Creekside Assisted Living

Technical Appendices

Appendix B

Air Quality

AIR QUALITY ASSESSMENT

Creekside Assisted Living
City of San Marcos, CA

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August 19, 2020

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1.0 INTRODUCTION

1.1 Project Description

The project applicant is requesting approval of a General Plan Amendment (GPA), Specific Plan Amendment (SPA), Conditional Use Permit (CUP) and Variance to construct and operate a 138-room assisted living facility.

A General Plan Amendment is proposed to: 1) revise the land use map in the General Plan by changing the designation of the project site from Richmar Specific Plan to Heart of the City Specific Plan; and 2) to remove the Richmar Avenue bridge from the Mobility Element. An amendment to the Heart of the City Specific Plan to remove the Richmar Specific Plan subplan designation from the property. The underlying "Commercial" designation will remain the same. The amendment includes an update to the land use tables to allow for an assisted living facility under the Commercial of the Heart of the City Specific Plan designation with approval of a CUP. A CUP for the design review and to allow the operation of an assisted living facility. Finally, a variance is required to allow for a reduction of the building and parking setback from the prime arteria right-of-way along Twin Oaks Valley Road and 20 feet along Mission Road.

The Project proposes to develop an 121,556 Square-foot (SF) 138-unit residential senior-care facility which would have 138 units and a total of 174-beds. The proposed Project would be constructed on an undeveloped lot within the City of San Marcos. All phases (i.e. grading, paving and construction) of the proposed Project are anticipated to start in 2021 and be fully operational in 2022. The Project development plan is shown on Figure 1-A of this report.

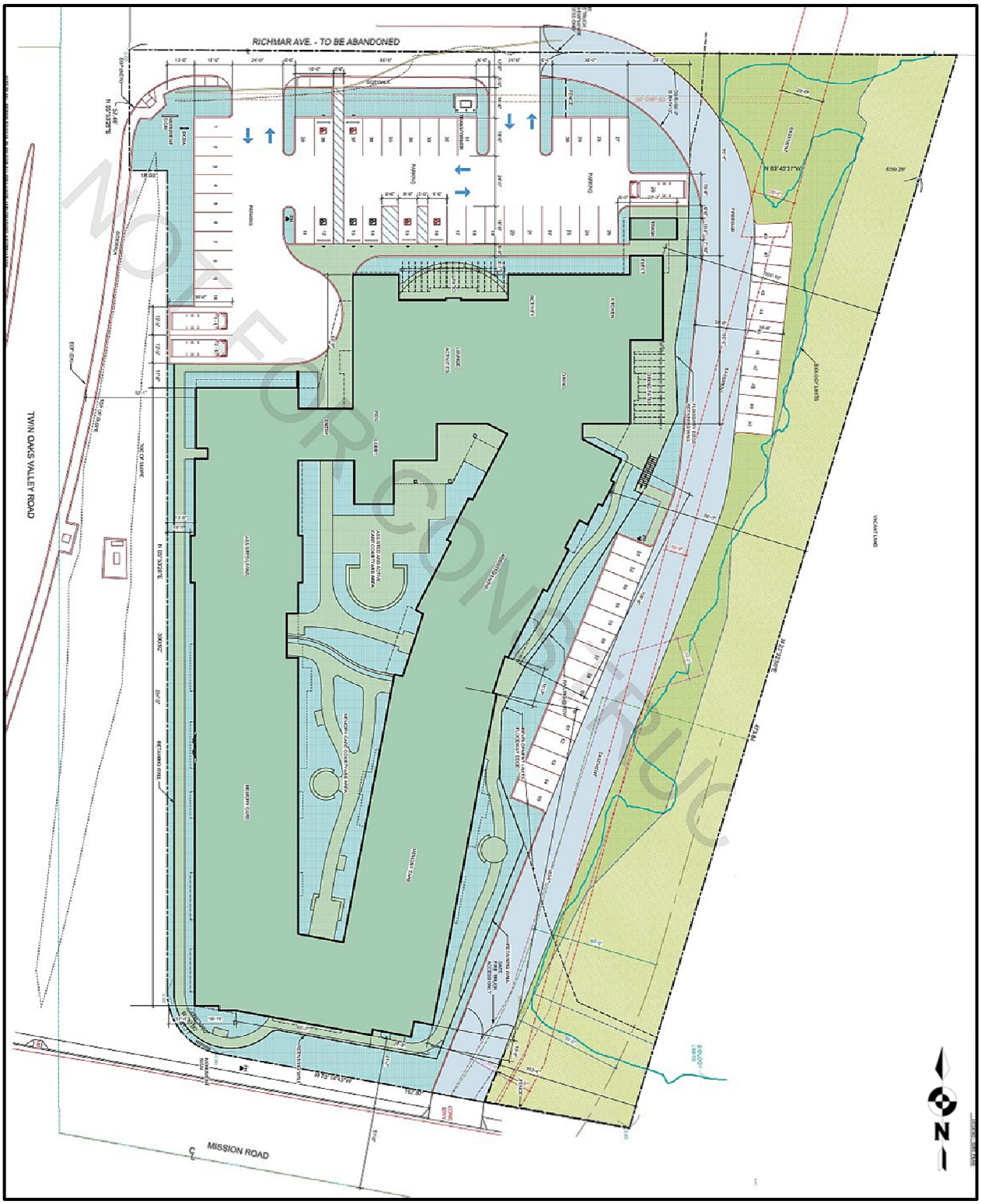
1.2 Project Location

The 3.78 acre project site is located north of Mission Road and east of North Twin Oaks Valley Road. The Project site is surrounded by mostly commercial developments and open space to the east. A project vicinity map and location map are shown in Figure 1-B.

1.3 Purpose of this Study

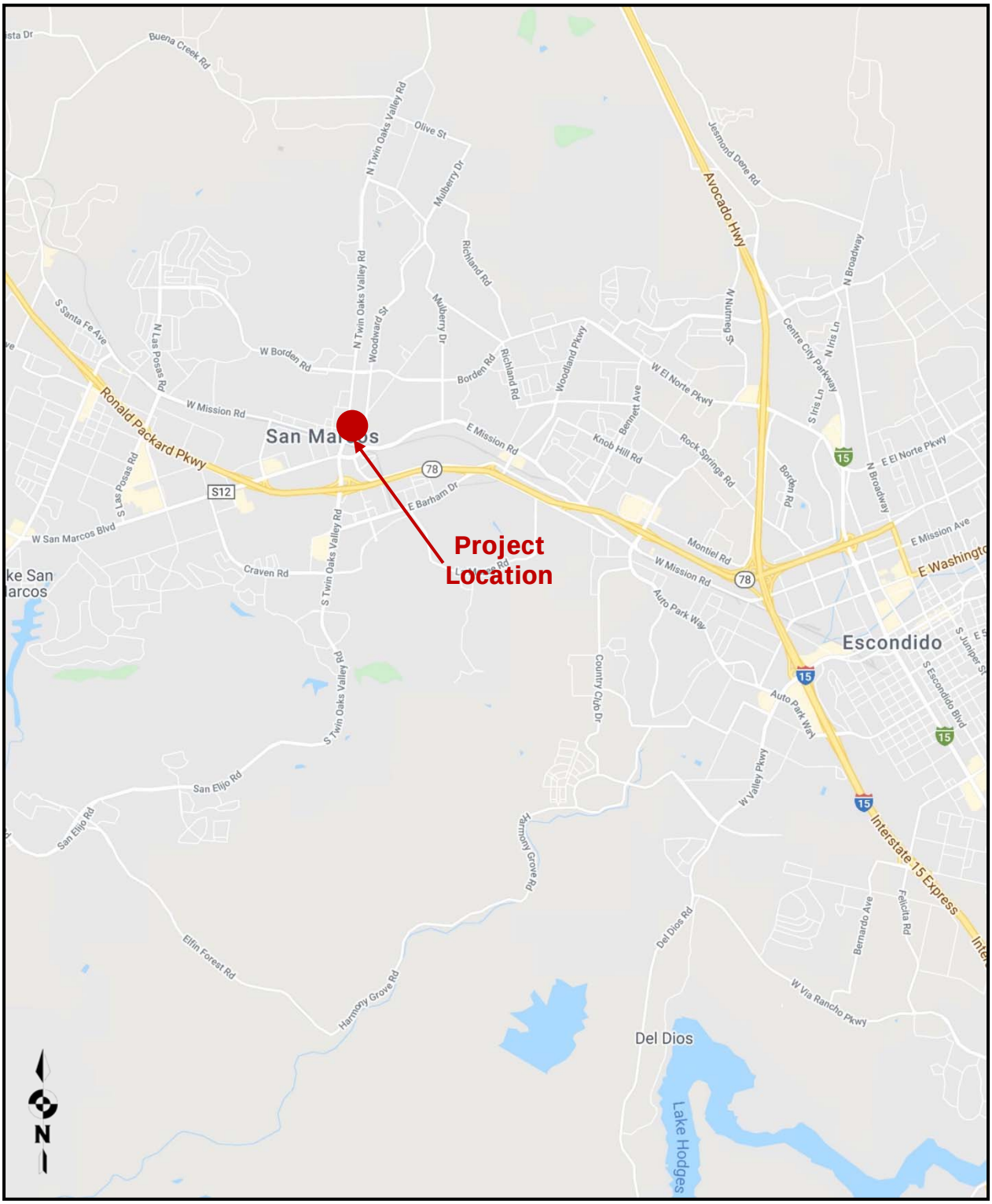
The purpose of this Air Quality study is to determine potential air quality impacts (if any) that may be generated by construction, area or operational emissions from the proposed Project. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to bring those impacts to a level that would be considered less than significant under the California Environmental Quality Act (CEQA).

Figure 1-A: Proposed Project Site Development Plan



Source (Whitfield Associates, Inc., 2020):

Figure 1-B: Project Vicinity Map



Source: (Google, 2020)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The Project site is located off of Twin Oaks Road in San Marcos, California. The existing site is currently undeveloped. The Project site is on generally level land. Elevations range from approximately 570 feet to 580 feet above mean sea level. The existing site aerial map is shown in Figure 2-A below.

Figure 2-A: Existing Site Layout

Source: (Google Earth Pro, 2020)

2.2 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heats up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego mostly sunny and warm. Typically, during the winter months, the high-pressure system drops to the south and brings cooler, moister weather from the north. It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SDAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning. The City of San Marcos is within the SDAB so the same generalizations are true for the City.

Meteorological trends within the City of San Marcos produce daytime highs typically ranging between 69ºF in the winter to approximately 85ºF in the summer with August usually being the hottest month. Median temperatures range from approximately 55ºF in the winter to approximately 74ºF in the summer. The average humidity is approximately 64% in the winter and about 74% in the summer (City-Data, 2018).

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. ***Primary Standards*** set limits to protect public health which includes sensitive populations such as asthmatics, children and elderly. ***Secondary Standards*** set limits to protect public welfare and include protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The Environmental Protection Agency's (EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

1. ***Carbon Monoxide (CO):*** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.*
2. ***Lead (Pb):*** *is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.*
3. ***Nitrogen Dioxide (NO_2):*** *is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO_2 is usually visible as a reddish-brown air layer over urban areas. NO_2 along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.*
4. ***Particulate Matter (PM_{10} or $PM_{2.5}$):*** *is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM_{10} particles are 10 microns (µm) or less and $PM_{2.5}$ particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.*
5. ***Ozone (O_3)****: is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.*

6. ***Sulfur Dioxide (SO_2)****: is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.*

2.3.2 State Standards and Definitions

The State of California Air Resources Board (ARB) sets the laws and regulations for air quality at State level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive then the NAAQS in that the State standards also restrict four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. ***Visibility Reducing Particles****: Particles in the Air that obstruct the visibility.*
2. ***Sulfates****: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.*
3. ***Hydrogen Sulfide (H_2S)****: is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H_2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death.*
4. ***Vinyl Chloride****: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).*

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	**Average Time**	**California Standards[1]**		**Federal Standards[2]**		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter (PM2.5)[9]	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3	15 µg/m3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-	-	-
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)[8]	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm[8] (188/ µg/m3)	-	
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm[10] (for Certain Areas)	-	Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9]
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm[10] (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3)	-	
Lead[12,13]	30 Day Average	1.5 µg/m3	Atomic Absorption	-		-
	Calendar Quarter	-		1.5 µg/m3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 13				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (California Air Resources Board, 05/04/2016)

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the $PM_{2.5}$ standard and many areas are in non-attainment for PM_{10} as well. The state therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed for California Air basis to attain ambient air quality standards.

The San Diego Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within San Diego County. Therefore, the SDAPCD developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status. Currently, San Diego County is in "non-attainment" status for federal and State O_3 and the State PM_{10} and $PM_{2.5}$ however, an attainment plan is only available of O_3 as the state does not set a requirement for attainment of PM standards. The RAQS was adopted in 1992 and has been updated as recently as 2016 which was the latest update incorporating minor changes to the prior 2009 update.

The 2016 update mostly summarizes how the 2009 update has lowered VOC and NOX emissions and clarifies and enhances emission reductions by introducing for discussion three new VOC and four new NOX reduction measures. The criteria pollutant standards are generally attained when each monitor within the region has had no exceedances during the previous three calendar years. A complete listing of the current attainment status with respect to both federal and state nonattainment status by pollutants for San Diego County is shown in Table 2.2 on the following page.

The air quality emission estimates used to develop the RAQS is largely based on population and traffic predictions by the San Diego Association of Governments (SANDAG). Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS and projects create more growth than projected by SANDAG may create a significant impact assuming the Project either produces unmitigable emission generation in excess of the regional standards. Also, the Project would be considered a significant impact if the Project produces cumulative impacts.

Table 2.2: San Diego County Air Basin Attainment Status by Pollutant

San Diego County Air Basin Attainment Status by Pollutant		
Criteria Pollutant	**Federal Designation**	**State Designation**
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

** The federal 1-hour standard of 12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.*
*** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.*
Source: (SDAPCD, 2018)

2.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA guidelines and are as follows:

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

A: Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?

B: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard (PM10, PM2.5 or exceed quantitative thresholds for O3 precursors, oxides of nitrogen [NOX] and Volatile Organic Compounds [VOCs])?

C: Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?

D: Result in other emissions (such as those leading to odors) adversely effecting a substantial number of people?

2.5 Applicable Air Quality Screening Thresholds

The SDAPCD does not provide specific numeric thresholds for determining the significance of air quality impacts under CEQA. However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new, modified, or relocated stationary sources (SDAPCD Rules 20.1, 20.2, and 20.3). These AQIA trigger levels do not generally apply to construction, mobile sources, or general land development projects; however, for comparative purposes, these levels are used to evaluate the increased emissions that would be discharged to the SDAB if the proposed Project were approved. SDAPCD Rules 20.2 and 20.3 do not specify thresholds for Volatile Organic Compounds (VOC). However, Rule 20.1 equates VOC and oxides of nitrogen (NOX) emissions and applies the same limitation on VOC and NOX emissions in ozone non-attainment areas; therefore, the VOC threshold is set equal to the NOX threshold. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the Project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3 below.

SDAPCD Rule 20.2 – Air Quality Impact Assessment Screening Thresholds

The SDAPCD has established trigger levels in Rule 20.2 for new or modified stationary sources to determine when an air quality impact analysis (AQIA) was required. The County's Guidelines for Determining Significance and Report Format and Content Requirements utilize the SDAPCD trigger levels as screening level thresholds for use in all County related Air Quality Impact reports and for determining CEQA air quality impacts. These screening criteria can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. Also, since SDAPCD does not identify a trigger level for Volatile Organic Compounds (VOCs), it is acceptable to use the Coachella Valley VOC threshold from South Coast Air Quality Management District. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the Project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3 on the following page.

Non Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that projects that propose to increase cancer risk to between 1 and 10 in one million need to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. At no time shall the Project increase the cancer risk to over 10 in one million. At no time shall the Project increase the cancer risk to over 10 in one million or

a health hazard index (chronic and acute) greater than one. Projects creating cancer risks less than one in one million are not required to implement T-BACT technology.

Table 2.3: Screening Level Thresholds for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55
Nitrogen Oxide (NO_x)	250
Sulfur Oxide (SO_x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55
Nitrogen Oxide (NO_x)	250
Sulfur Oxide (SO_x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75

The U.S. Environmental Protection Agency (U.S. EPA) uses the term Volatile Organic Compounds (VOC) and the California Air Resources Board's (CARB's) Emission Inventory Branch (EIB) uses the term Reactive Organic Gases (ROG) to essentially define the same thing. There are minor deviations between compounds that define each term however for purposes of this study we will assume they are essentially the same due to the fact SCAQMD interchanges these words and because CalEEMod directly calculates ROG in place of VOC.

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The SDAPCD is responsible for monitoring and reporting monitoring data. The District operates 10 monitoring sites, which collect data on criteria pollutants. The proposed development Project is closest to the Escondido Monitoring station which is located approximately 5.20 miles from the Project site however some pollutant emissions from

Escondido aren't monitored or reported. For these pollutants, emissions from the next closes monitoring location is Camp Pendleton about 14.5 miles away. Table 2.4 on the following page identifies the criteria pollutants monitored at the aforementioned station.

Four additional sites collect meteorological data which is used by the District to assist with pollutant forecasting, data analysis and characterization of pollutant transport. SDAPCD published the five-year air quality summary for all of the monitoring stations (SDAPCD, 2016).

Table 2.4: Three-Year Ambient Air Quality Summary near the Project Site

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2015	2016	2017	Days Exceeded over 3 years
O_3 (ppm)	Camp Pendleton or Escondido Monitoring Station	1 Hour	0.09 ppm	No Standard	0.09	0.08	0.09	0
		8 Hour	0.070 ppm	0.070 ppm	0.08	0.07	0.08	10
* PM_{10} ($\mu g/m^3$)		24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$	30	-	-	N/A
		Annual Arithmetic Mean	20 $\mu g/m^3$	No Standard	19.4	-	-	N/A
* $PM_{2.5}$ ($\mu g/m^3$)		24 Hour	No Standard	35 $\mu g/m^3$	29.4	-	-	N/A
		Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	8.6	-	-	N/A
NO_2 (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.006	0.006	0.006	N/A
		1 Hour	0.18 ppm	0.100 ppm	0.060	0.072	0.063	N/A
* CO (ppm)		1 Hour	20 ppm	35 ppm	3.1	-	-	N/A
		8 Hour	9 ppm	9 ppm	2.0	-	-	N/A

Notes:
1. - Yearly maximums marked with "-" indicated data was not available for either monitoring station.
2. Days exceeded marked with "N/A" indicate no data available
3. * Data was selected from the Escondido Monitoring Station. All other data presented was collected at the Camp Pendleton Monitoring Station.
4. SO_2 is only monitored at the El Cajon Monitoring Station. Within the entire County of San Diego, SO_2 emissions within the County are essentially Zero for all metrics including the Average, Maximum 24 hour and 1- hour standards. The Highest 1-hr measurement identified is .004 ppm and the most restrictive standard (CAAQS for SO_2) is 0.25 ppm.

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod air quality model, which was developed by ENVIRON International Corporation for South Coast Air Quality Management District (SCAQMD). The construction module in CalEEMod is used to calculate the emissions associated with the construction of the Project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in ***Attachment A*** to this report.

The AERSCREEN dispersion model was used to determine the concentration for air pollutants at any location near the pollutant generator. Additionally, the model will predict the maximum exposure distance and concentrations. The AERSCREEN input/output file for the proposed Project is shown in ***Attachment B*** at the end of this report. The worst case exhaust emissions generated from the Project from construction equipment was utilized and calculated within the CalEEMod model.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 (OEHHA, 2015):

Equation 1 $$Dose_{air}=C_{air}*(BR/BW)*A*EF*(1x10^{-6})$$

$Dose_{air}$	=	Dose through inhalation (mg/kg/d)
C_{air}	=	Concentration in air (µg/m^3) Annual average DPM concentration in µg/m^3 - AERSCREEN predicts a 1-hr concentration and is corrected to an annual average by multiplying the 1-hr average by 0.08 (US EPA, 1992)
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
$1x10^{-6}$	=	Milligrams to micrograms conversion (10^{-3} mg/ µg), cubic meters to liters conversion (10^{-3} m^3/l)

Once the dose is determined then you must calculate the cancer risk. The average daily inhalation dose (mg/kg-day) multiplied by the cancer potency factor $(mg/kg\text{-}day)^{-1}$ will give the inhalation cancer risk (unitless), which is an expression of the chemical's cancer risk during

a 70-year lifespan of exposure. For example, an inhalation cancer risk of 5 x 10^{-6} is the same as stating that an individual has an estimated probability of developing cancer from their exposure of 5 chances per million people exposed.

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are shown within the Project models attached to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015):

Equation 2

$$RISK_{inh\text{-}res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

$RISK_{inh\text{-}res}$	=	Residential inhalation cancer risk
$DOSE_{air}$	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

OEHHA recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans.

Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9-and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years. Cancer risk calculations are provided as ***Attachment C*** to this report.

Non-Cancer risks or risks defined as chronic or acute are also known with respect to DPM and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health Hazard Assessment (OEHHA, 2014). Diesel Exhaust has a REL of 5 $\mu g/m^3$ and targets the respiratory system.

3.2 Construction Assumptions

The project is expected to start sometime in 2021 and be completed in 2022. The estimated dates of construction and equipment are shown in Table 3.1 below. As a design feature, the Project's construction contractor will utilize Tier 4 rated diesel construction equipment with diesel particulate filters (DPF) to minimize diesel particulates matter from construction equipment. Table 3.1 below describes the construction equipment and durations. The construction analysis also includes truck trips or the import of earthwork materials for project grading.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Completion	Quantity	Work Days
Site Preparation	08/01/2021	08/06/2021		5
Graders			2	
Rubber Tired Dozers			2	
Grading	08/07/2021	09/03/2021		20
Excavators			1	
Graders			1	
Rubber Tired Dozers			1	
Tractors/Loaders/Backhoes			3	
Paving	09/04/2021	09/29/2021		18
Pavers			1	
Paving Equipment			2	
Rollers			2	
Building Construction	09/30/2021	08/17/2022		230
Cranes			1	
Forklifts			3	
Generator Sets			1	
Tractors/Loaders/Backhoes			3	
Welders			1	
Architectural Coating	5/25/2022	8/17/2022		61
Air Compressors			1	
This equipment list is based upon equipment inventory within CALEEMOD 2016.3.2.				

3.3 Operational Emissions

Once construction is completed the proposed Project would generate emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as onsite natural gas use. The Operational model results are also shown in ***Attachment A*** at the end of this report.

The Project wasn't specifically required to prepare a traffic impact assessment. Based on discussions with the City of San Marcos, a project of this type would generate 2.5 trips per unit or 345 daily trips. These traffic numbers were utilized within the CalEEMod analysis. VMT per trip were calculated using EMFAC 2017 for the 2022 scenario within the County of San Diego and are shown in ***Attachment D*** to this report. The model also estimates emission predictions for ROG, NOx, CO, SO_2, PM_{10} and $PM_{2.5}$ for area source assumptions. Additionally, it was assumed that an average of 10% of the structural surface area will be re-painted each year, the Project would not install wood burning fireplaces) within the development.

Finally, CalEEMod includes landscaping and consumer product assumptions which would apply to this project. Consumer product emissions are generated by a wide range of product categories, including air fresheners, automotive products, household cleaners, and personal care products. Emissions associated with these products primarily depend on the increased population associated with residential development.

3.4 Odor Impacts (Onsite)

Potential onsite odor generators would include short-term construction odors from activities such as paving and possibly painting. Given this, short-term construction odors would not be considered an impact. Also, since the Project is an assisted living residential development, no operational odor sources are expected.

4.0 FINDINGS

4.1 Construction Findings

The Project would start grading early 2021 with utility infrastructure and construction to start shortly thereafter. Construction of all the assisted living facility would be expected in just over one year. The following design features were assumed within the CalEEMod analysis:

- *Construction Design Feature 1: all heavy diesel construction equipment will be classified as Tier 4 with DPF.*
- *Construction Design Feature 2: In accordance with Rule 67 of the California Air Resource Board, only Low VOC paints shall be utilized onsite.*
- *Best Management Practice 1: Comply with SDAPCD's fugitive dust rules and fugitive dust control measures which will be provided by the City of San Marcos.*

Table 4.1 shows the expected construction emissions. Based on the cumulative totals, Air Quality impacts would not be expected.

Table 4.1: Expected Construction Emissions Summary

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2021	1.12	22.36	26.31	0.10	19.60	0.07	19.67	10.35	0.07	10.42
2022	29.27	4.46	23.02	0.05	1.21	0.02	1.23	0.32	0.02	0.34
Significance Threshold (lb/day)	**75**	**250**	**550**	**250**	**-**	**-**	**100**	**-**	**-**	**55**
SDAPCD Impact?	**No**	**No**	**No**	**No**	-	-	**No**	-	-	**No**

4.2 Health Risk

Based upon the air quality modeling and assuming Tier 4 equipment with DPF as a design feature to the proposed project, worst-case onsite PM_{10} from onsite construction exhaust would cumulatively produce 0.00085 tons over the construction duration (273-working days) or an average of 0.000099 grams/second.

Utilizing the AERSCREEN dispersion model, we find that the peak maximum 1-hr concentration is 0.23 $\mu g/m^3$ during the worst-case construction period. Converting the peak 1-hr concentration to an annual concentration by multiplying it by 0.08 (US EPA, 1992) yields an

annual concentration of 0.0184 µg/m^3. Therefore, utilizing the risk equation identified above in Section 3.1, the worst case inhalation cancer risk is 2.51 per million exposed at 50 meters from the geometric centroid of the Project. It should be noted again that a Project design feature would be to utilize Tier 4 diesel equipment with DPF and would therefore be a condition to the proposed Project. Given this, the construction scenario analyzed would be considered less than significant under CEQA and would be in compliance with the City's thresholds. Since the Project's diesel exhaust emissions are less than the Non-Cancer REL of 5 µg/m^3, Non-Cancer risks both acute and chronic would be less than significant.

4.3 Operational Findings

The expected operational emissions as calculated by CALEEMOD 2016.3.2 can be seen in Table 4.2 on the following page. Based upon these calculations, the proposed project would not generate operational air quality impacts.

Table 4.2: Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area Source Emission Estimates Mitigated (Lb/Day)	3.78	0.13	11.40	0.00	0.06	0.06
Energy Emission Estimates Mitigated (Lb/Day)	0.03	0.26	0.11	0.00	0.02	0.02
Mobile Emission Estimates Mitigated (Lb/Day)	0.53	2.14	5.89	0.02	1.79	0.49
Total (Lb/Day)	**4.35**	**2.53**	**17.41**	**0.02**	**1.87**	**0.57**
Screening Level Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Winter Scenario						
Area Source Emission Estimates (Lb/Day)	3.78	0.13	11.40	0.00	0.06	0.06
Energy Emission Estimates (Lb/Day)	0.03	0.26	0.11	0.00	0.02	0.02
Mobile Emission Estimates (Lb/Day)	0.52	2.19	5.83	0.02	1.79	0.49
Total (Lb/Day)	**4.33**	**2.58**	**17.34**	**0.02**	**1.87**	**0.57**
Screening Level Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod						

4.4 Cumulative Impacts

The Project seeks an amendment of the HOC SP to remove the Richmar Specific Plan subplan designation of the property. The underlying "Commercial" designation will remain the same. The amendment includes an update to the land sue tables to allow for an assisted living facility under the Commercial designation with approval of a CUP. The Project would not conflict with existing zoning density regulations within the HOC SP.

Based on this, the Project intensity and density would conform to the existing General Plan and would therefore be considered consistent with the County's RAQS and the State's air quality SIP. Finally, since no direct construction air quality impacts are expected, no cumulative construction impacts are expected.

4.5 Conclusion of Findings

During construction of the proposed Project, fugitive dust emissions will be expected during grading and equipment usage however, these emissions would not exceed City thresholds and would not be considered an impact. The Project has been designed and planned by incorporating design elements and best management practices which are a condition of approval to the Project as shown below:

- *Construction Design Feature 1: all heavy diesel construction equipment will be classified as Tier IV.*
- *Construction Design Feature 2: In accordance with Rule 67 of the California Air Resource Board, only Low VOC paints shall be utilized onsite (100 g/l or less).*
- *Best Management Practice 1: Comply with SDAPCD's fugitive dust rules and fugitive dust control measures which will be provided by the City of San Marcos.*

Additionally, emissions will be generated from both area and operational sources by the proposed Project which are the result of Project generated traffic, landscaping maintenance equipment, consumer products, and annual maintenance and painting to name a few. Impacts are not expected during operations.

Finally, the proposed Project would amendment the HOC SP to allow an assisted living use within the Commercial Zone. The proposed 138-unit assisted living use would be consistent with the currently allowed density and intensity under the City's General Plan. Given this, the Project would be consistent with the RAQS and SIP and would have a less than significant cumulative impact.

5.0 REFERENCES

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ATTACHMENT A

CalEEMod

Creekside Assisted Living

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	65.00	Space	0.59	26,000.00	0
Congregate Care (Assisted Living)	138.00	Dwelling Unit	3.19	138,000.00	395

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	458.86	**CH4 Intensity (lb/MWhr)**	0.019	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Creekside Assisted Living - San Diego County, Summer

Project Characteristics - RPS Ahieved 43% in 2018

Land Use - 3.89 acres

Construction Phase - extended time for import

Grading -

Architectural Coating - rule 67 paints

Vehicle Trips - Per Inputs from Applicant and EMFAC 2017 VMT per Trip witin the County of San Diego

Woodstoves - No Hearths

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	61.00
tblFireplaces	NumberGas	75.90	0.00
tblFireplaces	NumberNoFireplace	13.80	138.00
tblFireplaces	NumberWood	48.30	0.00
tblGrading	MaterialImported	0.00	16,000.00
tblGrading	MaterialImported	0.00	4,000.00
tblLandUse	LotAcreage	8.63	3.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.019
tblProjectCharacteristics	CO2IntensityFactor	720.49	458.86
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	HO_TL	7.50	7.48
tblVehicleTrips	HS_TL	7.30	7.48
tblVehicleTrips	HW_TL	10.80	7.48
tblVehicleTrips	ST_TR	2.20	2.50
tblVehicleTrips	SU_TR	2.44	2.50
tblVehicleTrips	WD_TR	2.74	2.50
tblWoodstoves	NumberCatalytic	6.90	0.00
tblWoodstoves	NumberNoncatalytic	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.5383	60.8391	26.5983	0.1006	19.5981	2.1074	21.7055	10.3492	1.9411	12.2903	0.0000	10,530.0441	10,530.0441	1.7879	0.0000	10,574.7404
2022	30.8259	19.1230	21.8996	0.0454	1.2130	0.9016	2.1145	0.3247	0.8530	1.1776	0.0000	4,419.7667	4,419.7667	0.6967	0.0000	4,437.1851
Maximum	**30.8259**	**60.8391**	**26.5983**	**0.1006**	**19.5981**	**2.1074**	**21.7055**	**10.3492**	**1.9411**	**12.2903**	**0.0000**	**10,530.0441**	**10,530.0441**	**1.7879**	**0.0000**	**10,574.7404**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.1157	22.3595	26.3131	0.1006	19.5981	0.0723	19.6703	10.3492	0.0695	10.4187	0.0000	10,530.0441	10,530.0441	1.7879	0.0000	10,574.7404
2022	29.2726	4.4624	23.0153	0.0454	1.2130	0.0175	1.2305	0.3247	0.0168	0.3415	0.0000	4,419.7667	4,419.7667	0.6967	0.0000	4,437.1851
Maximum	**29.2726**	**22.3595**	**26.3131**	**0.1006**	**19.5981**	**0.0723**	**19.6703**	**10.3492**	**0.0695**	**10.4187**	**0.0000**	**10,530.0441**	**10,530.0441**	**1.7879**	**0.0000**	**10,574.7404**

	ROG	NOx	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	**14.07**	**66.46**	**-1.71**	**0.00**	**0.00**	**97.01**	**12.26**	**0.00**	**96.91**	**20.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098
Energy	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
Mobile	0.5344	2.1416	5.8927	0.0206	1.7685	0.0166	1.7850	0.4726	0.0155	0.4881		2,092.0692	2,092.0692	0.1070		2,094.7436
Total	**4.3471**	**2.5320**	**17.4069**	**0.0228**	**1.7685**	**0.1005**	**1.8690**	**0.4726**	**0.0994**	**0.5720**	**0.0000**	**2,443.0159**	**2,443.0159**	**0.1331**	**6.0600e-003**	**2,448.1493**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098
Energy	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
Mobile	0.5344	2.1416	5.8927	0.0206	1.7685	0.0166	1.7850	0.4726	0.0155	0.4881		2,092.0692	2,092.0692	0.1070		2,094.7436
Total	**4.3471**	**2.5320**	**17.4069**	**0.0228**	**1.7685**	**0.1005**	**1.8690**	**0.4726**	**0.0994**	**0.5720**	**0.0000**	**2,443.0159**	**2,443.0159**	**0.1331**	**6.0600e-003**	**2,448.1493**

	ROG	NOx	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	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	9/3/2021	5	20	
3	Paving	Paving	9/4/2021	9/29/2021	5	18	
4	Building Construction	Building Construction	9/30/2021	8/17/2022	5	230	
5	Architectural Coating	Architectural Coating	5/25/2022	8/17/2022	5	61	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.59

Residential Indoor: 279,450; Residential Outdoor: 93,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,560 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	396.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,582.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	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

Use DPF for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5879	20.3016	4.9666	0.0611	1.3839	0.0619	1.4459	0.3793	0.0593	0.4385		6,697.7879	6,697.7879	0.5917		6,712.5791
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0405	0.4774	1.4700e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		146.5994	146.5994	4.1800e-003		146.7040
Total	**0.6502**	**20.3420**	**5.4441**	**0.0626**	**1.5318**	**0.0630**	**1.5948**	**0.4185**	**0.0602**	**0.4787**		**6,844.3872**	**6,844.3872**	**0.5958**		**6,859.2831**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**18.0663**	**9.3100e-003**	**18.0756**	**9.9307**	**9.3100e-003**	**9.9400**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5879	20.3016	4.9666	0.0611	1.3839	0.0619	1.4459	0.3793	0.0593	0.4385		6,697.7879	6,697.7879	0.5917		6,712.5791
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0405	0.4774	1.4700e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		146.5994	146.5994	4.1800e-003		146.7040
Total	**0.6502**	**20.3420**	**5.4441**	**0.0626**	**1.5318**	**0.0630**	**1.5948**	**0.4185**	**0.0602**	**0.4787**		**6,844.3872**	**6,844.3872**	**0.5958**		**6,859.2831**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5872	20.2759	4.9604	0.0610	1.3822	0.0619	1.4440	0.3788	0.0592	0.4380		6,689.3311	6,689.3311	0.5909		6,704.1036
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
Total	**0.6390**	**20.3096**	**5.3582**	**0.0622**	**1.5054**	**0.0627**	**1.5681**	**0.4115**	**0.0600**	**0.4715**		**6,811.4972**	**6,811.4972**	**0.5944**		**6,826.3569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.3632**	**1.5737**	**17.7527**	**0.0296**	**6.5523**	**7.2600e-003**	**6.5596**	**3.3675**	**7.2600e-003**	**3.3747**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5872	20.2759	4.9604	0.0610	1.3822	0.0619	1.4440	0.3788	0.0592	0.4380		6,689.3311	6,689.3311	0.5909		6,704.1036
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
Total	**0.6390**	**20.3096**	**5.3582**	**0.0622**	**1.5054**	**0.0627**	**1.5681**	**0.4115**	**0.0600**	**0.4715**		**6,811.4972**	**6,811.4972**	**0.5944**		**6,826.3569**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0859					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1798**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0449	0.5305	1.6300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		162.8882	162.8882	4.6500e-003		163.0044
Total	**0.0692**	**0.0449**	**0.5305**	**1.6300e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0500e-003**	**0.0446**		**162.8882**	**162.8882**	**4.6500e-003**		**163.0044**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2194	0.9509	13.5323	0.0189		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0859					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3053**	**0.9509**	**13.5323**	**0.0189**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0449	0.5305	1.6300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		162.8882	162.8882	4.6500e-003		163.0044
Total	**0.0692**	**0.0449**	**0.5305**	**1.6300e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0500e-003**	**0.0446**		**162.8882**	**162.8882**	**4.6500e-003**		**163.0044**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0575	1.9348	0.4931	5.1500e-003	0.1286	4.0600e-003	0.1327	0.0370	3.8900e-003	0.0409		553.5687	553.5687	0.0396		554.5576
Worker	0.3805	0.2472	2.9176	8.9900e-003	0.9036	6.2400e-003	0.9099	0.2397	5.7500e-003	0.2454		895.8850	895.8850	0.0256		896.5242
Total	**0.4379**	**2.1820**	**3.4107**	**0.0141**	**1.0322**	**0.0103**	**1.0426**	**0.2767**	**9.6400e-003**	**0.2863**		**1,449.4537**	**1,449.4537**	**0.0651**		**1,451.0817**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0575	1.9348	0.4931	5.1500e-003	0.1286	4.0600e-003	0.1327	0.0370	3.8900e-003	0.0409		553.5687	553.5687	0.0396		554.5576
Worker	0.3805	0.2472	2.9176	8.9900e-003	0.9036	6.2400e-003	0.9099	0.2397	5.7500e-003	0.2454		895.8850	895.8850	0.0256		896.5242
Total	**0.4379**	**2.1820**	**3.4107**	**0.0141**	**1.0322**	**0.0103**	**1.0426**	**0.2767**	**9.6400e-003**	**0.2863**		**1,449.4537**	**1,449.4537**	**0.0651**		**1,451.0817**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0534	1.8284	0.4670	5.0900e-003	0.1286	3.5000e-003	0.1321	0.0370	3.3400e-003	0.0404		548.3662	548.3662	0.0383		549.3247
Worker	0.3597	0.2254	2.7130	8.6600e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		863.0157	863.0157	0.0234		863.6017
Total	**0.4131**	**2.0538**	**3.1800**	**0.0138**	**1.0322**	**9.6100e-003**	**1.0419**	**0.2767**	**8.9600e-003**	**0.2857**		**1,411.3819**	**1,411.3819**	**0.0618**		**1,412.9264**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0534	1.8284	0.4670	5.0900e-003	0.1286	3.5000e-003	0.1321	0.0370	3.3400e-003	0.0404		548.3662	548.3662	0.0383		549.3247
Worker	0.3597	0.2254	2.7130	8.6600e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		863.0157	863.0157	0.0234		863.6017
Total	**0.4131**	**2.0538**	**3.1800**	**0.0138**	**1.0322**	**9.6100e-003**	**1.0419**	**0.2767**	**8.9600e-003**	**0.2857**		**1,411.3819**	**1,411.3819**	**0.0618**		**1,412.9264**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**28.6346**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0719	0.0451	0.5426	1.7300e-003	0.1807	1.2200e-003	0.1820	0.0479	1.1200e-003	0.0491		172.6031	172.6031	4.6900e-003		172.7203
Total	**0.0719**	**0.0451**	**0.5426**	**1.7300e-003**	**0.1807**	**1.2200e-003**	**0.1820**	**0.0479**	**1.1200e-003**	**0.0491**		**172.6031**	**172.6031**	**4.6900e-003**		**172.7203**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**28.4597**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0719	0.0451	0.5426	1.7300e-003	0.1807	1.2200e-003	0.1820	0.0479	1.1200e-003	0.0491		172.6031	172.6031	4.6900e-003		172.7203
Total	**0.0719**	**0.0451**	**0.5426**	**1.7300e-003**	**0.1807**	**1.2200e-003**	**0.1820**	**0.0479**	**1.1200e-003**	**0.0491**		**172.6031**	**172.6031**	**4.6900e-003**		**172.7203**

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	lb/day										lb/day					
Mitigated	0.5344	2.1416	5.8927	0.0206	1.7685	0.0166	1.7850	0.4726	0.0155	0.4881		2,092.0692	2,092.0692	0.1070		2,094.7436
Unmitigated	0.5344	2.1416	5.8927	0.0206	1.7685	0.0166	1.7850	0.4726	0.0155	0.4881		2,092.0692	2,092.0692	0.1070		2,094.7436

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	345.00	345.00	345.00	834,040	834,040
Parking Lot	0.00	0.00	0.00		
Total	345.00	345.00	345.00	834,040	834,040

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	7.48	7.48	7.48	41.60	18.80	39.60	86	11	3
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
Congregate Care (Assisted Living)	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	lb/day										lb/day					
NaturalGas Mitigated	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
NaturalGas Unmitigated	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2808.67	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
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
Total		**0.0303**	**0.2588**	**0.1101**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**		**330.4323**	**330.4323**	**6.3300e-003**	**6.0600e-003**	**332.3959**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2.80867	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
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
Total		**0.0303**	**0.2588**	**0.1101**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**		**330.4323**	**330.4323**	**6.3300e-003**	**6.0600e-003**	**332.3959**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098
Unmitigated	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3449	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630		20.5145	20.5145	0.0198		21.0098
Total	**3.7824**	**0.1315**	**11.4041**	**6.0000e-004**		**0.0630**	**0.0630**		**0.0630**	**0.0630**	**0.0000**	**20.5145**	**20.5145**	**0.0198**	**0.0000**	**21.0098**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3449	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630		20.5145	20.5145	0.0198		21.0098
Total	**3.7824**	**0.1315**	**11.4041**	**6.0000e-004**		**0.0630**	**0.0630**		**0.0630**	**0.0630**	**0.0000**	**20.5145**	**20.5145**	**0.0198**	**0.0000**	**21.0098**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Creekside Assisted Living

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	65.00	Space	0.59	26,000.00	0
Congregate Care (Assisted Living)	138.00	Dwelling Unit	3.19	138,000.00	395

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	458.86	**CH4 Intensity (lb/MWhr)**	0.019	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Creekside Assisted Living - San Diego County, Winter

Project Characteristics - RPS Ahieved 43% in 2018

Land Use - 3.89 acres

Construction Phase - extended time for import

Grading -

Architectural Coating - rule 67 paints

Vehicle Trips - Per Inputs from Applicant and EMFAC 2017 VMT per Trip witin the County of San Diego

Woodstoves - No Hearths

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	61.00
tblFireplaces	NumberGas	75.90	0.00
tblFireplaces	NumberNoFireplace	13.80	138.00
tblFireplaces	NumberWood	48.30	0.00
tblGrading	MaterialImported	0.00	16,000.00
tblGrading	MaterialImported	0.00	4,000.00
tblLandUse	LotAcreage	8.63	3.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.019
tblProjectCharacteristics	CO2IntensityFactor	720.49	458.86
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	HO_TL	7.50	7.48
tblVehicleTrips	HS_TL	7.30	7.48
tblVehicleTrips	HW_TL	10.80	7.48
tblVehicleTrips	ST_TR	2.20	2.50
tblVehicleTrips	SU_TR	2.44	2.50
tblVehicleTrips	WD_TR	2.74	2.50
tblWoodstoves	NumberCatalytic	6.90	0.00
tblWoodstoves	NumberNoncatalytic	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.5629	61.0192	26.8824	0.0994	19.5981	2.1087	21.7068	10.3492	1.9424	12.2915	0.0000	10,405.3437	10,405.3437	1.8071	0.0000	10,450.5202
2022	30.8878	19.1499	21.7506	0.0446	1.2130	0.9017	2.1147	0.3247	0.8531	1.1778	0.0000	4,342.0904	4,342.0904	0.6975	0.0000	4,359.5274
Maximum	**30.8878**	**61.0192**	**26.8824**	**0.0994**	**19.5981**	**2.1087**	**21.7068**	**10.3492**	**1.9424**	**12.2915**	**0.0000**	**10,405.3437**	**10,405.3437**	**1.8071**	**0.0000**	**10,450.5202**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.1403	22.5396	26.5971	0.0994	19.5981	0.0736	19.6716	10.3492	0.0708	10.4199	0.0000	10,405.3437	10,405.3437	1.8071	0.0000	10,450.5202
2022	29.3346	4.4893	22.8663	0.0446	1.2130	0.0177	1.2307	0.3247	0.0170	0.3416	0.0000	4,342.0904	4,342.0904	0.6975	0.0000	4,359.5274
Maximum	**29.3346**	**22.5396**	**26.5971**	**0.0994**	**19.5981**	**0.0736**	**19.6716**	**10.3492**	**0.0708**	**10.4199**	**0.0000**	**10,405.3437**	**10,405.3437**	**1.8071**	**0.0000**	**10,450.5202**

	ROG	NOx	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	**14.04**	**66.29**	**-1.71**	**0.00**	**0.00**	**96.97**	**12.25**	**0.00**	**96.86**	**20.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098
Energy	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
Mobile	0.5179	2.1939	5.8292	0.0195	1.7685	0.0167	1.7852	0.4726	0.0156	0.4882		1,983.9147	1,983.9147	0.1078		1,986.6107
Total	**4.3306**	**2.5842**	**17.3434**	**0.0218**	**1.7685**	**0.1006**	**1.8691**	**0.4726**	**0.0995**	**0.5722**	**0.0000**	**2,334.8615**	**2,334.8615**	**0.1340**	**6.0600e-003**	**2,340.0164**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098
Energy	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
Mobile	0.5179	2.1939	5.8292	0.0195	1.7685	0.0167	1.7852	0.4726	0.0156	0.4882		1,983.9147	1,983.9147	0.1078		1,986.6107
Total	**4.3306**	**2.5842**	**17.3434**	**0.0218**	**1.7685**	**0.1006**	**1.8691**	**0.4726**	**0.0995**	**0.5722**	**0.0000**	**2,334.8615**	**2,334.8615**	**0.1340**	**6.0600e-003**	**2,340.0164**

	ROG	NOx	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	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	9/3/2021	5	20	
3	Paving	Paving	9/4/2021	9/29/2021	5	18	
4	Building Construction	Building Construction	9/30/2021	8/17/2022	5	230	
5	Architectural Coating	Architectural Coating	5/25/2022	8/17/2022	5	61	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.59

Residential Indoor: 279,450; Residential Outdoor: 93,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,560 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	396.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,582.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	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

Use DPF for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6041	20.4767	5.2793	0.0600	1.3839	0.0633	1.4472	0.3793	0.0605	0.4398		6,582.0683	6,582.0683	0.6111		6,597.3455
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
Total	**0.6747**	**20.5221**	**5.7281**	**0.0614**	**1.5318**	**0.0643**	**1.5961**	**0.4185**	**0.0615**	**0.4800**		**6,719.6868**	**6,719.6868**	**0.6150**		**6,735.0629**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		9.3100e-003	9.3100e-003		9.3100e-003	9.3100e-003	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**18.0663**	**9.3100e-003**	**18.0756**	**9.9307**	**9.3100e-003**	**9.9400**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6041	20.4767	5.2793	0.0600	1.3839	0.0633	1.4472	0.3793	0.0605	0.4398		6,582.0683	6,582.0683	0.6111		6,597.3455
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
Total	**0.6747**	**20.5221**	**5.7281**	**0.0614**	**1.5318**	**0.0643**	**1.5961**	**0.4185**	**0.0615**	**0.4800**		**6,719.6868**	**6,719.6868**	**0.6150**		**6,735.0629**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6034	20.4508	5.2726	0.0599	1.3822	0.0632	1.4454	0.3788	0.0605	0.4392		6,573.7576	6,573.7576	0.6103		6,589.0155
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.6622**	**20.4887**	**5.6466**	**0.0611**	**1.5054**	**0.0640**	**1.5694**	**0.4115**	**0.0612**	**0.4727**		**6,688.4397**	**6,688.4397**	**0.6136**		**6,703.7800**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0296		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**0.3632**	**1.5737**	**17.7527**	**0.0296**	**6.5523**	**7.2600e-003**	**6.5596**	**3.3675**	**7.2600e-003**	**3.3747**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6034	20.4508	5.2726	0.0599	1.3822	0.0632	1.4454	0.3788	0.0605	0.4392		6,573.7576	6,573.7576	0.6103		6,589.0155
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.6622**	**20.4887**	**5.6466**	**0.0611**	**1.5054**	**0.0640**	**1.5694**	**0.4115**	**0.0612**	**0.4727**		**6,688.4397**	**6,688.4397**	**0.6136**		**6,703.7800**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0940	10.8399	12.2603	0.0189		0.5788	0.5788		0.5342	0.5342		1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0859					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1798**	**10.8399**	**12.2603**	**0.0189**		**0.5788**	**0.5788**		**0.5342**	**0.5342**		**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.4 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0505	0.4987	1.5300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		152.9095	152.9095	4.3900e-003		153.0193
Total	**0.0785**	**0.0505**	**0.4987**	**1.5300e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0500e-003**	**0.0446**		**152.9095**	**152.9095**	**4.3900e-003**		**153.0193**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2194	0.9509	13.5323	0.0189		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	1,804.5523	1,804.5523	0.5670		1,818.7270
Paving	0.0859					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3053**	**0.9509**	**13.5323**	**0.0189**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**1,804.5523**	**1,804.5523**	**0.5670**		**1,818.7270**

3.4 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0505	0.4987	1.5300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		152.9095	152.9095	4.3900e-003		153.0193
Total	**0.0785**	**0.0505**	**0.4987**	**1.5300e-003**	**0.1643**	**1.1300e-003**	**0.1654**	**0.0436**	**1.0500e-003**	**0.0446**		**152.9095**	**152.9095**	**4.3900e-003**		**153.0193**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0606	1.9296	0.5490	5.0100e-003	0.1286	4.2300e-003	0.1329	0.0370	4.0400e-003	0.0411		539.2567	539.2567	0.0420		540.3069
Worker	0.4315	0.2775	2.7426	8.4400e-003	0.9036	6.2400e-003	0.9099	0.2397	5.7500e-003	0.2454		841.0023	841.0023	0.0242		841.6064
Total	**0.4920**	**2.2071**	**3.2916**	**0.0135**	**1.0322**	**0.0105**	**1.0427**	**0.2767**	**9.7900e-003**	**0.2865**		**1,380.2590**	**1,380.2590**	**0.0662**		**1,381.9133**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0606	1.9296	0.5490	5.0100e-003	0.1286	4.2300e-003	0.1329	0.0370	4.0400e-003	0.0411		539.2567	539.2567	0.0420		540.3069
Worker	0.4315	0.2775	2.7426	8.4400e-003	0.9036	6.2400e-003	0.9099	0.2397	5.7500e-003	0.2454		841.0023	841.0023	0.0242		841.6064
Total	**0.4920**	**2.2071**	**3.2916**	**0.0135**	**1.0322**	**0.0105**	**1.0427**	**0.2767**	**9.7900e-003**	**0.2865**		**1,380.2590**	**1,380.2590**	**0.0662**		**1,381.9133**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0563	1.8222	0.5198	4.9600e-003	0.1286	3.6400e-003	0.1323	0.0370	3.4800e-003	0.0405		534.0950	534.0950	0.0407		535.1117
Worker	0.4089	0.2530	2.5449	8.1300e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		810.1781	810.1781	0.0221		810.7312
Total	**0.4652**	**2.0752**	**3.0647**	**0.0131**	**1.0322**	**9.7500e-003**	**1.0420**	**0.2767**	**9.1000e-003**	**0.2858**		**1,344.2731**	**1,344.2731**	**0.0628**		**1,345.8428**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		6.1200e-003	6.1200e-003		6.1200e-003	6.1200e-003	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**6.1200e-003**	**6.1200e-003**		**6.1200e-003**	**6.1200e-003**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0563	1.8222	0.5198	4.9600e-003	0.1286	3.6400e-003	0.1323	0.0370	3.4800e-003	0.0405		534.0950	534.0950	0.0407		535.1117
Worker	0.4089	0.2530	2.5449	8.1300e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		810.1781	810.1781	0.0221		810.7312
Total	**0.4652**	**2.0752**	**3.0647**	**0.0131**	**1.0322**	**9.7500e-003**	**1.0420**	**0.2767**	**9.1000e-003**	**0.2858**		**1,344.2731**	**1,344.2731**	**0.0628**		**1,345.8428**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**28.6346**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0818	0.0506	0.5090	1.6300e-003	0.1807	1.2200e-003	0.1820	0.0479	1.1200e-003	0.0491		162.0356	162.0356	4.4200e-003		162.1462
Total	**0.0818**	**0.0506**	**0.5090**	**1.6300e-003**	**0.1807**	**1.2200e-003**	**0.1820**	**0.0479**	**1.1200e-003**	**0.0491**		**162.0356**	**162.0356**	**4.4200e-003**		**162.1462**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4300					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**28.4597**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0818	0.0506	0.5090	1.6300e-003	0.1807	1.2200e-003	0.1820	0.0479	1.1200e-003	0.0491		162.0356	162.0356	4.4200e-003		162.1462
Total	**0.0818**	**0.0506**	**0.5090**	**1.6300e-003**	**0.1807**	**1.2200e-003**	**0.1820**	**0.0479**	**1.1200e-003**	**0.0491**		**162.0356**	**162.0356**	**4.4200e-003**		**162.1462**

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	lb/day										lb/day					
Mitigated	0.5179	2.1939	5.8292	0.0195	1.7685	0.0167	1.7852	0.4726	0.0156	0.4882		1,983.9147	1,983.9147	0.1078		1,986.6107
Unmitigated	0.5179	2.1939	5.8292	0.0195	1.7685	0.0167	1.7852	0.4726	0.0156	0.4882		1,983.9147	1,983.9147	0.1078		1,986.6107

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	345.00	345.00	345.00	834,040	834,040
Parking Lot	0.00	0.00	0.00		
Total	345.00	345.00	345.00	834,040	834,040

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	7.48	7.48	7.48	41.60	18.80	39.60	86	11	3
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
Congregate Care (Assisted Living)	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	lb/day										lb/day					
NaturalGas Mitigated	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
NaturalGas Unmitigated	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2808.67	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
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
Total		**0.0303**	**0.2588**	**0.1101**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**		**330.4323**	**330.4323**	**6.3300e-003**	**6.0600e-003**	**332.3959**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2.80867	0.0303	0.2588	0.1101	1.6500e-003		0.0209	0.0209		0.0209	0.0209		330.4323	330.4323	6.3300e-003	6.0600e-003	332.3959
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
Total		**0.0303**	**0.2588**	**0.1101**	**1.6500e-003**		**0.0209**	**0.0209**		**0.0209**	**0.0209**		**330.4323**	**330.4323**	**6.3300e-003**	**6.0600e-003**	**332.3959**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098
Unmitigated	3.7824	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630	0.0000	20.5145	20.5145	0.0198	0.0000	21.0098

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3449	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630		20.5145	20.5145	0.0198		21.0098
Total	**3.7824**	**0.1315**	**11.4041**	**6.0000e-004**		**0.0630**	**0.0630**		**0.0630**	**0.0630**	**0.0000**	**20.5145**	**20.5145**	**0.0198**	**0.0000**	**21.0098**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.9624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3449	0.1315	11.4041	6.0000e-004		0.0630	0.0630		0.0630	0.0630		20.5145	20.5145	0.0198		21.0098
Total	**3.7824**	**0.1315**	**11.4041**	**6.0000e-004**		**0.0630**	**0.0630**		**0.0630**	**0.0630**	**0.0000**	**20.5145**	**20.5145**	**0.0198**	**0.0000**	**21.0098**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Creekside Assisted Living

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	65.00	Space	0.59	26,000.00	0
Congregate Care (Assisted Living)	138.00	Dwelling Unit	3.19	138,000.00	395

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	458.86	**CH4 Intensity (lb/MWhr)**	0.019	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Creekside Assisted Living - San Diego County, Annual

Project Characteristics - RPS Ahieved 43% in 2018

Land Use - 3.89 acres

Construction Phase - extended time for import

Grading -

Architectural Coating - rule 67 paints

Vehicle Trips - Per Inputs from Applicant and EMFAC 2017 VMT per Trip witin the County of San Diego

Woodstoves - No Hearths

Area Coating - Rule 67 Paints

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 with DPF

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	61.00
tblFireplaces	NumberGas	75.90	0.00
tblFireplaces	NumberNoFireplace	13.80	138.00
tblFireplaces	NumberWood	48.30	0.00
tblGrading	MaterialImported	0.00	16,000.00
tblGrading	MaterialImported	0.00	4,000.00
tblLandUse	LotAcreage	8.63	3.19
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.019
tblProjectCharacteristics	CO2IntensityFactor	720.49	458.86
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	HO_TL	7.50	7.48
tblVehicleTrips	HS_TL	7.30	7.48
tblVehicleTrips	HW_TL	10.80	7.48
tblVehicleTrips	ST_TR	2.20	2.50
tblVehicleTrips	SU_TR	2.44	2.50
tblVehicleTrips	WD_TR	2.74	2.50
tblWoodstoves	NumberCatalytic	6.90	0.00
tblWoodstoves	NumberNoncatalytic	6.90	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	0.1304	1.3639	1.0597	2.7100e-003	0.1644	0.0552	0.2196	0.0730	0.0515	0.1245	0.0000	247.1509	247.1509	0.0433	0.0000	248.2341
2022	1.0486	1.4877	1.6526	3.4200e-003	0.0876	0.0693	0.1568	0.0235	0.0653	0.0888	0.0000	301.7720	301.7720	0.0504	0.0000	303.0328
Maximum	**1.0486**	**1.4877**	**1.6526**	**3.4200e-003**	**0.1644**	**0.0693**	**0.2196**	**0.0730**	**0.0653**	**0.1245**	**0.0000**	**301.7720**	**301.7720**	**0.0504**	**0.0000**	**303.0328**

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	0.0420	0.4380	1.1190	2.7100e-003	0.1644	1.4900e-003	0.1659	0.0730	1.4300e-003	0.0745	0.0000	247.1507	247.1507	0.0433	0.0000	248.2339
2022	0.9309	0.3581	1.7426	3.4200e-003	0.0876	1.3400e-003	0.0889	0.0235	1.2900e-003	0.0248	0.0000	301.7717	301.7717	0.0504	0.0000	303.0326
Maximum	**0.9309**	**0.4380**	**1.7426**	**3.4200e-003**	**0.1644**	**1.4900e-003**	**0.1659**	**0.0730**	**1.4300e-003**	**0.0745**	**0.0000**	**301.7717**	**301.7717**	**0.0504**	**0.0000**	**303.0326**

	ROG	NOx	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	**17.48**	**72.08**	**-5.50**	**0.00**	**0.00**	**97.73**	**32.31**	**0.00**	**97.67**	**53.47**	**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	8-1-2021	10-31-2021	0.9843	0.3520
2	11-1-2021	1-31-2022	0.6999	0.1711
3	2-1-2022	4-30-2022	0.6306	0.1614
4	5-1-2022	7-31-2022	1.3827	0.8624
5	8-1-2022	9-30-2022	0.3033	0.2048
		Highest	1.3827	0.8624

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	0.6584	0.0118	1.0264	5.0000e-005		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	1.6749	1.6749	1.6200e-003	0.0000	1.7154
Energy	5.5300e-003	0.0472	0.0201	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	171.6331	171.6331	5.8900e-003	2.0200e-003	172.3830
Mobile	0.0919	0.4008	1.0474	3.5800e-003	0.3143	3.0200e-003	0.3173	0.0842	2.8200e-003	0.0870	0.0000	330.7763	330.7763	0.0176	0.0000	331.2161
Waste						0.0000	0.0000		0.0000	0.0000	25.5606	0.0000	25.5606	1.5106	0.0000	63.3254
Water						0.0000	0.0000		0.0000	0.0000	2.8525	37.4750	40.3275	0.2945	7.2400e-003	49.8497
Total	**0.7558**	**0.4599**	**2.0939**	**3.9300e-003**	**0.3143**	**0.0125**	**0.3268**	**0.0842**	**0.0123**	**0.0965**	**28.4131**	**541.5594**	**569.9725**	**1.8302**	**9.2600e-003**	**618.4895**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6584	0.0118	1.0264	5.0000e-005		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	1.6749	1.6749	1.6200e-003	0.0000	1.7154
Energy	5.5300e-003	0.0472	0.0201	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	171.6331	171.6331	5.8900e-003	2.0200e-003	172.3830
Mobile	0.0919	0.4008	1.0474	3.5800e-003	0.3143	3.0200e-003	0.3173	0.0842	2.8200e-003	0.0870	0.0000	330.7763	330.7763	0.0176	0.0000	331.2161
Waste						0.0000	0.0000		0.0000	0.0000	25.5606	0.0000	25.5606	1.5106	0.0000	63.3254
Water						0.0000	0.0000		0.0000	0.0000	2.8525	37.4750	40.3275	0.2945	7.2400e-003	49.8497
Total	**0.7558**	**0.4599**	**2.0939**	**3.9300e-003**	**0.3143**	**0.0125**	**0.3268**	**0.0842**	**0.0123**	**0.0965**	**28.4131**	**541.5594**	**569.9725**	**1.8302**	**9.2600e-003**	**618.4895**

	ROG	NOx	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	Site Preparation	Site Preparation	8/1/2021	8/6/2021	5	5	
2	Grading	Grading	8/7/2021	9/3/2021	5	20	
3	Paving	Paving	9/4/2021	9/29/2021	5	18	
4	Building Construction	Building Construction	9/30/2021	8/17/2022	5	230	
5	Architectural Coating	Architectural Coating	5/25/2022	8/17/2022	5	61	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.59

Residential Indoor: 279,450; Residential Outdoor: 93,150; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,560 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	396.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,582.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	19.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	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

Use DPF for Construction Equipment

3.2 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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**9.7200e-003**	**0.1012**	**0.0529**	**1.0000e-004**	**0.0452**	**5.1100e-003**	**0.0503**	**0.0248**	**4.7000e-003**	**0.0295**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0517	0.0128	1.5000e-004	3.3900e-003	1.6000e-004	3.5400e-003	9.3000e-004	1.5000e-004	1.0800e-003	0.0000	15.0801	15.0801	1.3600e-003	0.0000	15.1141
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3152	0.3152	1.0000e-005	0.0000	0.3155
Total	**1.6500e-003**	**0.0518**	**0.0139**	**1.5000e-004**	**3.7500e-003**	**1.6000e-004**	**3.9000e-003**	**1.0300e-003**	**1.5000e-004**	**1.1800e-003**	**0.0000**	**15.3953**	**15.3953**	**1.3700e-003**	**0.0000**	**15.4296**

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1600e-003	5.0400e-003	0.0522	1.0000e-004		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
Total	**1.1600e-003**	**5.0400e-003**	**0.0522**	**1.0000e-004**	**0.0452**	**2.0000e-005**	**0.0452**	**0.0248**	**2.0000e-005**	**0.0249**	**0.0000**	**8.3589**	**8.3589**	**2.7000e-003**	**0.0000**	**8.4265**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0517	0.0128	1.5000e-004	3.3900e-003	1.6000e-004	3.5400e-003	9.3000e-004	1.5000e-004	1.0800e-003	0.0000	15.0801	15.0801	1.3600e-003	0.0000	15.1141
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.1200e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3152	0.3152	1.0000e-005	0.0000	0.3155
Total	**1.6500e-003**	**0.0518**	**0.0139**	**1.5000e-004**	**3.7500e-003**	**1.6000e-004**	**3.9000e-003**	**1.0300e-003**	**1.5000e-004**	**1.1800e-003**	**0.0000**	**15.3953**	**15.3953**	**1.3700e-003**	**0.0000**	**15.4296**

3.3 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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0655**	**0.0116**	**0.0771**	**0.0337**	**0.0107**	**0.0443**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2644**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9400e-003	0.2066	0.0510	6.1000e-004	0.0135	6.2000e-004	0.0142	3.7200e-003	6.0000e-004	4.3100e-003	0.0000	60.2442	60.2442	5.4400e-003	0.0000	60.3802
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.7000e-004	3.7500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0508	1.0508	3.0000e-005	0.0000	1.0515
Total	**6.4600e-003**	**0.2070**	**0.0547**	**6.2000e-004**	**0.0147**	**6.3000e-004**	**0.0154**	**4.0400e-003**	**6.1000e-004**	**4.6400e-003**	**0.0000**	**61.2950**	**61.2950**	**5.4700e-003**	**0.0000**	**61.4317**

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.0157	0.1775	3.0000e-004		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	**3.6300e-003**	**0.0157**	**0.1775**	**3.0000e-004**	**0.0655**	**7.0000e-005**	**0.0656**	**0.0337**	**7.0000e-005**	**0.0337**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2643**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9400e-003	0.2066	0.0510	6.1000e-004	0.0135	6.2000e-004	0.0142	3.7200e-003	6.0000e-004	4.3100e-003	0.0000	60.2442	60.2442	5.4400e-003	0.0000	60.3802
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.7000e-004	3.7500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0508	1.0508	3.0000e-005	0.0000	1.0515
Total	**6.4600e-003**	**0.2070**	**0.0547**	**6.2000e-004**	**0.0147**	**6.3000e-004**	**0.0154**	**4.0400e-003**	**6.1000e-004**	**4.6400e-003**	**0.0000**	**61.2950**	**61.2950**	**5.4700e-003**	**0.0000**	**61.4317**

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7336	14.7336	4.6300e-003	0.0000	14.8493
Paving	7.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0976**	**0.1103**	**1.7000e-004**		**5.2100e-003**	**5.2100e-003**		**4.8100e-003**	**4.8100e-003**	**0.0000**	**14.7336**	**14.7336**	**4.6300e-003**	**0.0000**	**14.8493**

3.4 Paving - 2021

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	6.3000e-004	4.5000e-004	4.5000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2609	1.2609	4.0000e-005	0.0000	1.2618
Total	**6.3000e-004**	**4.5000e-004**	**4.5000e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2609**	**1.2609**	**4.0000e-005**	**0.0000**	**1.2618**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9700e-003	8.5600e-003	0.1218	1.7000e-004		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	14.7335	14.7335	4.6300e-003	0.0000	14.8493
Paving	7.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7400e-003**	**8.5600e-003**	**0.1218**	**1.7000e-004**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**14.7335**	**14.7335**	**4.6300e-003**	**0.0000**	**14.8493**

3.4 Paving - 2021

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	6.3000e-004	4.5000e-004	4.5000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2609	1.2609	4.0000e-005	0.0000	1.2618
Total	**6.3000e-004**	**4.5000e-004**	**4.5000e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2609**	**1.2609**	**4.0000e-005**	**0.0000**	**1.2618**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0637	0.5840	0.5553	9.0000e-004		0.0321	0.0321		0.0302	0.0302	0.0000	77.5985	77.5985	0.0187	0.0000	78.0665
Total	**0.0637**	**0.5840**	**0.5553**	**9.0000e-004**		**0.0321**	**0.0321**		**0.0302**	**0.0302**	**0.0000**	**77.5985**	**77.5985**	**0.0187**	**0.0000**	**78.0665**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9700e-003	0.0654	0.0174	1.7000e-004	4.2200e-003	1.4000e-004	4.3600e-003	1.2200e-003	1.3000e-004	1.3500e-003	0.0000	16.6407	16.6407	1.2400e-003	0.0000	16.6715
Worker	0.0128	9.1400e-003	0.0921	2.9000e-004	0.0296	2.1000e-004	0.0298	7.8500e-003	1.9000e-004	8.0500e-003	0.0000	25.8143	25.8143	7.4000e-004	0.0000	25.8328
Total	**0.0148**	**0.0746**	**0.1095**	**4.6000e-004**	**0.0338**	**3.5000e-004**	**0.0341**	**9.0700e-003**	**3.2000e-004**	**9.4000e-003**	**0.0000**	**42.4549**	**42.4549**	**1.9800e-003**	**0.0000**	**42.5043**

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	0.0110	0.0749	0.5849	9.0000e-004		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	77.5984	77.5984	0.0187	0.0000	78.0664
Total	**0.0110**	**0.0749**	**0.5849**	**9.0000e-004**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**77.5984**	**77.5984**	**0.0187**	**0.0000**	**78.0664**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9700e-003	0.0654	0.0174	1.7000e-004	4.2200e-003	1.4000e-004	4.3600e-003	1.2200e-003	1.3000e-004	1.3500e-003	0.0000	16.6407	16.6407	1.2400e-003	0.0000	16.6715
Worker	0.0128	9.1400e-003	0.0921	2.9000e-004	0.0296	2.1000e-004	0.0298	7.8500e-003	1.9000e-004	8.0500e-003	0.0000	25.8143	25.8143	7.4000e-004	0.0000	25.8328
Total	**0.0148**	**0.0746**	**0.1095**	**4.6000e-004**	**0.0338**	**3.5000e-004**	**0.0341**	**9.0700e-003**	**3.2000e-004**	**9.4000e-003**	**0.0000**	**42.4549**	**42.4549**	**1.9800e-003**	**0.0000**	**42.5043**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1391	1.2727	1.3336	2.2000e-003		0.0659	0.0659		0.0620	0.0620	0.0000	188.8561	188.8561	0.0452	0.0000	189.9872
Total	**0.1391**	**1.2727**	**1.3336**	**2.2000e-003**		**0.0659**	**0.0659**		**0.0620**	**0.0620**	**0.0000**	**188.8561**	**188.8561**	**0.0452**	**0.0000**	**189.9872**

3.5 Building Construction - 2022

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	4.4500e-003	0.1503	0.0402	4.1000e-004	0.0103	2.9000e-004	0.0106	2.9700e-003	2.8000e-004	3.2400e-003	0.0000	40.1006	40.1006	2.9100e-003	0.0000	40.1734
Worker	0.0295	0.0203	0.2079	6.7000e-004	0.0719	5.0000e-004	0.0724	0.0191	4.6000e-004	0.0196	0.0000	60.4997	60.4997	1.6500e-003	0.0000	60.5409
Total	**0.0339**	**0.1706**	**0.2481**	**1.0800e-003**	**0.0822**	**7.9000e-004**	**0.0830**	**0.0221**	**7.4000e-004**	**0.0228**	**0.0000**	**100.6003**	**100.6003**	**4.5600e-003**	**0.0000**	**100.7143**

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	0.0267	0.1821	1.4230	2.2000e-003		5.0000e-004	5.0000e-004		5.0000e-004	5.0000e-004	0.0000	188.8559	188.8559	0.0452	0.0000	189.9870
Total	**0.0267**	**0.1821**	**1.4230**	**2.2000e-003**		**5.0000e-004**	**5.0000e-004**		**5.0000e-004**	**5.0000e-004**	**0.0000**	**188.8559**	**188.8559**	**0.0452**	**0.0000**	**189.9870**

3.5 Building Construction - 2022

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	4.4500e-003	0.1503	0.0402	4.1000e-004	0.0103	2.9000e-004	0.0106	2.9700e-003	2.8000e-004	3.2400e-003	0.0000	40.1006	40.1006	2.9100e-003	0.0000	40.1734
Worker	0.0295	0.0203	0.2079	6.7000e-004	0.0719	5.0000e-004	0.0724	0.0191	4.6000e-004	0.0196	0.0000	60.4997	60.4997	1.6500e-003	0.0000	60.5409
Total	**0.0339**	**0.1706**	**0.2481**	**1.0800e-003**	**0.0822**	**7.9000e-004**	**0.0830**	**0.0221**	**7.4000e-004**	**0.0228**	**0.0000**	**100.6003**	**100.6003**	**4.5600e-003**	**0.0000**	**100.7143**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2400e-003	0.0430	0.0553	9.0000e-005		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	7.7874	7.7874	5.1000e-004	0.0000	7.8001
Total	**0.8734**	**0.0430**	**0.0553**	**9.0000e-005**		**2.4900e-003**	**2.4900e-003**		**2.4900e-003**	**2.4900e-003**	**0.0000**	**7.7874**	**7.7874**	**5.1000e-004**	**0.0000**	**7.8001**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2100e-003	1.5200e-003	0.0156	5.0000e-005	5.3800e-003	4.0000e-005	5.4200e-003	1.4300e-003	3.0000e-005	1.4600e-003	0.0000	4.5282	4.5282	1.2000e-004	0.0000	4.5313
Total	**2.2100e-003**	**1.5200e-003**	**0.0156**	**5.0000e-005**	**5.3800e-003**	**4.0000e-005**	**5.4200e-003**	**1.4300e-003**	**3.0000e-005**	**1.4600e-003**	**0.0000**	**4.5282**	**4.5282**	**1.2000e-004**	**0.0000**	**4.5313**

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	0.8671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1000e-004	3.9300e-003	0.0559	9.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	7.7874	7.7874	5.1000e-004	0.0000	7.8001
Total	**0.8680**	**3.9300e-003**	**0.0559**	**9.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**7.7874**	**7.7874**	**5.1000e-004**	**0.0000**	**7.8001**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2100e-003	1.5200e-003	0.0156	5.0000e-005	5.3800e-003	4.0000e-005	5.4200e-003	1.4300e-003	3.0000e-005	1.4600e-003	0.0000	4.5282	4.5282	1.2000e-004	0.0000	4.5313
Total	**2.2100e-003**	**1.5200e-003**	**0.0156**	**5.0000e-005**	**5.3800e-003**	**4.0000e-005**	**5.4200e-003**	**1.4300e-003**	**3.0000e-005**	**1.4600e-003**	**0.0000**	**4.5282**	**4.5282**	**1.2000e-004**	**0.0000**	**4.5313**

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	0.0919	0.4008	1.0474	3.5800e-003	0.3143	3.0200e-003	0.3173	0.0842	2.8200e-003	0.0870	0.0000	330.7763	330.7763	0.0176	0.0000	331.2161
Unmitigated	0.0919	0.4008	1.0474	3.5800e-003	0.3143	3.0200e-003	0.3173	0.0842	2.8200e-003	0.0870	0.0000	330.7763	330.7763	0.0176	0.0000	331.2161

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	345.00	345.00	345.00	834,040	834,040
Parking Lot	0.00	0.00	0.00		
Total	345.00	345.00	345.00	834,040	834,040

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	7.48	7.48	7.48	41.60	18.80	39.60	86	11	3
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
Congregate Care (Assisted Living)	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	116.9264	116.9264	4.8400e-003	1.0200e-003	117.3512
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	116.9264	116.9264	4.8400e-003	1.0200e-003	117.3512
NaturalGas Mitigated	5.5300e-003	0.0472	0.0201	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.7068	54.7068	1.0500e-003	1.0000e-003	55.0319
NaturalGas Unmitigated	5.5300e-003	0.0472	0.0201	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.7068	54.7068	1.0500e-003	1.0000e-003	55.0319

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	1.02517e+006	5.5300e-003	0.0472	0.0201	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.7068	54.7068	1.0500e-003	1.0000e-003	55.0319
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		**5.5300e-003**	**0.0472**	**0.0201**	**3.0000e-004**		**3.8200e-003**	**3.8200e-003**		**3.8200e-003**	**3.8200e-003**	**0.0000**	**54.7068**	**54.7068**	**1.0500e-003**	**1.0000e-003**	**55.0319**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	1.02517e+006	5.5300e-003	0.0472	0.0201	3.0000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	54.7068	54.7068	1.0500e-003	1.0000e-003	55.0319
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		**5.5300e-003**	**0.0472**	**0.0201**	**3.0000e-004**		**3.8200e-003**	**3.8200e-003**		**3.8200e-003**	**3.8200e-003**	**0.0000**	**54.7068**	**54.7068**	**1.0500e-003**	**1.0000e-003**	**55.0319**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	552680	115.0323	4.7600e-003	1.0000e-003	115.4502
Parking Lot	9100	1.8940	8.0000e-005	2.0000e-005	1.9009
Total		**116.9264**	**4.8400e-003**	**1.0200e-003**	**117.3512**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	552680	115.0323	4.7600e-003	1.0000e-003	115.4502
Parking Lot	9100	1.8940	8.0000e-005	2.0000e-005	1.9009
Total		**116.9264**	**4.8400e-003**	**1.0200e-003**	**117.3512**

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	0.6584	0.0118	1.0264	5.0000e-005		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	1.6749	1.6749	1.6200e-003	0.0000	1.7154
Unmitigated	0.6584	0.0118	1.0264	5.0000e-005		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	1.6749	1.6749	1.6200e-003	0.0000	1.7154

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	0.0867					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5406					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0310	0.0118	1.0264	5.0000e-005		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	1.6749	1.6749	1.6200e-003	0.0000	1.7154
Total	**0.6584**	**0.0118**	**1.0264**	**5.0000e-005**		**5.6700e-003**	**5.6700e-003**		**5.6700e-003**	**5.6700e-003**	**0.0000**	**1.6749**	**1.6749**	**1.6200e-003**	**0.0000**	**1.7154**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0867					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5406					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0310	0.0118	1.0264	5.0000e-005		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	1.6749	1.6749	1.6200e-003	0.0000	1.7154
Total	**0.6584**	**0.0118**	**1.0264**	**5.0000e-005**		**5.6700e-003**	**5.6700e-003**		**5.6700e-003**	**5.6700e-003**	**0.0000**	**1.6749**	**1.6749**	**1.6200e-003**	**0.0000**	**1.7154**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	40.3275	0.2945	7.2400e-003	49.8497
Unmitigated	40.3275	0.2945	7.2400e-003	49.8497

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	8.99126 / 5.6684	40.3275	0.2945	7.2400e-003	49.8497
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**40.3275**	**0.2945**	**7.2400e-003**	**49.8497**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	8.99126 / 5.6684	40.3275	0.2945	7.2400e-003	49.8497
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**40.3275**	**0.2945**	**7.2400e-003**	**49.8497**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	25.5606	1.5106	0.0000	63.3254
Unmitigated	25.5606	1.5106	0.0000	63.3254

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	125.92	25.5606	1.5106	0.0000	63.3254
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**25.5606**	**1.5106**	**0.0000**	**63.3254**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	125.92	25.5606	1.5106	0.0000	63.3254
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**25.5606**	**1.5106**	**0.0000**	**63.3254**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B

AERSCREEN for PM_{10} Exhaust

TITLE: CREEKSIDE ASSISTED LIVING

********** AREA PARAMETERS **********

SOURCE EMISSION RATE: 0.979E-04 g/s 0.777E-03 lb/hr

AREA EMISSION RATE: 0.640E-08 g/(s-m2) 0.508E-07 lb/(hr-m2)
AREA HEIGHT: 3.00 meters 9.84 feet
AREA SOURCE LONG SIDE: 123.68 meters 405.77 feet
AREA SOURCE SHORT SIDE: 123.68 meters 405.77 feet
INITIAL VERTICAL DIMENSION: 1.00 meters 3.28 feet
RURAL OR URBAN: URBAN
POPULATION: 97000

FLAGPOLE RECEPTOR HEIGHT: 1.50 meters 4.92 feet

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	0.010	0.2300	45	75.0	WIN

* = worst case diagonal

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Cultivated Land
DOMINANT CLIMATE TYPE: Average Moisture
DOMINANT SEASON: Winter

ALBEDO: 0.60
BOWEN RATIO: 1.50

ROUGHNESS LENGTH: 0.010 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	16	16	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.08	0.014	-9.000	0.020	-999.	4.	3.7	0.010	1.50	0.60	0.50

HT	REF TA	HT
10.0	310.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	01	16	16	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.08	0.014	-9.000	0.020	-999.	4.	3.7	0.010	1.50	0.60	0.50

HT	REF TA	HT
10.0	310.0	2.0

********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.1566	2525.00	0.9223E-02
25.00	0.1837	2550.00	0.9100E-02
50.01	0.2082	2575.00	0.8979E-02
75.00	0.2300	2600.00	0.8861E-02
100.00	0.2171	2625.00	0.8746E-02
125.00	0.1737	2650.00	0.8634E-02
150.01	0.1457	2675.00	0.8523E-02
174.99	0.1265	2700.00	0.8416E-02
200.00	0.1130	2725.00	0.8310E-02
225.00	0.1023	2750.00	0.8207E-02
250.00	0.9362E-01	2775.00	0.8106E-02
274.99	0.8638E-01	2800.00	0.8008E-02
300.00	0.8023E-01	2825.00	0.7911E-02
325.00	0.7491E-01	2850.00	0.7816E-02
350.00	0.7029E-01	2875.00	0.7723E-02
375.01	0.6607E-01	2900.00	0.7633E-02
400.00	0.6228E-01	2925.00	0.7544E-02
425.00	0.5889E-01	2950.00	0.7456E-02
450.00	0.5587E-01	2975.00	0.7371E-02
475.01	0.5314E-01	3000.00	0.7287E-02
500.00	0.5067E-01	3025.00	0.7205E-02
525.00	0.4841E-01	3050.00	0.7124E-02
550.00	0.4633E-01	3075.00	0.7045E-02

575.01	0.4441E-01	3100.00	0.6968E-02
599.99	0.4265E-01	3125.00	0.6892E-02
625.00	0.4100E-01	3150.00	0.6817E-02
650.00	0.3948E-01	3174.99	0.6744E-02
675.00	0.3805E-01	3199.99	0.6672E-02
699.99	0.3671E-01	3225.00	0.6602E-02
725.00	0.3544E-01	3249.99	0.6532E-02
750.00	0.3426E-01	3274.99	0.6464E-02
775.00	0.3315E-01	3300.00	0.6398E-02
800.01	0.3210E-01	3325.00	0.6332E-02
825.00	0.3110E-01	3350.00	0.6268E-02
850.00	0.3016E-01	3375.00	0.6204E-02
875.00	0.2926E-01	3400.00	0.6142E-02
900.01	0.2841E-01	3425.00	0.6081E-02
924.99	0.2760E-01	3450.00	0.6021E-02
950.00	0.2684E-01	3475.00	0.5962E-02
975.00	0.2610E-01	3499.99	0.5904E-02
1000.00	0.2540E-01	3525.00	0.5847E-02
1024.99	0.2474E-01	3550.00	0.5791E-02
1050.00	0.2409E-01	3575.00	0.5736E-02
1075.00	0.2348E-01	3599.99	0.5682E-02
1100.00	0.2290E-01	3625.00	0.5629E-02
1125.01	0.2234E-01	3650.00	0.5576E-02
1150.00	0.2180E-01	3675.00	0.5525E-02
1175.00	0.2128E-01	3700.00	0.5474E-02
1200.00	0.2078E-01	3725.00	0.5424E-02
1225.01	0.2031E-01	3750.00	0.5375E-02
1250.00	0.1985E-01	3775.00	0.5327E-02
1275.00	0.1941E-01	3800.00	0.5279E-02
1300.00	0.1898E-01	3825.00	0.5232E-02
1325.01	0.1857E-01	3849.99	0.5186E-02
1349.99	0.1818E-01	3875.00	0.5141E-02
1375.00	0.1780E-01	3900.00	0.5096E-02
1400.00	0.1744E-01	3924.99	0.5052E-02
1425.00	0.1708E-01	3950.00	0.5009E-02
1450.00	0.1674E-01	3975.00	0.4967E-02
1475.00	0.1640E-01	4000.00	0.4925E-02
1500.00	0.1608E-01	4024.99	0.4883E-02
1525.00	0.1578E-01	4050.00	0.4843E-02
1550.01	0.1548E-01	4075.00	0.4802E-02
1575.00	0.1519E-01	4100.00	0.4763E-02
1600.00	0.1491E-01	4125.00	0.4724E-02
1625.00	0.1464E-01	4150.00	0.4686E-02
1650.00	0.1437E-01	4175.00	0.4648E-02
1675.00	0.1411E-01	4200.00	0.4611E-02
1700.00	0.1386E-01	4225.00	0.4574E-02
1725.00	0.1362E-01	4250.00	0.4538E-02
1750.00	0.1339E-01	4275.00	0.4502E-02
1774.99	0.1317E-01	4300.00	0.4467E-02
1800.00	0.1295E-01	4325.00	0.4433E-02
1825.00	0.1273E-01	4349.99	0.4398E-02
1850.00	0.1252E-01	4375.00	0.4365E-02
1875.00	0.1232E-01	4400.00	0.4332E-02
1900.00	0.1212E-01	4425.00	0.4299E-02
1925.00	0.1193E-01	4450.00	0.4267E-02
1950.00	0.1174E-01	4475.00	0.4235E-02
1975.00	0.1156E-01	4500.00	0.4204E-02
2000.00	0.1138E-01	4525.00	0.4173E-02
2025.00	0.1121E-01	4550.00	0.4142E-02
2050.00	0.1104E-01	4575.00	0.4112E-02
2075.00	0.1088E-01	4600.00	0.4082E-02
2099.99	0.1072E-01	4625.00	0.4053E-02
2125.00	0.1168E-01	4650.00	0.4024E-02
2150.00	0.1149E-01	4675.00	0.3996E-02
2175.00	0.1131E-01	4700.00	0.3968E-02
2200.00	0.1114E-01	4725.00	0.3940E-02
2225.00	0.1096E-01	4750.00	0.3913E-02
2250.00	0.1080E-01	4774.99	0.3886E-02
2275.00	0.1064E-01	4800.00	0.3859E-02

2300.00	0.1048E-01	4825.00	0.3833E-02
2325.00	0.1032E-01	4850.00	0.3807E-02
2350.00	0.1017E-01	4875.00	0.3782E-02
2375.00	0.1003E-01	4900.00	0.3756E-02
2400.00	0.9886E-02	4924.99	0.3731E-02
2425.00	0.9747E-02	4950.00	0.3707E-02
2450.00	0.9611E-02	4975.00	0.3683E-02
2475.00	0.9479E-02	5000.00	0.3659E-02
2500.00	0.9350E-02		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.2409	0.2409	0.2409	0.2409	N/A

DISTANCE FROM SOURCE 88.01 meters

IMPACT AT THE AMBIENT BOUNDARY	0.1566	0.1566	0.1566	0.1566	N/A

DISTANCE FROM SOURCE 1.00 meters

ATTACHMENT C

Cancer Risk Calculations

Air Quality Health Risk Calculations

Creekside Assisted Living (Tier 4 with DPF)

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.00085**
	Number of Workdays	**273**
	Emission per day (lb/day)	**0.006227106**
	Construction day (Hours)	**8**
	Emission Rate (Grams/Second)	**9.79472E-05**
	Project Site Size (Acres)	**2**
	Project Site Size (meters	**15297.11728**
	Length of Smalles Side (meters)	**123.6815155**
	Concentration Annual	**0.0184**

New Method based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015

Page 5-1 Calculate Point of Maximum Impact and Maximally Exposed Individual Resident

1st find Dose (Equation 5.4.1.1) Page 5-24

5.4 Estimation of Dose

	Construction Days	Construction Days converted to years				
Duration	273	0.747945205				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.0184	0.0184	0.0184	0.0184	0.0184	0.0184
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000638	0.00001925	0.00001521	0.00001316	0.00000592	0.00000512

8.2.4 Calculating Residential and Offsite Worker Inhalation Cancer Risk

Equation 8.2.4 A Page 8-7

Construction Days	273	0.747945205				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	0.747945205	0.747945205	0.747945205	0.747945205	0.747945205
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	2.12936E-07	1.92353E-06	3.86109E-07	3.3409E-07	5.07716E-08	4.39516E-08
	0.212936366	1.923529749	0.38610941	0.334090024	0.050771635	0.043951565

Cancer Risk Per Million 9-years	2.52
Cancer Risk Per Million 30-years	2.52
Cancer Risk Per Million 70-years	2.51

ATTACHMENT D

EMFAC 2017 Trip Distance Calculations

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: SAN DIEGO
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips
SAN DIEGO	2022	HHDT	Aggregated	Aggregated	GAS	18.77674363	2078.264597	375.6850865
SAN DIEGO	2022	HHDT	Aggregated	Aggregated	DSL	15794.34681	1903709.613	164553.9614
SAN DIEGO	2022	HHDT	Aggregated	Aggregated	NG	919.7504491	37432.2784	3587.026751
SAN DIEGO	2022	LDA	Aggregated	Aggregated	GAS	1435699.418	55007780.65	6783861.728
SAN DIEGO	2022	LDA	Aggregated	Aggregated	DSL	17133.82279	652152.3233	80255.84288
SAN DIEGO	2022	LDA	Aggregated	Aggregated	ELEC	29615.71622	1220433.518	147126.8242
SAN DIEGO	2022	LDT1	Aggregated	Aggregated	GAS	169175.431	5914590.816	769447.3084
SAN DIEGO	2022	LDT1	Aggregated	Aggregated	DSL	113.2397115	2054.345981	373.3953636
SAN DIEGO	2022	LDT1	Aggregated	Aggregated	ELEC	971.2611106	42156.15901	4899.002475
SAN DIEGO	2022	LDT2	Aggregated	Aggregated	GAS	488321.8489	17717580.65	2269428.213
SAN DIEGO	2022	LDT2	Aggregated	Aggregated	DSL	3092.947351	128253.9843	15116.12168
SAN DIEGO	2022	LDT2	Aggregated	Aggregated	ELEC	4120.808458	138746.596	20868.27325
SAN DIEGO	2022	LHDT1	Aggregated	Aggregated	GAS	35010.024	1262246.991	521597.1927
SAN DIEGO	2022	LHDT1	Aggregated	Aggregated	DSL	31841.31105	1204730.715	400523.6367
SAN DIEGO	2022	LHDT2	Aggregated	Aggregated	GAS	5418.126472	196430.7729	80722.01142
SAN DIEGO	2022	LHDT2	Aggregated	Aggregated	DSL	11200.50375	432523.1484	140888.2469
SAN DIEGO	2022	MCY	Aggregated	Aggregated	GAS	79518.52429	640833.4249	159037.0486
SAN DIEGO	2022	MDV	Aggregated	Aggregated	GAS	321247.3365	11505919.06	1477989.237
SAN DIEGO	2022	MDV	Aggregated	Aggregated	DSL	7551.73175	316244.8871	36627.42275
SAN DIEGO	2022	MDV	Aggregated	Aggregated	ELEC	2146.208886	74612.01209	10981.04226
SAN DIEGO	2022	MH	Aggregated	Aggregated	GAS	10724.34317	92397.506	1072.863291
SAN DIEGO	2022	MH	Aggregated	Aggregated	DSL	3838.325727	34608.84284	383.8325727
SAN DIEGO	2022	MHDT	Aggregated	Aggregated	GAS	3610.281121	207021.6124	72234.50467
SAN DIEGO	2022	MHDT	Aggregated	Aggregated	DSL	19669.05689	1194911.604	186583.7136
SAN DIEGO	2022	OBUS	Aggregated	Aggregated	GAS	1252.458708	63800.57212	25059.19382
SAN DIEGO	2022	OBUS	Aggregated	Aggregated	DSL	726.8076341	54661.74976	7248.336044
SAN DIEGO	2022	SBUS	Aggregated	Aggregated	GAS	265.865016	13954.70263	1063.460064
SAN DIEGO	2022	SBUS	Aggregated	Aggregated	DSL	2407.453653	75270.84262	27781.68138
SAN DIEGO	2022	UBUS	Aggregated	Aggregated	GAS	399.9064004	42016.61226	1599.625602
SAN DIEGO	2022	UBUS	Aggregated	Aggregated	DSL	0	0	0
SAN DIEGO	2022	UBUS	Aggregated	Aggregated	NG	1072.9883	120594.4401	4291.953199
						Total	100299748.7	13415578.38
						VMT/Trip	7.48	