.000152
A	TOG_DIURN	0.026876	0.052537	0.048528	0.06283	0.001429	0.00058	0.0003	1.04996E-06	0.001543	0.000326	1.746553	0.000127	0.361558
A	TOG_HTSK	0.068681	0.110524	0.09361	0.115916	0.060352	0.02342	0.015426	4.71457E-05	0.025732	0.003692	0.679578	0.001199	0.032054
A	TOG_IDLEX	0	0	0	0	0.024215	0.017676	0.028219	0.47861813	0.065505	0	0	0.130824	0
A	TOG_RESTL	0.027193	0.051088	0.053327	0.069843	0.000862	0.00038	0.000194	6.97584E-07	0.000769	0.000217	1.063079	6.3E-05	0.160387
A	TOG_RUNEX	0.004781	0.00981	0.00891	0.011627	0.095215	0.117813	0.015606	0.067507894	0.033526	1.630955	2.748986	0.033121	0.05516
A	TOG_RUNLS	0.178464	0.420761	0.352887	0.39427	0.493134	0.136949	0.079468	0.000241394	0.288808	0.014752	1.581788	0.008183	0.564766
A	TOG_STREX	0.139441	0.190514	0.206489	0.245692	0.050391	0.024698	0.050201	2.0663E-06	0.124507	0.005383	2.083174	0.008524	0.081274

CalEEMod EMFAC2017 Fleet Mix Input 2030

FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.581584	0.055711	0.175538	0.113247	0.021576	0.005527	0.010721	0.023941	0.00084	0.000857	0.007974	0.001726	0.000759

Attachment 4: Construction Health Risk Calculations

Spieker CCC Project, Walnut Creek, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2021-2022	Construction	0.1775	Point	626	355.0	0.10806	1.36E-02	2.175E-05
2022-2023	Construction	0.1586	Point	626	317.3	0.09659	1.22E-02	1.94E-05
2023-2024	Construction	0.1017	Point	626	203.4	0.06193	7.80E-03	1.25E-05
2024-2025	Construction	0.0607	Point	626	121.4	0.03696	4.66E-03	7.44E-06

Emissions assumed to be evenly distributed over the construction area

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

DPM Emissions and Modeling Emission Rates - With Mitigation Measure AQ-2

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2021-2022	Construction	0.0125	Point	626	25.1	0.00763	9.62E-04	1.54E-06
2022-2023	Construction	0.0229	Point	626	45.9	0.01397	1.76E-03	2.81E-06
2023-2024	Construction	0.0206	Point	626	41.2	0.01255	1.58E-03	2.53E-06
2024-2025	Construction	0.0144	Point	626	28.7	0.00875	1.10E-03	1.76E-06

Emissions assumed to be evenly distributed over the construction area

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

Spieker CCC Project, Walnut Creek, CA

PM2.5 Fugitive Dust Emissions for Modeling - Without 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)	Emission Rate $g/s/m^2$
2021-2022	Construction	Fug25	0.2408	481.6	0.14661	1.85E-02	123408.7	1.50E-07
2022-2023	Construction	Fug25	0.0463	92.6	0.02818	3.55E-03	123408.7	2.88E-08
2023-2024	Construction	Fug25	0.0058	11.5	0.00351	4.42E-04	123408.7	3.58E-09
2024-2025	Construction	Fug25	0.0042	8.5	0.00258	3.26E-04	123408.7	2.64E-09

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

PM2.5 Fugitive Dust Emissions for Modeling - With Mitigation Measure AQ-1

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)	Emission Rate $g/s/m^2$
2021-2022	Construction	PM25	0.1100	220.0	0.06697	8.44E-03	123408.7	6.84E-08
2022-2023	Construction	PM25	0.0240	48.0	0.01460	1.84E-03	123408.7	1.49E-08
2023-2024	Construction	PM25	0.0058	11.5	0.00351	4.42E-04	123408.7	3.58E-09
2024-2025	Construction	PM25	0.0042	8.5	0.00258	3.26E-04	123408.7	2.64E-09

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

Spieker CCRC Development, Walnut Creek, CA

Standby Emergency Generator Emissions Rates and Modeling Parameters

DPM Emission Rates		
	DPM Emissions per Generator	
	Avg Daily	Annual
Source Type	(lb/day)	(lb/year)
500-kW 670- hp Generator	0.022	8.08
CalEEMod DPM Emissions	4.04E-03	tons/year

Modeling Information		
Model	AERMOD	
Source	Diesel Generator Engine	
Source Type	Point	
Meteorological Data	2012-2015,2017 Concord Meterological Data	
Point Source Stack Parameters		
Generator Engine Size (hp)	670	
Stack Height (ft)	12.00	near ground level release assumed
Stack Diameter (ft)**	0.60	
Exhaust Gas Flowrate (CFM)*	2527.73	
Stack Exit Velocity (ft/sec)**	149.00	
Exhaust Temperature (˚F)**	872.00	
Emissions Rate (lb/hr)	0.000922	

* AERMOD default

**BAAQMD default generator parameters

Spieker CCC Project, Walnut Creek, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site SF-Home - 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 --> / **Parameter**	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

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

Cancer Risk by Year -Construction MEI Receptor Location

			MEI: 3rd Trimester to Adulthood				MEI: Adult Only								
	Exposure				Age	Cancer	Modeled		Age	Cancer		MEI Conc (ug/m3)		Max Conc (ug/m3)	Max Conc (ug/m3)
Exposure Year	Duration (years)	Age	DPM Conc (ug/m3) Year	Annual	Sensitivity Factor	Risk (per million)	DPM Conc (ug/m3) Year	Annual	Sensitivity Factor	Risk (per million)	HI	Fugitive PM2.5	Total PM2.5	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2021-2022	0.0415	10	0.56									
1	1	0 - 1	2021-2022	0.0415	10	6.82	2021-2022	0.0415	1	0.12	0.008	0.1090	0.150	0.149	0.184
2	1	1 - 2	2022-2023	0.0371	10	6.09	2022-2023	0.0371	1	0.11	0.007	0.0210	0.058	0.029	0.061
3	1	2 - 3	2023-2024	0.0238	3	0.62	2023-2024	0.0238	1	0.07	0.005	0.0026	0.026	0.004	0.03
4	1	3 - 4	2024-2025	0.0034	3	0.09	2024-2025	0.0034	1	0.01	0.001	0.0019	0.005	0.003	0.01
5	1	4 - 5	2025				2025								
6	1	5 - 6	2026				2026								
7	1	6 - 7	2027				2027								
8	1	7 - 8	2028				2028								
9	1	8 - 9	2029				2029								
10	1	9 - 10	2030				2030								
11	1	10 - 11	2031				2031								
12	1	11 - 12	2032				2032								
13	1	12 - 13	2033				2033								
14	1	13 - 14	2034				2034								
15	1	14 - 15	2035				2035								
16	1	15 - 16	2036				2036								
17	1	16-17	2037				2037								
18	1	17-18	2038				2038								
19	1	18-19	2039				2039								
20	1	19-20	2040				2040								
21	1	20-21	2041				2041								
22	1	21-22	2042				2042								
23	1	22-23	2043				2043								
24	1	23-24	2044				2044								
25	1	24-25	2045				2045								
26	1	25-26	2046				2046								
27	1	26-27	2047				2047								
28	1	27-28	2048				2048								
29	1	28-29	2049				2049								
30	1	29-30	2050				2050								
Total Increased Cancer Risk						**14.18**				**0.18**					

* Third trimester of pregnancy

Spieker CCC Project, Walnut Creek, CA - Emergency Generator Operations
Maximum DPM Cancer Risk and PM2.5 Calculations
Impacts at Generator MEI: SF-Home - 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 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

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

Cancer Risk by Year -Generator MEI Receptor Location

			MEI: 3rd Trimester to Adulthood				MEI: Adult Only					
							Modeled					
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**Annual**	**Age Sensitivity Factor**	**Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**Annual**	**Age Sensitivity Factor**	**Cancer Risk (per million)**		**Maximum Conc (ug/m3)**
											HI	**Total PM2.5**
0	0.25	-0.25 - 0*	2025	0.0014	10	0.019						
1	1	0 - 1	2025	0.0014	10	0.23	2025	0.0014	1	0.004	0.00028	0.0014
2	1	1 - 2	2026	0.0014	10	0.23	2026	0.0014	1	0.004	0.00028	0.0014
3	1	2 - 3	2027	0.0014	3	0.04	2027	0.0014	1	0.004	0.00028	0.0014
4	1	3 - 4	2028	0.0014	3	0.04	2028	0.0014	1	0.004	0.00028	0.0014
5	1	4 - 5	2029	0.0014	3	0.036	2029	0.0014	1	0.004	0.00028	0.0014
6	1	5 - 6	2030	0.0014	3	0.036	2030	0.0014	1	0.004	0.00028	0.0014
7	1	6 - 7	2031	0.0014	3	0.036	2031	0.0014	1	0.004	0.00028	0.0014
8	1	7 - 8	2032	0.0014	3	0.036	2032	0.0014	1	0.004	0.00028	0.0014
9	1	8 - 9	2033	0.0014	3	0.036	2033	0.0014	1	0.004	0.00028	0.0014
10	1	9 - 10	2034	0.0014	3	0.036	2034	0.0014	1	0.004	0.00028	0.0014
11	1	10 - 11	2035	0.0014	3	0.036	2035	0.0014	1	0.004	0.00028	0.0014
12	1	11 - 12	2036	0.0014	3	0.036	2036	0.0014	1	0.004	0.00028	0.0014
13	1	12 - 13	2037	0.0014	3	0.036	2037	0.0014	1	0.004	0.00028	0.0014
14	1	13 - 14	2038	0.0014	3	0.036	2038	0.0014	1	0.004	0.00028	0.0014
15	1	14 - 15	2039	0.0014	3	0.036	2039	0.0014	1	0.004	0.00028	0.0014
16	1	15 - 16	2040	0.0014	3	0.036	2040	0.0014	1	0.004	0.00028	0.0014
17	1	16-17	2041	0.0014	1	0.004	2041	0.0014	1	0.004	0.00028	0.0014
18	1	17-18	2042	0.0014	1	0.004	2042	0.0014	1	0.004	0.00028	0.0014
19	1	18-19	2043	0.0014	1	0.004	2043	0.0014	1	0.004	0.00028	0.0014
20	1	19-20	2044	0.0014	1	0.004	2044	0.0014	1	0.004	0.00028	0.0014
21	1	20-21	2045	0.0014	1	0.004	2045	0.0014	1	0.004	0.00028	0.0014
22	1	21-22	2046	0.0014	1	0.004	2046	0.0014	1	0.004	0.00028	0.0014
23	1	22-23	2047	0.0014	1	0.004	2047	0.0014	1	0.004	0.00028	0.0014
24	1	23-24	2048	0.0014	1	0.004	2048	0.0014	1	0.004	0.00028	0.0014
25	1	24-25	2049	0.0014	1	0.004	2049	0.0014	1	0.004	0.00028	0.0014
26	1	25-26	2050	0.0014	1	0.004	2050	0.0014	1	0.004	0.00028	0.0014
27	1	26-27	2051	0.0014	1	0.004	2051	0.0014	1	0.004	0.00028	0.0014
28	1	27-28	2052	0.0014	1	0.004	2052	0.0014	1	0.004	0.00028	0.0014
29	1	28-29	2053	0.0014	1	0.004	2053	0.0014	1	0.004	0.00028	0.0014
30	1	29-30	2054	0.0014	1	0.004	2054	0.0014	1	0.004	0.00028	0.0014
Total Increased Cancer Risk						**1.03**				**0.12**		

* Third trimester of pregnancy

Spieker CCC Project, Walnut Creek, CA - Total Project (Const + Ops), Without AQ-1 and AQ-2
Maximum Project Cancer Risk Calculations
Impacts at Project MEI: SF-Home - 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 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

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

Cancer Risk by Year -Project MEI Receptor Location

			MEI: 3rd Trimester to Adulthood				MEI: Adult Only							
							Modeled						Maximum Conc (ug/m3)	
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Cancer Risk (per million)**		**HI**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2021	0.0415	10	0.564								
1	1	0 - 1	2021	0.0415	10	6.82	2021	0.0415	1	0.119		0.0083	0.109	0.1505
2	1	1 - 2	2022	0.0371	10	6.09	2022	0.0371	1	0.107	2022	0.00742	0.021	0.0581
3	1	2 - 3	2023	0.0238	3	0.62	2023	0.0238	1	0.068	2023	0.00476	0.003	0.0264
4	1	3 - 4	2024	0.0034	3	0.09	2024	0.0034	1	0.010		0.00067	0.002	0.0053
5	1	4 - 5	2025	0.0012	3	0.030	2025	0.0012	1	0.003		0.00023		0.0012
6	1	5 - 6	2026	0.0012	3	0.030	2026	0.0012	1	0.003		0.00023		0.0012
7	1	6 - 7	2027	0.0012	3	0.030	2027	0.0012	1	0.003		0.00023		0.0012
8	1	7 - 8	2028	0.0012	3	0.030	2028	0.0012	1	0.003		0.00023		0.0012
9	1	8 - 9	2029	0.0012	3	0.030	2029	0.0012	1	0.003		0.00023		0.0012
10	1	9 - 10	2030	0.0012	3	0.030	2030	0.0012	1	0.003		0.00023		0.0012
11	1	10 - 11	2031	0.0012	3	0.030	2031	0.0012	1	0.003		0.00023		0.0012
12	1	11 - 12	2032	0.0012	3	0.030	2032	0.0012	1	0.003		0.00023		0.0012
13	1	12 - 13	2033	0.0012	3	0.030	2033	0.0012	1	0.003		0.00023		0.0012
14	1	13 - 14	2034	0.0012	3	0.030	2034	0.0012	1	0.003		0.00023		0.0012
15	1	14 - 15	2035	0.0012	3	0.030	2035	0.0012	1	0.003		0.00023		0.0012
16	1	15 - 16	2036	0.0012	3	0.030	2036	0.0012	1	0.003		0.00023		0.0012
17	1	16-17	2037	0.0012	1	0.003	2037	0.0012	1	0.003		0.00023		0.0012
18	1	17-18	2038	0.0012	1	0.003	2038	0.0012	1	0.003		0.00023		0.0012
19	1	18-19	2039	0.0012	1	0.003	2039	0.0012	1	0.003		0.00023		0.0012
20	1	19-20	2040	0.0012	1	0.003	2040	0.0012	1	0.003		0.00023		0.0012
21	1	20-21	2041	0.0012	1	0.003	2041	0.0012	1	0.003		0.00023		0.0012
22	1	21-22	2042	0.0012	1	0.003	2042	0.0012	1	0.003		0.00023		0.0012
23	1	22-23	2043	0.0012	1	0.003	2043	0.0012	1	0.003		0.00023		0.0012
24	1	23-24	2044	0.0012	1	0.003	2044	0.0012	1	0.003		0.00023		0.0012
25	1	24-25	2045	0.0012	1	0.003	2045	0.0012	1	0.003		0.00023		0.0012
26	1	25-26	2046	0.0012	1	0.003	2046	0.0012	1	0.003		0.00023		0.0012
27	1	26-27	2047	0.0012	1	0.003	2047	0.0012	1	0.003		0.00023		0.0012
28	1	27-28	2048	0.0012	1	0.003	2048	0.0012	1	0.003		0.00023		0.0012
29	1	28-29	2049	0.0012	1	0.003	2049	0.0012	1	0.003		0.00023		0.0012
30	1	29-30	2050	0.0012	1	0.003	2050	0.0012	1	0.003		0.00023		0.0012
Total Increased Cancer Risk						**14.59**				**0.28**				

* Third trimester of pregnancy

Spieker CCC Project, Walnut Creek, CA - Construction Impacts - With AQ-1 and AQ-2
Maximum DPM Cancer Risk and PM2.5 Calculations
Mitigated Impacts at Construction MEI: SF-Home - 1.5 meter receptor height

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

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

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

Where: C_{air} = concentration in air ($\mu g/m^3$)
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 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

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

Cancer Risk by Year -Construction MEI Receptor Location

		MEI: 3rd Trimester to Adulthood					MEI: Adult Only								
	Exposure				Age	Cancer	Modeled		Age	Cancer		Maximum Conc (ug/m3)		Max Conc (ug/m3)	Max Conc (ug/m3)
Exposure Year	Duration (years)	Age	DPM Conc (ug/m3) Year	Annual	Sensitivity Factor	Risk (per million)	DPM Conc (ug/m3) Year	Annual	Sensitivity Factor	Risk (per million)	HI	Fugitive PM2.5	Total PM2.5	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2021-2022	0.0029	10	0.04									
1	1	0 - 1	2021-2022	0.0029	10	0.48	2021-2022	0.0029	1	0.01	0.001	0.050	0.05	0.068	0.070
2	1	1 - 2	2022-2023	0.0054	10	0.88	2022-2023	0.0054	1	0.02	0.001	0.011	0.02	0.015	0.019
3	1	2 - 3	2023-2024	0.0048	3	0.12	2023-2024	0.0048	1	0.01	0.001	0.004	0.01	0.003	0.01
4	1	3 - 4	2024-2025	0.0034	3	0.09	2024-2025	0.0034	1	0.01	0.001	0.002	0.01	0.003	0.01
5	1	4 - 5	2025		3	0.00	2025		1	0.00					
6	1	5 - 6	2026		3	0.00	2026		1	0.00					
7	1	6 - 7	2027		3	0.00	2027		1	0.00					
8	1	7 - 8	2028		3	0.00	2028		1	0.00					
9	1	8 - 9	2029		3	0.00	2029		1	0.00					
10	1	9 - 10	2030		3	0.00	2030		1	0.00					
11	1	10 - 11	2031		3	0.00	2031		1	0.00					
12	1	11 - 12	2032		3	0.00	2032		1	0.00					
13	1	12 - 13	2033		3	0.00	2033		1	0.00					
14	1	13 - 14	2034		3	0.00	2034		1	0.00					
15	1	14 - 15	2035		3	0.00	2035		1	0.00					
16	1	15 - 16	2036		3	0.00	2036		1	0.00					
17	1	16-17	2037		1	0.00	2037		1	0.00					
18	1	17-18	2038		1	0.00	2038		1	0.00					
19	1	18-19	2039		1	0.00	2039		1	0.00					
20	1	19-20	2040		1	0.00	2040		1	0.00					
21	1	20-21	2041		1	0.00	2041		1	0.00					
22	1	21-22	2042		1	0.00	2042		1	0.00					
23	1	22-23	2043		1	0.00	2043		1	0.00					
24	1	23-24	2044		1	0.00	2044		1	0.00					
25	1	24-25	2045		1	0.00	2045		1	0.00					
26	1	25-26	2046		1	0.00	2046		1	0.00					
27	1	26-27	2047		1	0.00	2047		1	0.00					
28	1	27-28	2048		1	0.00	2048		1	0.00					
29	1	28-29	2049		1	0.00	2049		1	0.00					
30	1	29-30	2050		1	0.00	2050		1	0.00					
Total Increased Cancer Risk						**1.61**				**0.04**					
Total Increased Cancer Risk with AQ-1 and AQ-2						**1.61**									

* Third trimester of pregnancy

Spieker CCC Project, Walnut Creek, CA - Construction & Emergency Generator Impacts - With AQ-1 and AQ-2 Mitigation
Maximum DPM Cancer Risk Calculations
Mitigated Impacts at Project MEI: SF-Home - 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 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

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

Cancer Risk by Year -Project MEI Receptor Location

		MEI: 3rd Trimester to Adulthood					Adult - Exposure Information						
							Modeled					Maximum Conc (ug/m3)	
Exposure Year	**Exposure Duration (years)**	**Age**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Cancer Risk (per million)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age Sensitivity Factor**	**Cancer Risk (per million)**	**HI**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2021-2022	0.0029	10	0.04							
1	1	0 - 1	2021-2022	0.0029	10	0.48	2021-2022	0.0029	1	0.01	0.001	0.050	0.05
2	1	1 - 2	2022-2023	0.0054	10	0.88	2022-2023	0.0054	1	0.02	0.001	0.011	0.02
3	1	2 - 3	2023-2024	0.0048	3	0.12	2023-2024	0.0048	1	0.01	0.001	0.004	0.01
4	1	3 - 4	2024-2025	0.0034	3	0.09	2024-2025	0.0034	1	0.01	0.001	0.002	0.01
5	1	4 - 5	2025	0.0012	3	0.030	2025	0.0012	1	0.003	0.00023		0.001
6	1	5 - 6	2026	0.0012	3	0.030	2026	0.0012	1	0.003	0.00023		0.001
7	1	6 - 7	2027	0.0012	3	0.030	2027	0.0012	1	0.003	0.00023		0.001
8	1	7 - 8	2028	0.0012	3	0.030	2028	0.0012	1	0.003	0.00023		0.001
9	1	8 - 9	2029	0.0012	3	0.030	2029	0.0012	1	0.003	0.00023		0.001
10	1	9 - 10	2030	0.0012	3	0.030	2030	0.0012	1	0.003	0.00023		0.001
11	1	10 - 11	2031	0.0012	3	0.030	2031	0.0012	1	0.003	0.00023		0.001
12	1	11 - 12	2032	0.0012	3	0.030	2032	0.0012	1	0.003	0.00023		0.001
13	1	12 - 13	2033	0.0012	3	0.030	2033	0.0012	1	0.003	0.00023		0.001
14	1	13 - 14	2034	0.0012	3	0.030	2034	0.0012	1	0.003	0.00023		0.001
15	1	14 - 15	2035	0.0012	3	0.030	2035	0.0012	1	0.003	0.00023		0.001
16	1	15 - 16	2036	0.0012	3	0.030	2036	0.0012	1	0.003	0.00023		0.001
17	1	16-17	2037	0.0012	1	0.003	2037	0.0012	1	0.003	0.00023		0.001
18	1	17-18	2038	0.0012	1	0.003	2038	0.0012	1	0.003	0.00023		0.001
19	1	18-19	2039	0.0012	1	0.003	2039	0.0012	1	0.003	0.00023		0.001
20	1	19-20	2040	0.0012	1	0.003	2040	0.0012	1	0.003	0.00023		0.001
21	1	20-21	2041	0.0012	1	0.003	2041	0.0012	1	0.003	0.00023		0.001
22	1	21-22	2042	0.0012	1	0.003	2042	0.0012	1	0.003	0.00023		0.001
23	1	22-23	2043	0.0012	1	0.003	2043	0.0012	1	0.003	0.00023		0.001
24	1	23-24	2044	0.0012	1	0.003	2044	0.0012	1	0.003	0.00023		0.001
25	1	24-25	2045	0.0012	1	0.003	2045	0.0012	1	0.003	0.00023		0.001
26	1	25-26	2046	0.0012	1	0.003	2046	0.0012	1	0.003	0.00023		0.001
27	1	26-27	2047	0.0012	1	0.003	2047	0.0012	1	0.003	0.00023		0.001
28	1	27-28	2048	0.0012	1	0.003	2048	0.0012	1	0.003	0.00023		0.001
29	1	28-29	2049	0.0012	1	0.003	2049	0.0012	1	0.003	0.00023		0.001
30	1	29-30	2050	0.0012	1	0.003	2050	0.0012	1	0.003	0.00023		0.001
Total Increased Cancer Risk						**2.02**				**0.13**			
Total Increased Cancer Risk with AQ-1 and AQ-2 Mitigation						**2.02**							

* Third trimester of pregnancy

Spieker CCC Project, Walnut Creek, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
The Seven Hills School - 1.0 meter Receptor Height, School Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT 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)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Cancer Risk by Year - Maximum Impact Receptor at the School

		Child Exposure					Maximum Conc (ug/m3)	
Exposure Year	**Exposure Duration (years)**	**DPM Conc (ug/m3) Year**	**Annual**	**Age* Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
1	1	2021-2022	0.0363	3	1.64	0.007	0.147	0.184
2	1	2022-2023	0.0325	3	1.46	0.006	0.028	0.061
3	1	2023-2024	0.0208	3	0.94	0.004	0.004	0.024
4	1	2024-2025	0.0124	3	0.56	0.0025	0.003	0.015
5	1			3	0.00			
6	1			3	0.00			
7	1			3	0.00			
8	1			3	0.00			
9	1			3	0.00			
10	1			3	0.00			
11	1			3	0.00			
12	1			1	0.00			
13	1			1	0.00			
					4.6			

* School Children assumed to be 5 years and older

Spieker CCC Project, Walnut Creek, CA - Emergency Generator Impacts
Maximum DPM Cancer Risk and PM2.5 Calculations
The Seven Hills School - 1.0 meter Receptor Height, School Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT 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)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Cancer Risk by Year - Maximum Impact Receptor at the School

		Child Exposure					Maximum Conc (ug/m3)
Exposure Year	Exposure Duration (years)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Total PM2.5
1	1	2025	0.0019	3	0.085	0.00038	0.0019
2	1	2026	0.0019	3	0.085	0.00038	0.0019
3	1	2027	0.0019	3	0.085	0.00038	0.0019
4	1	2028	0.0019	3	0.085	0.00038	0.0019
5	1	2029	0.0019	3	0.085	0.00038	0.0019
6	1	2030	0.0019	3	0.085	0.00038	0.0019
7	1	2031	0.0019	3	0.085	0.00038	0.0019
8	1	2032	0.0019	3	0.085	0.00038	0.0019
9	1	2033	0.0019	3	0.085	0.00038	0.0019
10	1	2034	0.0019	3	0.085	0.00038	0.0019
11	1	2035	0.0019	3	0.085	0.00038	0.0019
12	1	2036	0.0019	1	0.028	0.00038	0.0019
13	1	2037	0.0019	1	0.028	0.00038	0.0019
					0.99		

* School Children assumed to be 5 years and older

Spieker CCC Project, Walnut Creek, CA - Construction & Ops Impacts - Without AQ-1 & AQ-2
Maximum DPM Cancer Risk and PM2.5 Calculations
The Seven Hills School - 1.0 meter Receptor Height, School Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT 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)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Cancer Risk by Year - Maximum Impact Receptor at the School

		Child Exposure					Maximum Conc (ug/m3)	
Exposure Year	Exposure Duration (years)	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
1	1	2021-2022	0.0361	3	1.63	0.01	0.14	0.18
2	1	2022-2023	0.0323	3	1.45	0.01	0.03	0.06
3	1	2023-2024	0.0207	3	0.93	0.00	0.003	0.02
4	1	2024-2025	0.0124	3	0.56	0.002	0.003	0.01
5	1	2025	0.0019	3	0.085	0.00038		0.002
6	1	2026	0.0019	3	0.085	0.00038		0.002
7	1	2027	0.0019	3	0.085	0.00038		0.002
8	1	2028	0.0019	3	0.085	0.00038		0.002
9	1	2029	0.0019	3	0.085	0.00038		0.002
10	1	2030	0.0019	3	0.085	0.00038		0.002
11	1	2031	0.0019	3	0.085	0.00038		0.002
12	1	2032	0.0019	1	0.028	0.00038		0.002
13	1	2033	0.0019	1	0.028	0.00038		0.002
					5.2			

* School Children assumed to be 5 years and older

Spieker CCC Project, Walnut Creek, CA - Construction Impacts - With AQ-1 and AQ-2
Maximum DPM Cancer Risk and PM2.5 Calculations
The Seven Hills School - 1.0 meter Receptor Height, School Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT 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)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Cancer Risk by Year - Maximum Impact Receptor at the School

		Child Exposure					Maximum Conc (ug/m3)	
Exposure Year	**Exposure Duration (years)**	**DPM Conc (ug/m3) Year**	**Annual**	**Age* Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
1	1	2021-2022	0.0026	3	0.12	0.001	0.067	0.070
2	1	2022-2023	0.0047	3	0.21	0.001	0.015	0.019
3	1	2023-2024	0.0042	3	0.19	0.001	0.004	0.008
4	1	2024-2025	0.0029	3	0.13	0.001	0.003	0.006
5	1							
6	1							
7	1							
8	1							
9	1							
10	1							
11	1							
12	1							
13	1							
					0.65			

* School Children assumed to be 5 years and older

Spieker Project, Walnut Creek, CA - Construction & Emergency Generator - With AQ-1 and AQ-2 Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations
The Seven Hills School - 1.0 meter Receptor Height, School Child Exposure

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT 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)

Inhalation Dose = C_{air} x SAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
SAF = Student Adjustment Factor (unitless)
= (24 hrs/9 hrs) x (7 days/5 days) = 3.73
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	School Child	Adult
Age -->	**0 - <2**	**2 - <16**	**16 - 30**
Parameter			
ASF =	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00
8-Hr BR* =	1200	520	230
A =	1	1	1
EF =	350	180	250
AT =	70	70	70
SAF =	1.00	3.73	1.00

* 95th percentile 8-hr breathing rates for moderate intensity activities

Cancer Risk by Year - Maximum Impact Receptor at the School

Exposure Year	Exposure Duration (years)	Child Exposure: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Maximum Conc (ug/m3) Fugitive PM2.5	Maximum Conc (ug/m3) Total PM2.5
1	1	2021-2022	0.0026	3	0.11	0.001	0.065	0.068
2	1	2022-2023	0.0047	3	0.21	0.001	0.014	0.019
3	1	2023-2024	0.0042	3	0.19	0.001	0.003	0.008
4	1	2024-2025	0.0029	3	0.13	0.001	0.003	0.005
5	1	2025	0.0019	3	0.085	0.00038		0.002
6	1	2026	0.0019	3	0.085	0.00038		0.002
7	1	2027	0.0019	3	0.085	0.00038		0.002
8	1	2028	0.0019	3	0.085	0.00038		0.002
9	1	2029	0.0019	3	0.085	0.00038		0.002
10	1	2030	0.0019	3	0.085	0.00038		0.002
11	1	2031	0.0019	3	0.085	0.00038		0.002
12	1	2032	0.0019	1	0.028	0.00038		0.002
13	1	2033	0.0019	1	0.028	0.00038		0.002
					1.30			

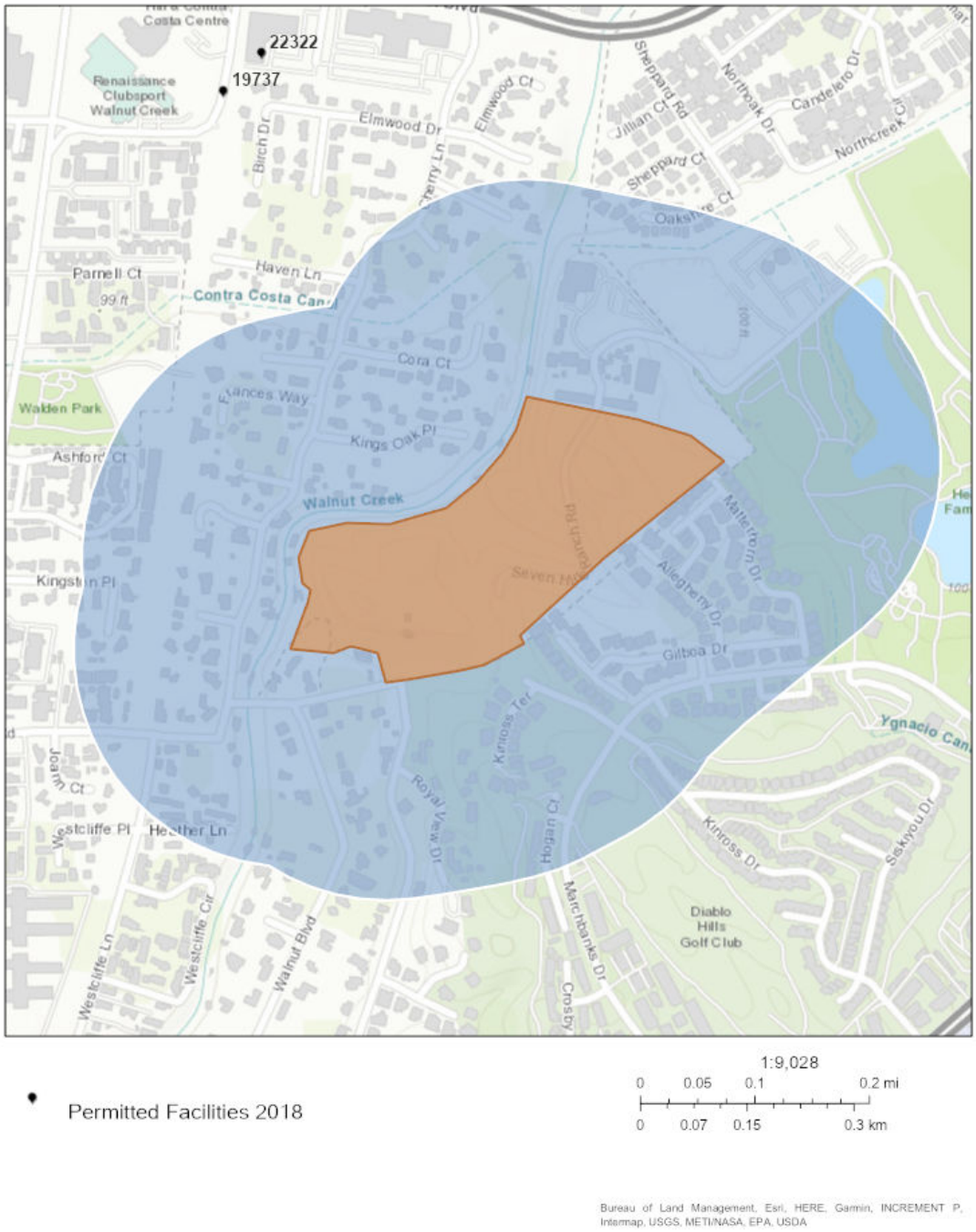
* School Children assumed to be between 5 years old and 17 years old

Stationary Source Risk & Hazards Screening Report

Area of Interest (AOI) Information

Area : 9,636,007.29 ft²

Sep 17 2021 14:35:17 Mountain Daylight Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Facilities 2018	0	N/A	N/A

Note: The estimated risk and hazard impacts from these sources would be expected to be substantially lower when site specific Health Risk Screening Assessments are conducted.

The screening level map is not recommended for evaluating sensitive land uses such as schools, senior centers, day cares, and health facilities.

Attachment 5: Operational Risk – Emergency Generator

Spieker CCRC Project, Walnut Creek, CA - Cancer Risks from Emergency Generator Operation
Impacts at On-Site MEI Receptor- 1.5m Receptor Heights

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

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

Cancer Risk by Year - Generator On-Site 1st Floor MEI Receptor Location

Exposure Year	Exposure Duration (years)	Age	MEI: Adult Only DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Maximum Conc (ug/m3) Total PM2.5
0	1	60	2025	0.0041	1	0.0118	0.0008	0.0041
1	1	61	2026	0.0041	1	0.0118	0.0008	0.0041
2	1	62	2027	0.0041	1	0.0118	0.0008	0.0041
3	1	63	2028	0.0041	1	0.0118	0.0008	0.0041
4	1	64	2029	0.0041	1	0.0118	0.0008	0.0041
5	1	65	2030	0.0041	1	0.0118	0.0008	0.0041
6	1	66	2031	0.0041	1	0.0118	0.0008	0.0041
7	1	67	2032	0.0041	1	0.0118	0.0008	0.0041
8	1	68	2033	0.0041	1	0.0118	0.0008	0.0041
9	1	69	2034	0.0041	1	0.0118	0.0008	0.0041
10	1	70	2035	0.0041	1	0.0118	0.0008	0.0041
11	1	71	2036	0.0041	1	0.0118	0.0008	0.0041
12	1	72	2037	0.0041	1	0.0118	0.0008	0.0041
13	1	73	2038	0.0041	1	0.0118	0.0008	0.0041
14	1	74	2039	0.0041	1	0.0118	0.0008	0.0041
15	1	75	2040	0.0041	1	0.0118	0.0008	0.0041
16	1	76	2041	0.0041	1	0.0118	0.0008	0.0041
17	1	77	2042	0.0041	1	0.0118	0.0008	0.0041
18	1	78	2043	0.0041	1	0.0118	0.0008	0.0041
19	1	79	2044	0.0041	1	0.0118	0.0008	0.0041
20	1	80	2045	0.0041	1	0.0118	0.0008	0.0041
21	1	81	2046	0.0041	1	0.0118	0.0008	0.0041
22	1	82	2047	0.0041	1	0.0118	0.0008	0.0041
23	1	83	2048	0.0041	1	0.0118	0.0008	0.0041
24	1	84	2049	0.0041	1	0.0118	0.0008	0.0041
25	1	85	2050	0.0041	1	0.0118	0.0008	0.0041
26	1	86	2051	0.0041	1	0.0118	0.0008	0.0041
27	1	87	2052	0.0041	1	0.0118	0.0008	0.0041
28	1	88	2053	0.0041	1	0.0118	0.0008	0.0041
29	1	89	2054	0.0041	1	0.0118	0.0008	0.0041
30	1	90	2055	0.0041	1	0.0118	0.0008	0.0041
Total Increased Cancer Risk						**0.37**		

Spieker CCRC Project, Walnut Creek, CA - Cancer Risks from Emergency Generator Operation
Impacts at On-Site 2nd Floor Max Receptor- 4.2m Receptor Heights

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

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

Cancer Risk by Year - Generator On-Site 2nd Floor Max Receptor Location

Exposure Year	Exposure Duration (years)	MEI: Adult Only Age	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Maximum Conc (ug/m3) Total PM2.5
0	1	60	2025	0.0014	1	0.0039	0.0003	0.0014
1	1	61	2026	0.0014	1	0.0039	0.0003	0.0014
2	1	62	2027	0.0014	1	0.0039	0.0003	0.0014
3	1	63	2028	0.0014	1	0.0039	0.0003	0.0014
4	1	64	2029	0.0014	1	0.0039	0.0003	0.0014
5	1	65	2030	0.0014	1	0.0039	0.0003	0.0014
6	1	66	2031	0.0014	1	0.0039	0.0003	0.0014
7	1	67	2032	0.0014	1	0.0039	0.0003	0.0014
8	1	68	2033	0.0014	1	0.0039	0.0003	0.0014
9	1	69	2034	0.0014	1	0.0039	0.0003	0.0014
10	1	70	2035	0.0014	1	0.0039	0.0003	0.0014
11	1	71	2036	0.0014	1	0.0039	0.0003	0.0014
12	1	72	2037	0.0014	1	0.0039	0.0003	0.0014
13	1	73	2038	0.0014	1	0.0039	0.0003	0.0014
14	1	74	2039	0.0014	1	0.0039	0.0003	0.0014
15	1	75	2040	0.0014	1	0.0039	0.0003	0.0014
16	1	76	2041	0.0014	1	0.0039	0.0003	0.0014
17	1	77	2042	0.0014	1	0.0039	0.0003	0.0014
18	1	78	2043	0.0014	1	0.0039	0.0003	0.0014
19	1	79	2044	0.0014	1	0.0039	0.0003	0.0014
20	1	80	2045	0.0014	1	0.0039	0.0003	0.0014
21	1	81	2046	0.0014	1	0.0039	0.0003	0.0014
22	1	82	2047	0.0014	1	0.0039	0.0003	0.0014
23	1	83	2048	0.0014	1	0.0039	0.0003	0.0014
24	1	84	2049	0.0014	1	0.0039	0.0003	0.0014
25	1	85	2050	0.0014	1	0.0039	0.0003	0.0014
26	1	86	2051	0.0014	1	0.0039	0.0003	0.0014
27	1	87	2052	0.0014	1	0.0039	0.0003	0.0014
28	1	88	2053	0.0014	1	0.0039	0.0003	0.0014
29	1	89	2054	0.0014	1	0.0039	0.0003	0.0014
30	1	90	2055	0.0014	1	0.0039	0.0003	0.0014
Total Increased Cancer Risk						**0.12**		

Spieker CCRC Project, Walnut Creek, CA - Cancer Risks from Emergency Generator Operation
Impacts at On-Site 3rd Floor Max Receptor- 7.04m Receptor Heights

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

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

Cancer Risk by Year - Generator On-Site 3rd Floor Max Receptor Location

		MEI: Adult Only						
Exposure Year	Exposure Duration (years)	Age	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Maximum Conc (ug/m3) Total PM2.5
0	1	60	2025	0.0004	1	0.0012	0.0001	0.0004
1	1	61	2026	0.0004	1	0.0012	0.0001	0.0004
2	1	62	2027	0.0004	1	0.0012	0.0001	0.0004
3	1	63	2028	0.0004	1	0.0012	0.0001	0.0004
4	1	64	2029	0.0004	1	0.0012	0.0001	0.0004
5	1	65	2030	0.0004	1	0.0012	0.0001	0.0004
6	1	66	2031	0.0004	1	0.0012	0.0001	0.0004
7	1	67	2032	0.0004	1	0.0012	0.0001	0.0004
8	1	68	2033	0.0004	1	0.0012	0.0001	0.0004
9	1	69	2034	0.0004	1	0.0012	0.0001	0.0004
10	1	70	2035	0.0004	1	0.0012	0.0001	0.0004
11	1	71	2036	0.0004	1	0.0012	0.0001	0.0004
12	1	72	2037	0.0004	1	0.0012	0.0001	0.0004
13	1	73	2038	0.0004	1	0.0012	0.0001	0.0004
14	1	74	2039	0.0004	1	0.0012	0.0001	0.0004
15	1	75	2040	0.0004	1	0.0012	0.0001	0.0004
16	1	76	2041	0.0004	1	0.0012	0.0001	0.0004
17	1	77	2042	0.0004	1	0.0012	0.0001	0.0004
18	1	78	2043	0.0004	1	0.0012	0.0001	0.0004
19	1	79	2044	0.0004	1	0.0012	0.0001	0.0004
20	1	80	2045	0.0004	1	0.0012	0.0001	0.0004
21	1	81	2046	0.0004	1	0.0012	0.0001	0.0004
22	1	82	2047	0.0004	1	0.0012	0.0001	0.0004
23	1	83	2048	0.0004	1	0.0012	0.0001	0.0004
24	1	84	2049	0.0004	1	0.0012	0.0001	0.0004
25	1	85	2050	0.0004	1	0.0012	0.0001	0.0004
26	1	86	2051	0.0004	1	0.0012	0.0001	0.0004
27	1	87	2052	0.0004	1	0.0012	0.0001	0.0004
28	1	88	2053	0.0004	1	0.0012	0.0001	0.0004
29	1	89	2054	0.0004	1	0.0012	0.0001	0.0004
30	1	90	2055	0.0004	1	0.0012	0.0001	0.0004
Total Increased Cancer Risk						**0.04**		

Spieker CCRC Project, Walnut Creek, CA - Cancer Risks from Emergency Generator Operation
Impacts at On-Site 4th Floor Max Receptor- 10.4m Receptor Heights

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

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

Cancer Risk by Year - Generator On-Site 4th Floor Max Receptor Location

		MEI: Adult Only						
Exposure Year	Exposure Duration (years)	Age	DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Maximum Conc (ug/m3) Total PM2.5
0	1	60	2025	0.0008	1	0.0023	0.0002	0.0008
1	1	61	2026	0.0008	1	0.0023	0.0002	0.0008
2	1	62	2027	0.0008	1	0.0023	0.0002	0.0008
3	1	63	2028	0.0008	1	0.0023	0.0002	0.0008
4	1	64	2029	0.0008	1	0.0023	0.0002	0.0008
5	1	65	2030	0.0008	1	0.0023	0.0002	0.0008
6	1	66	2031	0.0008	1	0.0023	0.0002	0.0008
7	1	67	2032	0.0008	1	0.0023	0.0002	0.0008
8	1	68	2033	0.0008	1	0.0023	0.0002	0.0008
9	1	69	2034	0.0008	1	0.0023	0.0002	0.0008
10	1	70	2035	0.0008	1	0.0023	0.0002	0.0008
11	1	71	2036	0.0008	1	0.0023	0.0002	0.0008
12	1	72	2037	0.0008	1	0.0023	0.0002	0.0008
13	1	73	2038	0.0008	1	0.0023	0.0002	0.0008
14	1	74	2039	0.0008	1	0.0023	0.0002	0.0008
15	1	75	2040	0.0008	1	0.0023	0.0002	0.0008
16	1	76	2041	0.0008	1	0.0023	0.0002	0.0008
17	1	77	2042	0.0008	1	0.0023	0.0002	0.0008
18	1	78	2043	0.0008	1	0.0023	0.0002	0.0008
19	1	79	2044	0.0008	1	0.0023	0.0002	0.0008
20	1	80	2045	0.0008	1	0.0023	0.0002	0.0008
21	1	81	2046	0.0008	1	0.0023	0.0002	0.0008
22	1	82	2047	0.0008	1	0.0023	0.0002	0.0008
23	1	83	2048	0.0008	1	0.0023	0.0002	0.0008
24	1	84	2049	0.0008	1	0.0023	0.0002	0.0008
25	1	85	2050	0.0008	1	0.0023	0.0002	0.0008
26	1	86	2051	0.0008	1	0.0023	0.0002	0.0008
27	1	87	2052	0.0008	1	0.0023	0.0002	0.0008
28	1	88	2053	0.0008	1	0.0023	0.0002	0.0008
29	1	89	2054	0.0008	1	0.0023	0.0002	0.0008
30	1	90	2055	0.0008	1	0.0023	0.0002	0.0008
Total Increased Cancer Risk						**0.07**		

Attachment 6: Contra Costa County – CAP Development Checklist

DEVELOPMENT CHECKLIST

Project Description Characteristics

Please identify the applicable land uses included in the proposed project and provide a brief description of the proposed project (or the project description to be used for the associated environmental document).

1) What is the size of the project (in acres)?:

2) Identify the applicable land uses:

- □ Residential
- □ Commercial
- □ Industrial
- □ Manufacturing
- □ Other

3) If there is a residential component to the project, how many units are being proposed?

SINGLE-FAMILY RESIDENCES:	
MULTI-FAMILY RESIDENCES:	

4) Please provide a brief project description:

5) Does the project require any amendments to the General Plan or specific plans?

□ Yes □ No

If yes, please explain:

6) Is the project located in a specific plan area?

□ Yes □ No

If yes, which one?

7) Please complete the following table to identify project compliance with any applicable CAP measures.

Table E.1. Standards for CAP Consistency – New Development

Reduction Measure and Applicable Standard	Does the Project Comply?	Notes & Comments
EE 1 & EE 6. New residential development will install high-efficiency appliances and insulation to prepare for the statewide transition to zero net energy.	□ Yes □ No □ N/A	Additional Notes:
EE 1. New nonresidential development will install high-efficiency appliances and insulation.	□ Yes □ No □ N/A	Additional Notes:
RE 1. New residential and nonresidential development will meet the standards to be solar ready as defined by the California Building Standards Code.	□ Yes □ No □ N/A	If yes, how many kW of solar will be installed? Additional Notes:
LUT 2. New single-family houses and multi-family units with private attached garages or carports will provide prewiring for EV charging stations inside the garage or carport.	□ Yes □ No □ N/A	If yes, how many spaces are prewired? Additional Notes:
LUT 2. New multi-family (greater than five units) and nonresidential (greater than 10,000 square feet) developments will provide EV charging stations in designated parking spots.	□ Yes □ No □ N/A	If yes, how many spaces are prewired? Additional Notes:
LUT 4. New residential and nonresidential development will be located within one half-mile of a BART or Amtrak station, or within one quarter-mile of bus station.	□ Yes □ No □ N/A	If yes, what is the vehicle miles traveled reduction from the project? Additional Notes:

Air Quality and Greenhouse Gas Emissions Peer Review

ATMOSPHERIC DYNAMICS, INC
Meteorological & Air Quality Modeling

October 6, 2021

Mr. Connor Tutino
David J. Powers & Associates
1737 Franklin Street, Suite 300
Oakland, CA 94612

Subject: Updated Peer Review of the "*Spieker CCRC AQ/GHG Emissions Analysis Report*", 9/17/21, by Illingworth & Rodkin, Inc.

Dear Mr. Tutino:

Atmospheric Dynamics, Inc. (ADI), has prepared the following updated peer review of the Spieker CCRC AQ/GHG Emissions Analysis Report, dated September 17th, 2021, as prepared by Illingworth & Rodkin, Inc. The revised Spieker analysis incorporated many of our suggested edits however, exposure duration issues were identified that focus on the derived cancer child risk calculations at the Seven Hills School. Originally, the revised report attachments did not include the school child risk calculations for construction, operation and combined construction and operation (see Comment 15 in previous Illingworth & Rodkin Response to Comments). The revised report now includes those risk calculations but based on a review of the tables containing the school cancer risk calculations, we have the following comments:

1. The tables for construction, operation, and combined construction and operation cancer risks at the Seven Hills School list an exposure duration of 0.5 years for the first year of exposure. It is unclear why this exposure duration was used for all exposure scenarios. The exposure duration should be 1.0 year. Although construction activities are projected to occur for a period of about 6 months during the first year of construction (2021-2022), the dispersion modeling of those emissions was conducted using the emissions distributed over the entire year. Therefore, in order for the school children to receive the entire dose from 6 months of emissions the cancer risks should be calculated using the modeled annual average concentration and an exposure duration of 1.0 year.

2. For cancer risks from emergency generator operation, it is unclear why an exposure duration of 0.5 years was used. The appropriate duration should be 1.0 year since the dispersion modeling of the generator was conducted assuming emissions from operation were distributed over an entire year.

3. Also note that the use of exposure durations of 0.5 years for the first year of exposure for school children is inconsistent with the assumptions used for the cancer risk calculations for the off-site residential receptors, which assumed an exposure duration of 1.0 for the first year of exposure to emissions.

Conclusion

The exposure duration should be revised to reflect the distribution of modeled concentrations over the one (1) year time period. This will affect the final calculated risk results of the project.