Air Quality and Greenhouse Gas Report

Luiseño Village Retail Center
San Jacinto, CA

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1.0 Introduction

1.1 Scope of Study

This study evaluates the potential air quality and greenhouse gas (GHG) emissions that would result from the construction and operation of the Luiseño Village Retail Center. The project is proposed by the Soboba Band of Luiseño Indians (Tribe). The project site is located within the City of San Jacinto, Riverside County, California. The Tribe owns the site in fee title and the site is therefore subject to the jurisdiction of the City of San Jacinto. The project would require approval of discretionary permits from the City and therefore is subject to review under the California Environmental Quality Act (CEQA, California Public Resources Code Section 21000, et seq.). This study has been prepared to evaluate the potential for significant air quality and GHG impacts and to identify any measures necessary to mitigate significant impacts, consistent with CEQA requirements.

1.2 Project Summary

Site Location

The project site is located on the eastern side of the City of San Jacinto (**Figure 1**) at the southwest corner of Main Street and Ramona Expressway. Donna Way borders the south side of the project site (**Figure 2**). The site is located within an unsectioned area of the Rancho San Jacinto Viejo land grant, Township 4 South, Range 1 West (San Bernardino base line and meridian) as shown on the San Jacinto, California 7.5-minute USGS quadrangle.

Project Description

The Tribe is applying to the City of San Jacinto to rezone the 9.46 +/- acre project site from Commercial Neighborhood (CN) to Commercial General (CG) to allow for the development of the proposed retail center. The four-parcel site will be developed with the uses identified below. The Tribe is currently seeking to develop the multi-tenant retail building on Parcel 1, the remaining parcels will be developed in one or more following phases. **Figure 3** shows the layout of the four parcels along with proposed land uses. Site access would be provided by one right-in/out-only driveway on Main Street to the north, one right-in/out-only driveway on Ramona Expressway to the east, and one full access driveway on Donna Way to the south.

Parcel 1

The Tribe is proposing a multi-tenant retail building on Parcel 1. The building pad would accommodate a total of 14,583 square feet of specialty retail, with up to 10 individual tenant spaces ranging from 1,200 to 2,261 square feet each. The overall building would measure approximately 60 by 243 feet with a maximum height of 32.5 feet above grade. Off-street surface parking to be provided for the specialty retail center consists of 95 stalls, including 4 disabled stalls, 8 clean air vanpool/EV stalls, 5 future EV stalls, and 5 bus stalls. A total of 11 bicycle parking spaces would be provided.

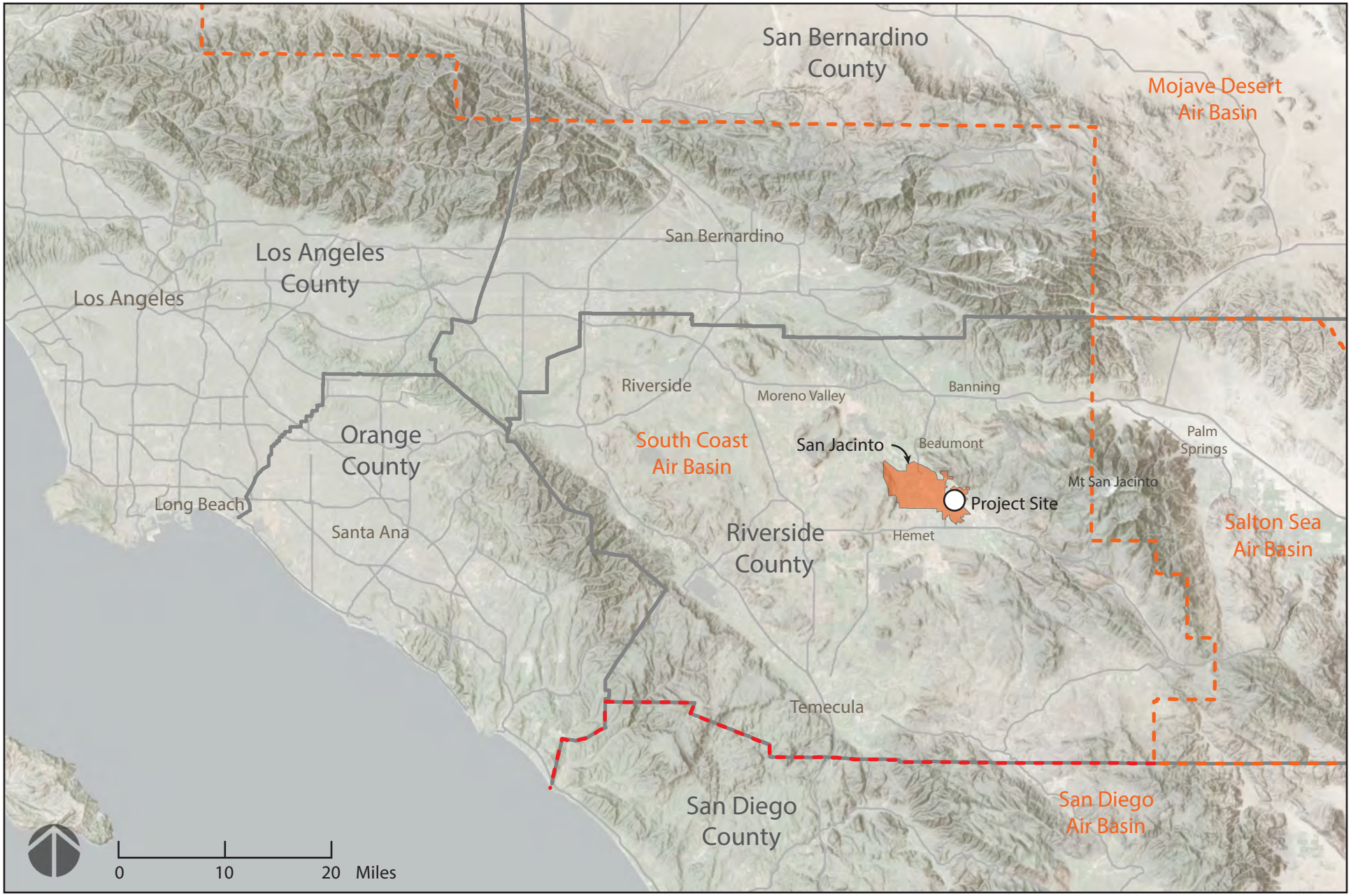

Figure 1

Regional Location

Figure 2

Project Site and Vicinity

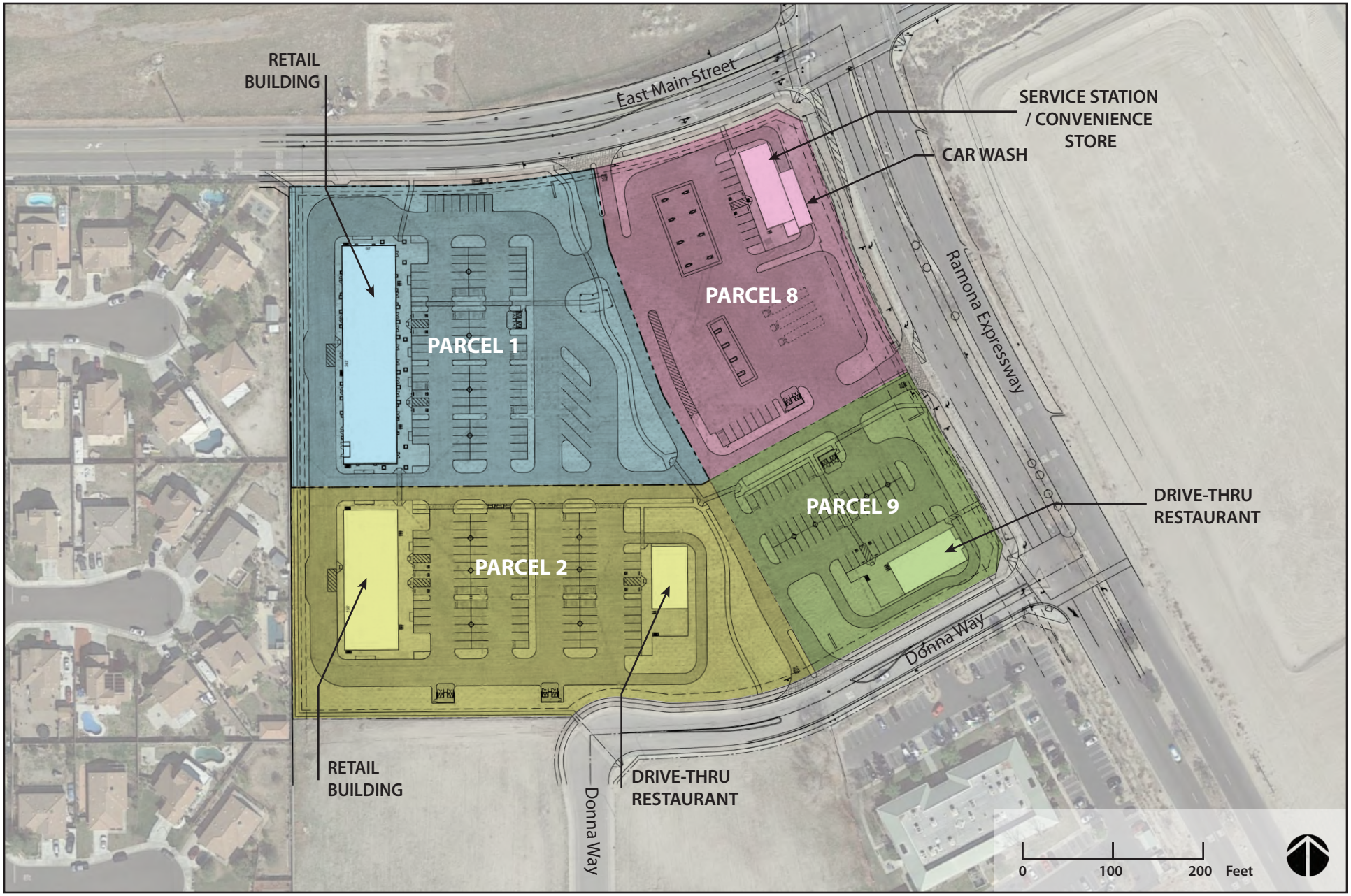

Figure 3

Site Plan

Parcel 2

A multi-tenant retail building and a restaurant are proposed for Parcel 2. The retail pad would have approximately 9,360 square feet and the restaurant would be 2,800 square feet with drive-thru service. Off-street surface parking to be provided on Parcel 2 would consist of 101 stalls, including 5 disabled stalls, 11 clean air vanpool/EV stalls, and 7 future EV stalls. A total of 11 bicycle parking spaces would be provided.

Parcel 8

A service station with convenience store (approximately 3,048 square feet) and car wash (approximately 1,105 square feet) is envisioned for Parcel 8 at the northeast corner of the project site. Off-street surface parking to be provided on Parcel 8 would consist of 18 stalls, including 2 disabled stalls, 1 clean air vanpool/EV stall, and 1 future EV stall. A total of 2 bicycle parking spaces would be provided.

Parcel 9

A restaurant of approximately 3,200 square feet with drive-thru service is envisioned for Parcel 9. Off-street surface parking to be provided on Parcel 9 would consist of 55 stalls, including 2 disabled stalls, 6 clean air vanpool/EV stalls, and 4 future EV stalls. A total of 6 bicycle parking spaces would be provided.

Sensitive Receptors

Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. The sensitivity of a population may be associated with age (especially children and the elderly), illness, or the potential for chronic exposure. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residences. The sensitive receptors near the project site include the following:

- Residences located west of the project site where homes are located within 40 feet of the project site,
- Soboba Indian Health Center located south of Donna Way approximately 150 feet south of the project site, and
- North Mountain Middle School located south of East 7th Street approximately 800 feet south of the project site.

Additional residential areas and the Jose Antonio Estudillo Elementary Schools are located in the surrounding area within one-quarter mile of the project site; however due to the greater distance from the project site, these areas would not be as sensitive as those listed above.

2.0 Air Quality Regulatory Framework

Air quality is regulated by the U.S. Environmental Protection Agency (EPA) on the national level, the California Air Resources Board (CARB) on the state level, and locally by the South Coast Air Quality Management District (SCAQMD) and the City of San Jacinto.

2.1 National and State Standards

Criteria Pollutants

Air quality standards have been adopted on the national and state levels to control the level of key pollutants, which are referred to as criterial pollutants. The California Ambient Air Quality Standards (CAAQS), were established in 1962 by the California Department of Public Health. The California Clean Air Act (CCAA), adopted in 1988, focuses on the attainment of these standards. Under the authority of the Clean Air Act (CAA), which was adopted in 1970, the EPA established the National Ambient Air Quality Standards (NAAQS). The following common air pollutants have established California and national ambient standards and are commonly referred to as "criteria pollutants":

- Ozone (O3)
- Inhalable particulate matter with diameter of ten microns or less (PM_{10})
- Fine particulate matter of 2.5 microns or less ($PM_{2.5}$)
- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO_2)
- Sulfur Dioxide (SO_2)
- Lead (Pb)

The NAAQS include both primary and secondary standards. The primary standards are intended to protect public health (with an adequate margin of safety) while the secondary standards define concentrations that would protect the public from adverse effects. As part of its enforcement responsibilities, the EPA requires each state with areas that don't meet these standards (referred to as "nonattainment areas") to prepare and submit a State Implementation Plan (SIP). The SIP is a plan which identifies how that state will attain and/or maintain the NAAQS. The California and national standards are summarized in **Table 1**.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are often referred to as "non-criteria" air contaminants because ambient air quality standards have not been established for them. There are hundreds of TACs, and exposure to these pollutants is associated with elevated risk of cancer and non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Effects may be chronic (i.e., of long duration) or acute (i.e., of short duration) on human health. Acute health effects are attributable to short term exposure to air toxics. These effects include nausea, skin irritation, respiratory illness, and, in extreme cases, death. Most TACs originate from human-made sources, including on-road mobile sources (e.g., cars and trucks), nonroad mobile sources (e.g., diesel-powered construction equipment), area sources (e.g., dry cleaners), and stationary sources (e.g., factories or refineries) (SCAQMD, 2005).

TABLE 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards[1]
Ozone (O3)	8 Hours	0.070 ppm	0.070 ppm
	1 Hour	0.09 ppm	—
Carbon Monoxide (CO)	8 Hours	9.0 ppm	9 ppm (10 mg/m^3)
	1 Hour	20 ppm	35 ppm (40 mg/m^3)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm	100 ppb
	Annual Mean	0.03 ppm	53 ppb (100 µg/m^3)
Sulfur Dioxide (SO_2)	24 Hours	0.04 ppm	75 ppb
	3 Hours	—	0.5 ppm
	1 Hour	0.25 ppm	75 ppb
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	N/A
	24 Hours	50 µg/m^3	150 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	12 µg/m^3	12 µg/m^3 *15 µg/m^3*
	24 Hours	N/A	35 µg/m^3
Sulfates	24 Hours	25 µg/m	N/A
Lead	Calendar Quarter	N/A	0.15 µg/m^3
	30 Day Average	1.5 µg/m^3	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm	N/A
Vinyl Chloride (chloroethene)	24 Hours	0.01 ppm	N/A
Visibility-Reducing Particles	8 Hours	Extinction of 0.23 per kilometer	N/A

Notes:
1. Primary or combined Primary/Secondary standard unless noted. Secondary standard in *italic*.

Key: ppm=parts per million; ppb=parts per billion; µg/m^3=micrograms per cubic meter
Source: EPA, 2018; CARB, 2016.

The EPA regulates TACs through technology-based requirements which are implemented by state & local agencies. California regulates TACs through the air toxics program and the Air Toxics "Hot Spots" Information and Assessment Act. CARB, working in conjunction with the Office of Environmental Health Hazard Assessment (OEHHA), identifies TACs. Air Toxic Control Measures (ATCMs) must then be adopted

by CARB to reduce the identified TACs. Where there are federal standards, CARB must, at minimum, adopt the standards established by the USEPA. If there is a threshold below which there would be no significant adverse health impacts, CARB must create an ATCM to reduce emissions so there are no adverse health effects. If there is not a threshold below which there would be no significant adverse health impacts CARB must create an ATCM that reduces TAC emissions using the best available control technologies. Local air quality control agencies must implement ATCMs, or adopt equal or more stringent control measures as rules, within six months of adoption by CARB (SCAQMD, 2005).

Gasoline vapors contain TACs such as benzene, ethylbenzene, toluene, xylenes, and naphthalene. CARB and SCAQMD regulate these emissions from gasoline dispensing facilities (service stations) by requiring emission controls. Vapor controls are required for the transfer of gasoline from tanker trucks to underground storage tanks, venting of underground storage tanks, and refueling vehicles.

Diesel exhaust is the major contributor to air toxics risk. Since 2004, there have been numerous regulations and initiatives to reduce diesel exhaust emissions by local, state and national authorities. These efforts along with those of the ports and private sector organizations have been successful in reducing actual risks from air toxics exposure. In the Basin, diesel particulate matter (DPM) levels fell by 70 percent between 2004 and 2012, and the average Basin cancer risk from air toxics fell by 65 percent (SCAQMD, 2015).

2.2 Federal Emission Regulations

The EPA regulates emissions of air pollution from stationary and mobile sources under the CAA. Stationary sources include facilities such as factories, power plants and chemical plants, which must install pollution control equipment. Motor vehicle engines and off-road vehicles and engines must meet CAA emissions standards. These standards apply to cars, trucks, buses, recreational vehicles and engines, generators, farm and construction machines, lawn and garden equipment, marine engines and locomotives. In addition, the composition of fuels used to operate mobile sources, including gasoline, diesel, ethanol, biodiesel and blends of these fuels, are also regulated under the CAA.

Nonroad Diesel Engine Standards

The first federal standards (Tier 1) for new nonroad (or off-road) diesel engines were adopted in 1994 for engines over 37 kW (50 hp), to be phased-in from 1996 to 2000. In 1998, the EPA signed the final rule, which also introduced Tier 1 standards for equipment under 37 kW (50 hp) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas aftertreatment (oxidation catalysts).

In 2004, EPA signed the final rule introducing Tier 4 emission standards, which are phased-in over the period of 2008-2015. The Tier 4 standards require that emissions of particulate matter (PM) and oxides of nitrogen (NOx) be further reduced by about 90 percent. Such emission reductions can be achieved by control technologies—including advanced exhaust gas aftertreatment.

Nonroad Diesel Fuel Standards

To enable sulfur-sensitive control technologies in Tier 4 engines—such as catalytic particulate filters and NOx adsorbers—the EPA mandated reductions in sulfur content in nonroad diesel fuels. The current standard is 15 ppm (ultra-low sulfur diesel) and became effective in 2010 for nonroad fuel.

2.3 California Emission Regulations

CARB is responsible for the coordination and administration of air pollution control programs within California. In this capacity, CARB establishes emissions standards for motor vehicles sold in California, consumer equipment and products (such as lawn mowers, generators, and lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

To reduce emissions from heavy-duty diesel vehicles used in construction, CARB has worked closely with the EPA, engine and vehicle manufacturers, and other interested parties to reduce emissions through a combination of measures including regulations requiring the use of ultra-low sulfur diesel fuel, new emission standards, restrictions on idling, addition of post-combustion filter and catalyst equipment, and retrofits for diesel truck fleets.

Off-Road Diesel Fueled Fleets Regulation

The purpose of the Off-Road regulation is to reduce emissions of oxides of nitrogen (NOx) and particulate matter (PM) from off-road diesel vehicles operating within California. The Off-Road regulation:

- Limits unnecessary idling to 5 minutes, requires a written idling policy, and requires a disclosure when selling vehicles;
- Requires all vehicles to be reported to CARB;
- Restricts the adding of older vehicles into fleets as of January 1, 2014; and
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).

The requirements and compliance dates of the Off-Road regulation vary by fleet size.

Commercial Vehicle Idling Regulation

Heavy-duty diesel commercial vehicles with a gross vehicle weight rating of 10,000 lbs. or heavier, including trucks and buses, are prohibited from idling for more than 5 minutes. Idling is allowed if a vehicle is stuck in traffic or if a truck's engine meets the optional low-NOx idling emission standard, and the truck is located more than 100 feet from any restricted areas. Restricted areas include: housing units, schools, hotels, motels, hospitals, senior care facilities or child care facilities. There is also a 5-minute limit on the operation of diesel-fueled auxiliary power systems when operated within 100 feet of a residence.

Gasoline Vapor Recovery Program

CARB's Vapor Recovery Program controls vapor emissions from gasoline marketing operations (gasoline dispensing facilities or service stations, tanker trucks (cargo tanks), bulk plants, and terminals), where gasoline vapor is a precursor to the formation of ozone and contains benzene, a constituent of gasoline vapor that has been identified as a TAC. CARB has issued a series of executive orders that require the installation of approved vapor control equipment as well as testing, record keeping and reporting.

2.4 South Coast Air Quality Management District

The project site is located within the South Coast Air Basin (Basin), which encompasses Los Angeles, Orange County, and portions of Riverside, San Bernardino, and Los Angeles counties. The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for the Basin. SCAQMD develops and adopts an Air Quality Management Plan (AQMP), which serves as the blueprint to bring the Basin into compliance with federal and state clean air standards. SCAQMD's Final 2016 AQMP is the latest document designed to satisfy requirements of both federal and state clean air laws. The plan outlines policies and practices intended to achieve attainment levels for criteria pollutants and avoid future levels that exceed applicable standards.

SCAQMD Rule 201 – Permit to Construct

Rule 201 applies to the construction of stationary sources (including gasoline stations) that have the potential to emit air contaminants. The rule prohibits construction without first obtaining a permit from SCAQMD.

SCAQMD Rule 203 – Permit to Operate

Rule 203 applies to the operation of stationary sources (including gasoline stations) that have the potential to emit air contaminants. The rule prohibits operation of equipment without first obtaining a permit from SCAQMD and requires that operation of the equipment is consistent with the conditions specified in the permit to operate.

SCAQMD Rule 402 – Nuisance

Rule 402 prohibits the discharge of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 – Fugitive Dust

Rule 403 is designed to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. Rule 403, Fugitive Dust prohibits construction activities from generating visible dust in the atmosphere beyond the property line. The rule requires earthmoving activities to use the best available control measures specified in the rule to minimize fugitive dust emissions. Available control measures include but are not limited to: stabilizing disturbed areas with water, using a chemical stabilizer, or

covering an area with a tarp or other suitable cover; and requiring that materials transported off-site to be covered or stabilized with at least 6 inches of freeboard space from the top of the container. These types of dust control actions are required for all projects within the Basin that are capable of generating fugitive dust.

SCAQMD Rule 461 – Gasoline Transfer and Dispensing

Rule 461 requires enhanced vapor recovery systems at gasoline stations. This rule requires equipment that is at least 98 percent efficient at removing vapors from the transfer of gasoline from tanker trucks to underground storage tanks (Phase I) and equipment that is at least 95 percent efficient at recovering gasoline vapors from gasoline pumps when dispensing to vehicles (Phase II). This rule also has equipment testing, reporting and record keeping requirements for the operators of gasoline stations.

SCAQMD Rule 1113 – Architectural Coatings

Rule 1113 limits the volatile organic compounds (VOC) content of paint and other architectural coatings. VOCs are one of the key ingredients in coatings that contribute to ozone formation. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the SCAQMD must comply with the current VOC standards.

SCAQMD Rule 1138 – Control of Emissions from Restaurant Operations

Rule 1138 applies to owners and operators of commercial cooking operations, preparing food for human consumption. The rule requires chain-driven charbroilers to be equipped and operated with a catalytic oxidizer control device to reduce PM and VOC emissions.

SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants

Rule 1401 establishes allowable risk thresholds for permit units that emit Toxic Air Contaminants. Depending on the pollutant, the rule specifies limits for maximum individual cancer risk (MICR), cancer burden, and/or non-cancer acute and chronic Hazard Indices (HI and HC).

2.5 City of San Jacinto

The City of San Jacinto Development Code includes the following air quality regulations which applies to all land uses in the City.

> **Section 17. 300.030 – Air Quality.** Discharge prohibited. The operation of any structure or use shall not directly or indirectly discharge air contaminants (e.g., carbon, dust, fumes, gases, mist, noxious acids, odors, particulate matter, smoke, soot, sulfur compounds, etc.) into the atmosphere that exceed any local, State, or Federal air quality standards or that might be obnoxious or offensive to anyone residing or conducting business either on-site or abutting the site (San Jacinto Development Code, Section 17.300.030.A).
>
> **Chapter 17.350 - Transportation Demand Management.** The purpose of this chapter is to provide regulations to reduce air pollution caused by vehicle trips and vehicle miles traveled. This chapter applies to a new development that generates 50 or more employees and an

existing development with 50 or more employees. All applicable development shall reduce work-related vehicle trips by a least 12 percent from the expected number of trips related to the project, as indicated in the latest edition of the Trip Generation Handbook published by the Institute of Traffic Engineers (ITE). Trip reductions shall be calculated in compliance with standards established by the Southern California Association of Governments (SCAG) and the SCAQMD. Each new development shall include in the development plans a Trip Reduction Plan or shall incorporate facilities as specified in Section 17.350.040 (Trip Reduction Facilities and Methods). The Director shall approve a Trip Reduction Plan before the issuance of any Certificate of Occupancy (San Jacinto Development Code, Chapter 17.350).

3.0 Greenhouse Regulatory Framework

Greenhouse gas (GHG) emissions refer to a group of emissions that have the potential to trap heat in the atmosphere and consequently affect global climate conditions. Scientific studies have concluded that there is a direct link between increased emission of GHGs and long-term global temperature. The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H_2O). CO_2 is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e) and measured in metric tons per year (MT/year).

3.1 National GHG Policies

In 2007, the US Supreme Court in *Massachusetts v. EPA* (Supreme Court Case 05-1120) found that four GHGs, including CO_2, are air pollutants subject to regulation under the CAA. In response, the EPA Administrator signed the Endangerment Finding, which finds six key GHGs threaten the public health and welfare of current and future generations, and the Cause or Contribute Finding, which finds the emission of these GHGs from motor vehicles threatens public health and welfare. These findings established the EPA's authority to set GHG emission standards for vehicles.

Building on Corporate Average Fuel Economy law first passed by Congress in 1975. The fuel economy standards have become more stringent over time. Under the Obama administration, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017

through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium duty passenger vehicles. The final standards will result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20-percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10-percent reduction for gasoline vehicles and a 15-percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10-percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

The Trump administration has proposed freezing fuel economy targets at 2020 levels through 2026, rather than maintaining year-over-year increases.

3.2 California GHG Policies

The Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) is the overarching law that requires the State to set statewide GHG reduction targets. AB 32 first codified California's GHG emissions targets by requiring the state's global warming emissions to be reduced to 1990 levels by 2020 and directed CARB to enforce the statewide cap that began to phase in during 2012. To achieve these goals, CARB has established an emissions cap and developed a Scoping Plan to identify mandatory strategies for reducing statewide GHG emissions. In addition, the California Climate Action Team was formed, which consists of members of various state agencies tasked with identifying strategies to reduce GHG emissions. In 2016, the California Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. Several other bills have been passed as companions to AB 32, such as SB 1368 (electricity generation standards), AB 1493 (Pavley – Clean Car Standards), SB 97 (CEQA analysis for GHGs), SB 375 (Regional Transportation Planning and GHG emissions), California Green Building Standards Code (CALGreen), and other plans to achieve the goals of AB 32. **Table 2** summarizes California's emission targets. Key GHG policies that are relevant to the proposed project are reviewed below.

TABLE 2
CALIFORNIA'S GREENHOUSE GAS EMISSION REDUCTION TARGETS

Target	Authority
By 2010, reduce GHG emissions to 2000 levels. By 2020, reduce GHG emissions to 1990 levels.	Established by Executive Order S-3-05, codified into statute by AB 32
By 2030, reduce GHG emissions to 40 percent below 1990 levels.	Established by Executive Order B-30-15, codified into statute by SB 32
By 2050, reduce GHG emissions to 80 percent below 1990 levels.	Established by Executive Order S-3-05

Scoping Plan

AB 32 required CARB to develop a Climate Change Scoping Plan that describes the approach California will take to reduce GHGs to achieve emission reduction goals, and to update the plan every five years. CARB approved the first Scoping Plan in 2008, and the first update was approved in 2014. The second update was approved by CARB in December 2017. The second update incorporates the interim target of a 40-percent reduction of GHGs by 2030 that was codified through the passing of SB 32 in 2016.

The 2017 Scoping Plan identifies key economic sectors and GHG emission reduction strategies for each sector. The sectors include: 1) Energy, 2) Transportation, 3) Industry, 4) Water, 5) Waste Management, 6) Agriculture, and (7) Natural and Working Lands. The Scoping Plan identifies actions within each sector to meet emission reduction goals. These strategies include: direct regulations; alternative compliance mechanisms, such as a low-carbon fuel standard; monetary and non-monetary incentives, including statewide energy-efficiency initiatives; voluntary actions; and market-based mechanisms such as a cap-and-trade system. These strategies broadly influence how resources are managed in the state to reduce GHG emissions, but do not identify specific criteria to evaluate whether individual development projects comply with the State's strategies. The Scoping Plan does identify measures that can be undertaken by local and regional governments to assist in the attainment of the State's GHG goals. These measures include developing climate action plans, setting emission targets, and integrating sustainable community strategies (SCS) as required by California's Sustainable Communities and Climate Protection Act of 2008. In addition, the 2017 Scoping Plan includes examples of municipal code changes, zoning, changes and general plan/climate action plan policies to assist in GHG reductions on a local level, as well as examples of GHG reduction measures that can be considered for individual development projects. Specifically, the Scoping Plan states:

> Absent conformity with an adequate geographically-specific GHG reduction plan…CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions… To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT [vehicle miles traveled], and direct investments in GHG

reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally (CARB, 2017).

The Scoping Plan suggests that reducing VMT is key to reducing GHG emissions of local development projects and notes that the CEQA Guidelines are being updated to focus the analysis of transportation impacts on VMT. The Scoping Plan references the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA, which provides methods of analysis of transportation impacts, approaches to setting significance thresholds, and includes examples of VMT mitigation under CEQA (CARB, 2017).

California Building Standards – Title 24 and CALGreen

The 2016 California Building Standards Code (Title 24, California Code of Regulations) stipulates energy efficiency requirements in buildings and land use development through Part 6 - California Energy Code, and Part 11 - California Green Building Standards Code (CALGreen). The California Energy Code contains California's Energy Efficiency Standards for Non-residential Buildings and is commonly referred to as "Title 24," which was established in 1978 in response to a legislative mandate to reduce California's energy consumption.

CALGreen was developed to meet the goals of the California Global Warming Solutions Act of 2006, which established a comprehensive program of cost-effective reductions of greenhouse gases (GHG) to 1990 levels by 2020. A voluntary CALGreen Code was published in 2008 and had an effective date of August 2009. The first mandatory measures were adopted in the 2010 triennial code publication, which went into effect in January 2011. CALGreen was developed to: reduce GHG from buildings; promote environmentally responsible, cost-effective, healthier places to live and work; reduce energy and water consumption; and respond to the environmental directives of the administration. CALGreen 2016 identifies mandatory measures to meet these goals, including reduction of indoor water use, reduction of construction waste, organic waste recycling, and facilities for clean air/electric vehicles.

3.3 Local GHG Policies

Subregional Climate Action Plan

Twelve cities in Western Riverside County, including San Jacinto, joined efforts to develop the Subregional Climate Action Plan (Subregional CAP), which sets forth a subregional emissions reduction target and summarizes emissions reduction measures that have been developed at the state, regional and local levels. The Subregional CAP identifies action steps to assist each community to demonstrate consistency with AB 32. The Subregional CAP was finalized by the Western Regional Council of Government in 2014. The Subregional CAP establishes a community-wide emissions reduction target of 15% below 2010 emission levels. CARB and the California Attorney General have determined this approach to be consistent with the state-wide AB 32 goal of reducing emissions to 1990 levels (WRCOG, 2014).

The following applicable measures outlined in the Subregional CAP are applicable to the project:

Measure SR-2	**2013 California Building Energy Efficiency Standards** Mandatory energy efficiency standards for buildings.
Measure SR-4	**HERO Commercial Program** Financing for business owners to make energy efficient, renewable energy, and water conservation improvements.
Measure SR-5	**Utility Programs** Financing for business owners to make energy efficient, renewable energy, and water conservation improvements.
Measure SR-6	**Pavley and Low Carbon Fuel Standard** Requirements for vehicles to use cleaner fuels.
Measure SR-12	**Vehicle Plan and Infrastructure** Facilitate electric vehicle use by providing necessary infrastructure
Measure SR-13	**Construction & Demolition Waste Diversion** Mandatory requirement to divert 50% of construction and demolition waste from the landfill waste stream.
Measure SR-14	**Water Conservation and Efficiency** State requirement to reduce urban per capita water use.
Measure T-1	**Bicycle Infrastructure Improvements** Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.
Measure T-2	**Bicycle Parking** Provide additional options for bicycle parking.
Measure T-3	**End of Trip Facilities** Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.

City of San Jacinto

The City of San Jacinto has not developed an individual climate action plan; instead, the City cooperates with the SCAQMD and WRCOG to develop and implement regional air quality and GHG emission reduction plans. The City has adopted policies to improve air quality through the City's planning and development approval processes. These measures, which are summarized in Section 2.5 above, promote efficient urban development and energy conservation, and as a result these policies also effectively reduce GHG emissions.

4.0 Air Quality Setting

While air quality has dramatically improved over the years, the Basin still exceeds federal public health standards for both ozone and PM and experiences some of the worst air pollution in the nation. The Basin's air pollution problems are a consequence of the combination of emissions from the nation's second largest urban area, meteorological conditions adverse to the dispersion of those emissions, and mountainous terrain surrounding the Basin that traps pollutants as they are pushed inland with the sea breeze.

4.1 Basin Air Quality

The Basin has a nonattainment status of State and Federal Air Quality Standards for Ozone and $PM_{2.5}$, a nonattainment status for State PM_{10} standards, and an attainment status for all other pollutant standards (**Table 3**).

Ozone (O_3) is a photochemical oxidant and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of VOC and NOx in the presence of sunlight. VOC emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NOx are a group of gaseous compounds of nitrogen and oxygen that results from the combustion of fuels. In the Basin, high concentrations of ozone are normally recorded during the late spring and summer months, when more intense sunlight drives enhanced photochemical reactions.

TABLE 3
SOUTH COAST AIR BASIN AIR QUALITY STANDARD ATTAINMENT STATUS

Pollutant	Attainment Status	
	Federal	State
Ozone – 1 hr	N/A	Nonattainment
Ozone – 8 hr	Nonattainment (Extreme)	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Particulate Matter < 10 microns (PM_{10})	Attainment (excluding LA County)	Nonattainment
Particulate Matter < 2.5 microns ($PM_{2.5}$)	Nonattainment (Serious)	Nonattainment
Source: SCAQMD, 2016; California Air Resources Board (CARB), 2018a.		

Ozone can make it more difficult to breathe, cause shortness of breath, coughing and a sore or scratchy throat. Ozone can inflame and damage the airways, and aggravate lung diseases such as asthma,

emphysema, and chronic bronchitis. Long-term exposure to ozone is linked to aggravation of asthma, and is likely to be one of many causes of asthma development. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure.

Particulate matter (also called particle pollution) is a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. Particle pollution is categorized as PM_{10} (inhalable particles with diameters that are generally 10 micrometers and smaller) and $PM_{2.5}$ (fine inhalable particles with diameters that are generally 2.5 micrometers and smaller). Some particulate matter is emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks or fires. Most particles form in the atmosphere as a result of complex reactions of chemicals such as sulfur dioxide and nitrogen oxides, which are pollutants emitted from power plants, industries and automobiles.

The size of particles is directly linked to their potential for causing health problems. Small particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream. Exposure to such particles can affect both your lungs and your heart. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including: premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing. People with heart or lung diseases, children, and older adults are the most likely to be affected by particle pollution exposure. Elevated PM_{10} and $PM_{2.5}$ concentrations can occur in the Basin throughout the year, but occur most frequently in fall and winter.

4.2 Local Air Quality

The SCAQMD identifies 14 General Forecast Areas within the Basin. Each General Forecast Area is made up of one or more Air Monitoring Areas. The project site is located within the Hemet/San Jacinto Valley Monitoring Area, which along with the Perris Valley and Lake Elsinore Monitoring Areas, make up the Hemet/Elsinore Forecast Area. SCAQMD does not maintain any air quality monitoring stations in the Hemet/San Jacinto Valley Monitoring Area. The nearest monitoring stations are in Perris and Lake Elsinore; **Table 4** provides a summary of monitoring data from these stations.

Ozone and particulate matter are the primary pollutants of concern in western Riverside County. These pollutants have exceeded state and/or national standards in recent years. Nitrogen dioxide, carbon monoxide, sulfur dioxide, and lead are monitored in western Riverside County, but the levels have not exceeded state or national standards in recent years (based on available data from 2014 to 2016) (SCAQMD, 2018).

TABLE 4
AIR QUALITY MONITORING DATA

Pollutant Standards	2015	2016	2017
Ozone (Perris)			
Max 1-hour state concentration (ppm)	0.124	0.131	0.120
Number of days above state 1-hour standard	**25**	**23**	**33**
Max 8-hour concentration (ppm) (state/federal) (0.070/0.7 ppm)	0.103 / 0.102	0.099 / 0.098	0.106 / 0.105
Number of days above state/federal 8-hour standard	**50 / 49**	**56 / 55**	**86 / 80**
Inhalable Particulate Matter (PM_{10}) (Perris)			
Max 24-hour concentration ($\mu g/m^3$) (state/federal)	178.0 / 188.0	* / 76.0	* / 75.4
Estimated Number of days above state/federal standard (50/150 $\mu g/m^3$)	**25.7 / 6.6**	* / 0	* / 0
Annual Average (state/federal)	31.4 / 33.1	* / 32.2	* / 32.6
Annual Average exceeded state standard (20 $\mu g/m^3$)?	**Yes**	*	*
Fine particulate matter ($PM_{2.5}$) (Lake Elsinore)			
Max 24-hour concentration ($\mu g/m^3$) (state/federal)	41.7 / *	31.5 / *	27.2 / *
Estimated Number of days above federal standard	*	*	*
Annual Average (state/federal)	* / *	9.7 / *	11.2 / *
Annual Average exceeded state/federal standard (12 $\mu g/m^3$)?	*	No	No

Notes: Insufficient or no data available to determine value.

Source: CARB, 2018b.

5.0 Methodology and Modeling Assumptions

5.1 Regional Air Quality and GHG Emissions

CalEEMod

Regional construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod utilizes widely accepted methodologies for estimating emissions combined with default data that can be used when site-specific information is not available. Sources of these methodologies and default data include but are not limited to the EPA AP-42 emission factors, CARB vehicle emission models, studies commissioned by California agencies such as the California Energy Commission and CalRecycle (CAPCOA, 2017). Default data was used, with the following exceptions.

- Emission factors for electricity use were updated based on Southern California Edison (SCE) 2020 standards.
- Haul trip length for the import of fill during the grading phase of construction was modified to five miles. Fill will be sourced from the Tribe's Reservation, which is located approximately one-half mile east of the project site.

As described in Section 1.2, the Tribe is currently seeking to develop the multi-tenant retail building on Parcel 1, and the remaining parcels will be developed in one or more following phases. To simplify the analysis of construction emissions, it was assumed that the entire 4-parcel project site would be constructed in 2019-2020. This is a conservative assumption, as it may overstate peak day and annual emissions; actual emissions may be spread over a longer time frame with fewer construction activities occurring concurrently. The modeling of emissions assumes compliance with applicable SCAQMD rules, including Rule 403, fugitive dust.

Gasoline Dispensing Emissions

CalEEMod does not quantify emissions of VOC associated with gasoline dispensing facilities. These emissions have been calculated separately using total organic gas (TOG) emission factors developed by CARB (CARB, 2013). These factors incorporate Phase I and Phase II enhanced vapor recovery (EVR) requirements, which have significantly reduced emissions from the transfer of gasoline. CARB's definition of TOG includes methane and chlorofluorocarbons (CFCs) that are not included in the EPA's definition of VOC. To simplify the analysis, TOG emissions have been used as a proxy for VOC emissions. As a result, the VOC emissions associated with operation of the proposed service station would be less than that reported as TOG emissions.

5.2 Localized Air Quality Emissions

In addition to addressing emissions on a regional basis, SCAQMD has developed methodology to address the potential for project emissions to result in elevated concentrations of pollutants that exceed ambient air quality standards. The SCAQMD Localized Significance Threshold (LST) Methodology (SCAQMD, 2008a) uses tables of emission thresholds based on the project's location and site acreage to determine the significance of emissions for CEQA purposes. The LST Methodology is only applicable to

on-site emissions of NOx, CO, PM_{10}, and $PM_{2.5}$. The emission thresholds represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The determination of site acreage is a key variable used in the LST Methodology and may be the actual site acreage, or the maximum number of acres disturbed on the peak day. The LST Methodology provides thresholds for 1, 2 and 5-acre sites. For projects that disturb more than 5 acres a day, SCAQMD suggests completing site-specific dispersion modeling (SCAQMD, 2008a).

Consistent with SCAQMD guidance (2011), CalEEMod was used to estimate on-site construction emissions, including assumptions on the type and number of off-road equipment. CalEEMod also provides a maximum daily soil disturbance area possible for each type of equipment. Based on the CalEEMod modeling results, the peak equipment usage and acreage affected would be during the initial site preparation phase when four tractors/loaders/backhoes, three dozers, one scraper and one grader are assumed, for a total of nine pieces of equipment. The acreage affected for each piece of equipment per 8-hour day is 0.5 acre, except for scrapers, which is 1 acre. Accordingly, it is assumed that acres disturbed would be 5 acres in one day. The 5-acre LST is used as the appropriate threshold. Based on the closest receptor distance of approximately 40 feet (12 meters), a receptor distance of 25 meters was used, which is the closest distance provided by the LST Methodology and is recommended by SCAQMD for sites where receptors are closer than 25 meters.

5.3 Health Risk Assessment

A health risk assessment (HRA) was completed for the proposed service station using SCAQMD's Rule 1401 Calculator that was developed to assist in determining the cancer and non-cancer health effects pursuant to Rule 1401 Risk Assessment Procedures for Rules 1401 and 212. The 1401 Calculator provides an estimation of Maximum Individual Cancer Risk (MICR) associated with benzene, the air toxic responsible for 84 percent of the cancer risks at gasoline service stations (SCAQMD, 2017). Benzene along with other TACs, including ethylbenzene, and naphthalene are emitted during the transfer of gasoline from tanker trucks to underground storage tanks, venting of underground storage tanks, and refueling vehicles (including spillage). All service stations are required to have vapor recovery systems to control gasoline emissions, which are effective at removing 98 percent of Phase I emissions and 95 percent of Phase II emissions. The 1401 Calculator addresses the remaining vapors that escape during gasoline transfer. The method used in the 1401 Calculator are consistent with SCAQMD's Risk Assessment Procedures (Version 8.1), which incorporates the OEHHA's 2015 Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.

Key variables in the 1401 Calculator are annual throughput (the volume of gasoline sold) and the distance of the service station from the closest residential and commercial development. The annual throughput was estimated using data provided by the California Energy Commissions which publishes the Retail Fuel Outlet Annual Report (CEC-A15). Data from 2017 indicates that the average service station in Riverside County sold 1.8 million gallons per year (CEC, 2018). Based on this data and information provided by the applicant, it is conservatively assumed that the service station would have an annual throughput of 4 million gallons. The service station is proposed for Parcel 8 at the corner of

Ramona Expressway and East Main Street. The pump islands would be located at least 430 feet (130 meters) from the nearest homes located west of the project site. The nearest commercial building would be the proposed convenience store located approximately 60 feet (20 meters) from the nearest pump island.

6.0 Thresholds of Significance

6.1 SCAQMD Air Quality Thresholds

SCAQMD has established quantitative thresholds that are used to evaluate a project's regional air quality impacts (SCAQMD, 1993). The significance thresholds for construction and operation activities are listed in **Table 5**.

TABLE 5
SOUTH COAST AIR BASIN REGIONAL AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	**Mass Daily Thresholds**	
	Construction (lbs/day)	**Operation** (lbs/day)
Nitrogen Oxides (NOx)	100	55
Volatile Organic Compounds (VOC)	75	55
Particulate Matter < 10 microns (PM_{10})	150	150
Particulate Matter < 2.5 microns ($PM_{2.5}$)	55	55
Sulfur Oxides (SOx)	150	150
Carbon Monoxide (CO)	550	550
Lead	3	3
Source: SCAQMD, 2015.		

In addition to regional emissions, SCAQMD also provides LST methodology to address the potential for localized construction emissions of NOx, CO, PM_{10}, and $PM_{2.5}$. to exceed ambient air quality standards. The methodology is outlined in Section 5.2 above. The LST uses tables of emission thresholds calculated by SCAQMD based on a project's location and site acreage (SCAQMD, 2008a). **Table 6** summarizes the LST emission thresholds for projects in Source Receptor Area 28 (Hemet/San Jacinto) where construction would disturb five acres per day.

TABLE 6
LOCALIZED SIGNIFICANCE THRESHOLD FOR AMBIENT AIR QUALITY

Pollutant	Mass Daily Thresholds	
	Construction (lbs/day)	**Operation** (lbs/day)
Nitrogen Oxides (NOx)	371	371
Particulate Matter < 10 microns (PM_{10})	13	4
Particulate Matter < 2.5 microns ($PM_{2.5}$)	8	2
Carbon Monoxide (CO)	1,965	1,965
Source: SCAQMD, 2008a.		

SCAQMD has established significance thresholds for TACs based on cancer and hazard risks. A Maximum Incremental Cancer Risk (MICR) of less than or equal to 10 in a million is considered to be less than significant. Additionally, a cancer burden greater than 0.5 excess cancer cases in areas with an incremental increase greater than one in one million individuals is considered significant

6.2 SCAQMD GHG Thresholds

SCAQMD has released draft guidance regarding interim CEQA GHG significance thresholds. In October 2008, SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial and residential projects that emit greater than 3,000 metric tons of CO_2e ($MTCO_2e$) per year. With this approach, commercial and residential projects that would emit less than 3,000 $MTCO_2e$ would be assumed to have a less-than-significant impact. While SCAQMD has yet to formally adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects), many local agencies, including the City of San Jacinto, use the SCAQMD's screening threshold as a significance threshold.

It should be noted that the SCAQMD's screening threshold for commercial projects is intended for long-term operational GHG emissions. SCAQMD has developed guidance for the determination of the significance of GHG construction emissions that recommends that total emissions from construction be amortized over 30 years (lifespan of a typical project) and added to operational emissions and then compared to the screening threshold of 3,000 $MTCO_2e$ (SCAQMD, 2008b).

7.0 Air Quality Impact Analysis

7.1 Construction Emissions

Regional Construction Emissions

The analysis of regional emissions addresses the "total" amount of emissions generated by a project – both on-site and off-site. During construction, on-site emission include operation of off-road (heavy

duty) construction equipment such as excavators and graders, and off-site emissions include material hauling and worker trips. During operation, on-site emissions include area (landscaping equipment) and energy (natural gas) emissions, and off-site mobile (vehicle trips). These emissions are compared against significance thresholds set by SCAQMD (described in Section 6.1).

Construction of the proposed project would result in the temporary generation of emissions resulting from excavation, grading, material hauling, and worker trips. Fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when vehicles and equipment disturb soil and other friable materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NOx emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and asphalt paving are the dominant sources of VOC emissions. Such air quality effects generally would be temporary and localized.

Construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. The detailed output model files generated for this analysis are included in **Appendix A.** The estimated construction emissions are summarized in **Table 7**.

TABLE 7
ESTIMATED TOTAL CONSTRUCTION EMISSIONS

Construction Phase	**Maximum Day Emissions** (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	6.0	65.2	33.0	0.06	11.5	7.4
Grading	3.0	41.2	19.4	0.1	4.9	3.0
Building Construction	3.2	26.9	23.7	0.05	2.9	1.7
Paving	2.2	14.1	15.3	0.02	0.9	0.7
Architectural Coating	19.1	1.8	2.8	0.01	0.4	0.2
Maximum Phase Overlap Emissions*	24.5	42.8	41.8	0.08	4.2	2.6
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No
Notes: * Maximum Phase Overlap Emissions include phases of construction that have the potential to overlap: building construction, paving and architectural coating. Source: CalEEMod output tables, Appendix A.						

The project would not emit pollutants during construction that would exceed significance thresholds set by SCAQMD; the project would result in less-than-significant impacts.

Localized Construction Emissions

As shown in **Table 8**, maximum on-site emissions would not exceed the significance thresholds established by SCAQMD (defined in Section 6.1). The project would result in less-than-significant impacts.

TABLE 8
LOCALIZED CONSTRUCTION EMISSIONS

Phase	Pollutant Emissions (lbs/day)			
	NOx	**CO**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	65.1	32.0	11.2	7.3
Grading	28.3	16.3	4.4	2.8
Building Construction	21.1	17.2	1.3	1.2
Paving	14.1	14.7	0.8	0.7
Architectural Coating	1.7	1.8	0.1	0.1
SCAQMD LST Threshold	371	1,965	13	8
Exceeds Threshold?	No	No	No	No
Source: CalEEMod output tables, Appendix A; SCAQMD, 2011.				

Odors during Construction

Potential sources that may emit odors during construction activities include the operation of diesel trucks and heavy equipment and the application of materials such as paint and asphalt pavement. Odors from these sources typically disperse in the atmosphere and would not be concentrated at the property line where sensitive receptors could be impacted. The objectionable odors that may be produced during the construction process would be short-term in nature. In addition, SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction.

Construction Toxic Air Contaminant Emissions

Construction activities would result in short-term emissions of diesel particulate matter (diesel PM) from off-road heavy-duty diesel equipment exhaust and diesel-fueled haul trucks. Diesel PM was identified as a TAC by CARB in 1998. Health risks associated with exposure of sensitive receptors to TAC emissions are typically based on the concentration of a substance or substances in the environment (dose) and the duration of exposure to the substance(s). Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level. Thus, the risks estimated for a maximally

exposed individual are higher if a fixed exposure occurs over a long period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period. Project construction, however, would occur over a much shorter period. The site preparation and grading phases, which would generate most of the diesel PM on the site, would be limited to about four weeks. Use of off-road heavy-duty diesel equipment would be temporary, and diesel PM emissions would disperse rapidly with distance from the source. As shown in **Table 7**, the on-site emissions of PM would be below thresholds identified by SCAQMD to keep ambient air quality within State and Federal standards. Because TAC emissions would be limited in duration and amount, the project would result in a less-than-significant impact.

7.2 Operational Emissions

Regional Operational Emissions

The analysis of regional emissions addresses the "total" amount of emissions generated by a project – both on-site and off-site. During operation, on-site emissions include area (landscaping equipment) and energy (natural gas) emissions, and off-site mobile (vehicle trips). These emissions are compared against significance thresholds set by SCAQMD (defined in Section 6.1).

Operational emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. The detailed output model files generated for this analysis are included in **Appendix A.** The estimated operational emissions are summarized in **Table 9**.

TABLE 9
ESTIMATED TOTAL OPERATIONAL EMISSIONS

Emission Source	**Emissions** (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
Area Source	0.85	0.00	0.05	0.00	0.00	0.00
Gasoline Dispensing	5.43	-	-	-	-	-
Energy	0.05	0.46	0.38	0.00	0.03	0.03
Mobile	12.75	47.35	82.56	0.19	12.36	3.45
Total	19.08	47.80	82.99	0.20	12.40	3.48
Significance Threshold	55	55	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Source: CalEEMod, Appendix A. TOG Emissions for Gasoline Dispensing Facility, Appendix B.

Note: Gasoline dispensing emissions are reported in Total Organic Gases (TOG), VOC emissions are a subset of TOG emissions; as a result, the gasoline dispensing VOC emissions would be less than shown.

Operational emissions would not exceed the significance thresholds set by SCAQMD; the project would result in less-than-significant impacts.

Localized Operational Emissions

Table 10 summarizes the project emissions compared with thresholds identified in SCAQMD's LST Methodology in Section 6.1. CalEEMod does not separate on-site and off-site operational emissions. While all area and energy emissions would occur on the project site, most of the mobile emissions would occur off the project site. To account for vehicle emissions that would occur on the project site, 10 percent of mobile emissions are assumed to occur on the project site. This is considered to be a worst-case analysis because average trip lengths are assumed to range from 6.9 to 16.6 miles. As shown in Table 10, project emissions would not exceed SCAQMD thresholds and project impacts would be less than significant.

TABLE 10
LOCALIZED OPERATIONAL EMISSIONS

Emission Sources	Pollutant Emissions (lbs/day)			
	NOx	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area	0.00	0.05	0.00	0.00
Energy	0.46	0.38	0.03	0.03
Mobile	4.73	8.26	1.24	0.35
Total On-site Emissions	5.19	8.69	1.27	0.38
SCAQMD LST Threshold	371	1,965	4	2
Exceeds Threshold?	No	No	No	No
Source: CalEEMod, Appendix A; SCAQMD, 2011.				

Carbon Monoxide Hotspots

Vehicles emit CO through the combustion of gasoline and are the primary source of CO in the South Coast Air Basin. Traffic-congested roadways and intersections are the primary source of high localized CO concentrations or "hotspots."

In the SCAQMD's 1993 CEQA Air Quality Handbook, SCAQMD suggests that localized CO impacts be evaluated at intersections due to increases in project-related off-site mobile sources. The SCAQMD handbook recommends performing a localized CO impact analysis for intersections that change from level of service (LOS) C to D because of the project and for all intersections rated D or worse where the project increases the volume-to-capacity ratio by 2 percent or more.

When the SCAQMD released the 1993 Handbook, the Basin was designated nonattainment under the state and federal standards for CO. The concern was that CO hotspots had the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Since then CO emissions have significantly declined, and the Basin has been in attainment of federal CO standards since 2002. Exhaust standards, cleaner burning fuels, and motor vehicle inspection and maintenance programs have all contributed to the reduced CO emissions.

Recent SCAQMD monitoring of CO concentrations have included near-road monitoring sites next to Interstate 5 in Anaheim and Interstate 10 in Ontario. Data from these sites from 2016 show a maximum one-hour concentration of 3.7 and 1.7 ppm respectively. The highest recorded one-hour concentration in the Basin was 4.4 ppm at the South Central Los Angeles County. The highest one-hour concentration recorded at the nearest monitoring station to the project site (Elsinore Valley) was 1.2 ppm. These CO concentrations are significantly lower than the one-hour state standard of 20 ppm.

Based on the Basin's attainment of CO standards and reported CO concentrations in more urban areas of the Basin that are well below the standards, it is expected that CO concentrations in the project area with operation of the project would remain well below the state and federal standards. The project would result in a less-than-significant impact.

Operation Toxic Air Contaminant Emissions

Operation of the proposed service station would release TACs including benzene, ethylbenzene, toluene, xylenes, and naphthalene from gasoline vapors. The service station would be required to have an enhanced vapor recovery system that is effective at removing 98 percent of Phase I emissions and 95 percent of Phase II emissions. A health risk assessment (HRA) was completed for the proposed service station using SCAQMD's Rule 1401 Calculator that was developed to assist in determining the cancer and non-cancer health effects of facilities emitting TACs (**Appendix C**). The calculation indicates an MICR of 1.373 for a residential receptor and 1.152 for a commercial receptor, these values are below the SCAQMD's significance threshold of 10 in a million. The calculation also indicates that chronic and acute hazard risks are negligible.

Odors during Operation

Operation of the project would include two drive-thru restaurants and other retail establishments. Odors generated on the site would be primarily associated with exhaust fumes from cooking food, with charbroilers being the most significant source. SCAQMD Rule 1138 requires restaurants with chain-driven charbroilers to install odor-reducing equipment. Garbage collection areas located near the western border of the project site, would also have the potential to generate foul odors. Good housekeeping practices would be sufficient to prevent nuisance odors. In addition, SCAQMD Rule 402 (Nuisance) would limit potential objectionable odor impacts. With compliance with SCAQMD rules, construction and operation of the project would result in less-than-significant impacts.

8.0 Greenhouse Gas Impacts

8.1 Greenhouse Gas Emissions

Construction of the project would emit GHG emissions through the combustion of fossil fuels by heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the site. Emissions of GHGs were calculated using CalEEMod (Version 2016.3.2) for each year of construction of the project. As shown in **Table 11**, total construction emissions over the entire construction period would be 638 MT CO_2e. Consistent with SCAQMD guidance, the construction emissions are amortized over 30 years. Using this approach, the proposed project's construction emissions would be 21 MT CO_2e per year.

TABLE 11
ESTIMATED GREENHOUSE GAS EMISSIONS

Source	**CO_2e Emissions** (MT/Year)	
Construction		
2019	558	
2020	80	
Total	638	
Total amortized over 30 years		21
Operation		
Area		0.01
Energy		252
Mobile		2,318
Waste		13
Water		18
Total Operational Emissions		2,601
Total Project Emissions		2,622
SCAQMD Screening Threshold		3,000
Exceeds Screening Threshold?		No
CalEEMod, Appendix A		

The proposed development would also result in operational GHG emissions. A variety of sources are considered in estimating CO_2e emissions. The largest source is 'mobile' which consists of vehicle trips of business patrons and employees, followed by 'energy' which includes emissions associated with electricity and natural gas use. Other sources include 'area,' which accounts for landscape equipment, and consumer products; 'waste,' which accounts for emissions associated with disposal of solid waste in landfills, and 'water,' which accounts for energy associated with the delivery of potable water and the treatment of wastewater. The estimated operational-related emissions of CO_2e for source are summarized in Table 11. With amortized construction-period GHG emissions and annual operational emissions, the proposed project would be responsible for the generation of 2,622 MT CO_2e. Project CO_2e emissions would be less than the SCAQMD screening threshold; the project would have a less-than-significant impact.

8.2 Consistency with Greenhouse Gas Plans and Policies

Scoping Plan

The Scoping Plan provides the overall strategy for meeting GHG emission reduction goals, implementation primarily takes the form of source specific regulations adopted by State agencies, such as CARB and the California Energy Commission. At the local level, the Scoping Plan identifies measures that can be undertaken by local and regional governments to assist in the attainment of the State's GHG goals. These measures include developing climate action plans, setting emission targets, and integrating sustainable community strategies (SCS). The Scoping Plan also states that reducing VMT is key to reducing GHG emissions of local development projects. The analysis of the project's consistency with the Scoping Plan focuses on the project's consistency with the Subregional Climate Action Plan and VMT.

Subregional Climate Action Plan

The City of San Jacinto is a participating member of the Subregional CAP and has committed to implementing measures identified in the Subregional CAP. CARB and the California Attorney General have determined this approach to be consistent with the state-wide AB 32 goal of reducing emissions to 1990 levels by 2020. The project's consistency with applicable measures of the Subregional CAP is provided in **Table 12**. The proposed project is consistent with all applicable measures identified in the Subregional CAP.

TABLE 12
SUBREGIONAL CAP CONSISTENCY ANALYSIS

Subregional CAP Measures	Consistency Analysis
Measure SR-2 **2013 California Building Energy Efficiency Standards** Mandatory energy efficiency standards for buildings.	**Consistent.** The project is required to comply with the 2016 California Building Standards Code (Title 24, California Code of Regulations), including 2016 CALGreen standards.

Subregional CAP Measures	Consistency Analysis
Measure SR-4 **HERO Commercial Program** Financing for business owners to make energy efficient, renewable energy, and water conservation improvements.	**Consistent.** This program is available to the retail business owners.
Measure SR-5 **Utility Programs** Financing for business owners to make energy efficient, renewable energy, and water conservation improvements.	**Consistent.** This program is available to the retail business owners.
Measure SR-6 **Pavley and Low Carbon Fuel Standard** Requirements for vehicles to use cleaner fuels.	**Consistent.** This is a State requirement on fuel providers to ensure that the mix of fuel they sell produces a reduced amount of global warming emissions. Fuel sold on the project site is required to meet this standard, and the emissions of vehicles accessing the site would also be reduced.
Measure SR-12 **Vehicle Plan and Infrastructure** Facilitate electric vehicle use by providing necessary infrastructure	**Consistent.** The project incorporates electric vehicle parking spaces, and facilities to allow for the future installation of electric vehicle supply equipment.
Measure SR-13 **Construction & Demolition Waste Diversion** Mandatory requirement to divert 50% of construction and demolition waste from the landfill waste stream.	**Consistent.** The project would be required to meet the 50% solid waste diversion standard during construction.
Measure SR-14 **Water Conservation and Efficiency** State requirement to reduce urban per capita water use.	**Consistent.** The project is required to comply with the 2016 CALGreen standards, which include water conservation requirements.

Subregional CAP Measures	Consistency Analysis
Measure T-1 **Bicycle Infrastructure Improvements** Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.	**Consistent.** The project includes the development of a Class I bike lane along Ramona Expressway.
Measure T-2 **Bicycle Parking** Provide additional options for bicycle parking.	**Consistent.** The site plan includes bicycle racks and long-term parking spaces consistent with CALGreen requirements.
Measure T-3 **End of Trip Facilities** Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	**Consistent.** Consistent with San Jacinto Development Code Chapter 17.350, the project is required to develop and implement a Transportation Demand Management Plan, which requires facilities to reduce work-related vehicle trips.

Vehicle Miles Travelled

Approximately 88 percent of the project's GHG emissions would be mobile emissions associated with vehicle traffic. Likewise, the Scoping Plan identifies that the transportation sector contributes 37 percent of the state's total CO_2e emissions – more than any other sector. To meet emission reduction goals, the Governor's Office of Planning and Research (OPR) has identified three major means of reducing greenhouse gas emissions from the transportation sector: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle travel. CARB has identified a strategy for meeting the emission reduction targets within its 2016 Mobile Source Strategy. CARB determined that it will not be possible to achieve the State's 2030 and post-2030 emissions goals without reducing VMT growth. Consistent with these efforts, OPR has proposed revisions to the CEQA Guidelines to analyze VMT in the determination of project-related transportation impacts. OPR has also issued its Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR, 2018) to guide the analysis of VMT. With regards to analyzing retail projects, the Technical Advisory states:

> By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact (OPR, 2018).

OPR also suggests that contrary to local-serving retail developments, regional-serving retail development can lead to the substitution of longer trips for shorter ones, and further suggests that stores larger than 50,000 square feet may be considered regional-serving (OPR, 2018).

Consistent with this suggested approach, the proposed project, which provides a range of retail establishments with individual rental spaces of 3,200 square feet or less, is considered a local-serving development. The development's location has been selected to serve the adjacent neighborhood while also capturing pass-by traffic on Ramona Expressway and Main Street/Lake Park Drive – especially traffic generated by the Tribe's new casino under construction nearby. As such, the project is expected to improve the proximity of needed retail services and thereby reduce VMT. In addition, the project is required by Chapter 17.350 of the City of San Jacinto Development Code to develop and implement a Transportation Demand Management Plan. The Tribe would be required to have a Trip Reduction Plan that reduces work-related trips by at least 12 percent.

Conclusion

The project would not exceed SCAQMD's screening threshold of 3,000 MT CO_2e for GHG emissions. The project would comply with all applicable federal, state, and local regulations that regulate energy use and GHG emissions. Specifically, the project will comply with the Subregional CAP. However, the project is consistent with plans and policies that have been adopted to meet the state's emission reduction goals. Likewise, the proposed project would not conflict with any applicable plan, policy, or regulation of adopted for the purpose of reducing the emissions of GHGs, including the Scoping Plan. Therefore, the project's impact related to GHG emission reduction plans, policies, and regulations would be less than significant.

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Appendix A

CalEEMod output tables

Luiseno Village Retail Center

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	142.40	1000sqft	3.27	142,400.00	0
Parking Lot	272.00	Space	2.45	108,800.00	0
Fast Food Restaurant with Drive Thru	3.20	1000sqft	0.07	3,200.00	0
Fast Food Restaurant with Drive Thru	2.80	1000sqft	0.06	2,800.00	0
Convenience Market With Gas Pumps	3.05	1000sqft	0.07	3,050.00	0
Regional Shopping Center	23.94	1000sqft	0.55	23,940.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	532.1	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility CO2, CH4, N20 intensity factors updated to SCE 2020 standards.

Land Use - 23,940 sqft of retail space, one fast food restaurant at 3,200 sqft, one fast food restaurant at 2,800 sqft, 3,048 sqft convenience store with 12 gas pumps and car wash. 251,165 sqft of parking area and drive isles.

Construction Phase - No Demolition Required. Assumes entire 4-parcel site under construction in a single phase during 2019-2020.

Trips and VMT - Source of grading fill will be from the Soboba Reservation, less than 5 miles from the project site.

Demolition - No demolition required.

Grading - 13,831 cy of import based on grading plan. Project site is 9.5 acres.

Vehicle Trips - No edits to default values.

Energy Use -

Land Use Change - Existing site 9.46 acres of grassland.

Sequestration - Minimum of 67 Trees based on preliminary landscaping plan.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation - LUT-3: residential, retail, park within 1/4 mile. LUT-4: 0.5 mile to job center (Soboba casino/hotel). LUT-5: 2.1 mile to transit station. SDT-1 on-site pedetrian facilities connected to off-site facilities.

Mobile Commute Mitigation - TRT-2: Transportation Demand Management required by City Code Chapter 17.350.

Energy Mitigation -

Water Mitigation - Reduced water use per CalGreen 2016 standards.

Waste Mitigation - Solid waste disposal of 75% with AB 341 compliance.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	10.00	9.50
tblGrading	MaterialImported	0.00	13,831.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	702.44	532.1
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblSequestration	NumberOfNewTrees	0.00	67.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00

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					
2019	0.3738	3.4396	2.7332	6.1400e-003	0.3263	0.1645	0.4908	0.1293	0.1542	0.2835	0.0000	555.6509	555.6509	0.0879	0.0000	557.8479
2020	0.2452	0.4420	0.4387	8.9000e-004	0.0223	0.0219	0.0443	6.0100e-003	0.0205	0.0265	0.0000	79.4986	79.4986	0.0146	0.0000	79.8623
Maximum	**0.3738**	**3.4396**	**2.7332**	**6.1400e-003**	**0.3263**	**0.1645**	**0.4908**	**0.1293**	**0.1542**	**0.2835**	**0.0000**	**555.6509**	**555.6509**	**0.0879**	**0.0000**	**557.8479**

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					
2019	0.3738	3.4396	2.7332	6.1400e-003	0.2402	0.1645	0.4048	0.0834	0.1542	0.2376	0.0000	555.6506	555.6506	0.0879	0.0000	557.8476
2020	0.2452	0.4420	0.4387	8.9000e-004	0.0223	0.0219	0.0443	6.0100e-003	0.0205	0.0265	0.0000	79.4986	79.4986	0.0146	0.0000	79.8622
Maximum	**0.3738**	**3.4396**	**2.7332**	**6.1400e-003**	**0.2402**	**0.1645**	**0.4048**	**0.0834**	**0.1542**	**0.2376**	**0.0000**	**555.6506**	**555.6506**	**0.0879**	**0.0000**	**557.8476**

	ROG	NOx	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**	**24.67**	**0.00**	**16.08**	**33.91**	**0.00**	**14.80**	**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)
2	**12-13-2018**	**3-12-2019**	0.5766	0.5766
3	**3-13-2019**	**6-12-2019**	0.9794	0.9794
4	**6-13-2019**	**9-12-2019**	0.9852	0.9852
5	**9-13-2019**	**12-12-2019**	0.9773	0.9773
6	**12-13-2019**	**3-12-2020**	0.7408	0.7408
7	**3-13-2020**	**6-12-2020**	0.1120	0.1120
		Highest	0.9852	0.9852

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	0.1548	5.0000e-005	5.7500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Energy	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	250.9712	250.9712	8.3600e-003	3.1700e-003	252.1248
Mobile	1.6786	7.3855	14.3478	0.0386	2.7716	0.0411	2.8128	0.7427	0.0385	0.7812	0.0000	3,563.7146	3,563.7146	0.2298	0.0000	3,569.4602
Waste						0.0000	0.0000		0.0000	0.0000	20.9933	0.0000	20.9933	1.2407	0.0000	52.0101
Water						0.0000	0.0000		0.0000	0.0000	1.2120	15.6038	16.8159	0.1251	3.0900e-003	20.8639
Total	**1.8426**	**7.4689**	**14.4235**	**0.0391**	**2.7716**	**0.0475**	**2.8191**	**0.7427**	**0.0449**	**0.7876**	**22.2054**	**3,830.3008**	**3,852.5061**	**1.6040**	**6.2600e-003**	**3,894.4708**

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	0.1548	5.0000e-005	5.7500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Energy	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	250.9712	250.9712	8.3600e-003	3.1700e-003	252.1248
Mobile	1.5418	6.3377	10.9005	0.0250	1.6198	0.0276	1.6474	0.4340	0.0258	0.4598	0.0000	2,313.5663	2,313.5663	0.1746	0.0000	2,317.9307
Waste						0.0000	0.0000		0.0000	0.0000	5.2483	0.0000	5.2483	0.3102	0.0000	13.0025
Water						0.0000	0.0000		0.0000	0.0000	1.0230	13.7308	14.7538	0.1056	2.6100e-003	18.1725
Total	**1.7057**	**6.4211**	**10.9762**	**0.0255**	**1.6198**	**0.0339**	**1.6537**	**0.4340**	**0.0321**	**0.4662**	**6.2713**	**2,578.2794**	**2,584.5507**	**0.5988**	**5.7800e-003**	**2,601.2423**

	ROG	NOx	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	**7.43**	**14.03**	**23.90**	**34.72**	**41.56**	**28.58**	**41.34**	**41.56**	**28.40**	**40.81**	**71.76**	**32.69**	**32.91**	**62.67**	**7.67**	**33.21**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	47.4360
Vegetation Land Change	-40.7726
Total	**6.6634**

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	2/4/2019	2/15/2019	5	10	
2	Grading	Grading	2/18/2019	3/15/2019	5	20	
3	Building Construction	Building Construction	3/18/2019	1/31/2020	5	230	
4	Paving	Paving	2/3/2020	2/28/2020	5	20	
5	Architectural Coating	Architectural Coating	3/2/2020	3/27/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.5

Acres of Paving: 5.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 49,485; Non-Residential Outdoor: 16,495; Striped Parking Area: 15,072 (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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,729.00	14.70	6.90	5.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

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	4.3000e-004	3.5000e-004	3.7600e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9182	0.9182	3.0000e-005	0.0000	0.9189
Total	**4.3000e-004**	**3.5000e-004**	**3.7600e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9182**	**0.9182**	**3.0000e-005**	**0.0000**	**0.9189**

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0407**	**0.0120**	**0.0526**	**0.0223**	**0.0110**	**0.0333**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

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	4.3000e-004	3.5000e-004	3.7600e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9182	0.9182	3.0000e-005	0.0000	0.9189
Total	**4.3000e-004**	**3.5000e-004**	**3.7600e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9182**	**0.9182**	**3.0000e-005**	**0.0000**	**0.9189**

3.3 Grading - 2019

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					0.0660	0.0000	0.0660	0.0338	0.0000	0.0338	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0258	0.2835	0.1629	3.0000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	26.6423	26.6423	8.4300e-003	0.0000	26.8530
Total	**0.0258**	**0.2835**	**0.1629**	**3.0000e-004**	**0.0660**	**0.0140**	**0.0800**	**0.0338**	**0.0129**	**0.0466**	**0.0000**	**26.6423**	**26.6423**	**8.4300e-003**	**0.0000**	**26.8530**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1500e-003	0.1295	0.0226	2.3000e-004	3.7300e-003	2.9000e-004	4.0200e-003	1.0200e-003	2.8000e-004	1.3000e-003	0.0000	22.8201	22.8201	2.4100e-003	0.0000	22.8804
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.8000e-004	6.2600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5304	1.5304	5.0000e-005	0.0000	1.5316
Total	**3.8700e-003**	**0.1301**	**0.0288**	**2.5000e-004**	**5.3800e-003**	**3.0000e-004**	**5.6800e-003**	**1.4600e-003**	**2.9000e-004**	**1.7500e-003**	**0.0000**	**24.3505**	**24.3505**	**2.4600e-003**	**0.0000**	**24.4120**

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					0.0297	0.0000	0.0297	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0258	0.2835	0.1629	3.0000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	26.6422	26.6422	8.4300e-003	0.0000	26.8530
Total	**0.0258**	**0.2835**	**0.1629**	**3.0000e-004**	**0.0297**	**0.0140**	**0.0437**	**0.0152**	**0.0129**	**0.0281**	**0.0000**	**26.6422**	**26.6422**	**8.4300e-003**	**0.0000**	**26.8530**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1500e-003	0.1295	0.0226	2.3000e-004	3.7300e-003	2.9000e-004	4.0200e-003	1.0200e-003	2.8000e-004	1.3000e-003	0.0000	22.8201	22.8201	2.4100e-003	0.0000	22.8804
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.8000e-004	6.2600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5304	1.5304	5.0000e-005	0.0000	1.5316
Total	**3.8700e-003**	**0.1301**	**0.0288**	**2.5000e-004**	**5.3800e-003**	**3.0000e-004**	**5.6800e-003**	**1.4600e-003**	**2.9000e-004**	**1.7500e-003**	**0.0000**	**24.3505**	**24.3505**	**2.4600e-003**	**0.0000**	**24.4120**

3.4 Building Construction - 2019

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	0.2444	2.1817	1.7765	2.7900e-003		0.1335	0.1335		0.1255	0.1255	0.0000	243.3328	243.3328	0.0593	0.0000	244.8148
Total	**0.2444**	**2.1817**	**1.7765**	**2.7900e-003**		**0.1335**	**0.1335**		**0.1255**	**0.1255**	**0.0000**	**243.3328**	**243.3328**	**0.0593**	**0.0000**	**244.8148**

3.4 Building Construction - 2019

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	0.0193	0.5696	0.1453	1.2400e-003	0.0307	3.7300e-003	0.0344	8.8500e-003	3.5600e-003	0.0124	0.0000	119.7757	119.7757	8.4000e-003	0.0000	119.9858
Worker	0.0583	0.0465	0.5057	1.3700e-003	0.1329	1.0600e-003	0.1339	0.0353	9.8000e-004	0.0363	0.0000	123.5471	123.5471	3.8700e-003	0.0000	123.6440
Total	**0.0776**	**0.6161**	**0.6509**	**2.6100e-003**	**0.1635**	**4.7900e-003**	**0.1683**	**0.0441**	**4.5400e-003**	**0.0487**	**0.0000**	**243.3228**	**243.3228**	**0.0123**	**0.0000**	**243.6297**

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	0.2444	2.1817	1.7765	2.7900e-003		0.1335	0.1335		0.1255	0.1255	0.0000	243.3326	243.3326	0.0593	0.0000	244.8145
Total	**0.2444**	**2.1817**	**1.7765**	**2.7900e-003**		**0.1335**	**0.1335**		**0.1255**	**0.1255**	**0.0000**	**243.3326**	**243.3326**	**0.0593**	**0.0000**	**244.8145**

3.4 Building Construction - 2019

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	0.0193	0.5696	0.1453	1.2400e-003	0.0307	3.7300e-003	0.0344	8.8500e-003	3.5600e-003	0.0124	0.0000	119.7757	119.7757	8.4000e-003	0.0000	119.9858
Worker	0.0583	0.0465	0.5057	1.3700e-003	0.1329	1.0600e-003	0.1339	0.0353	9.8000e-004	0.0363	0.0000	123.5471	123.5471	3.8700e-003	0.0000	123.6440
Total	**0.0776**	**0.6161**	**0.6509**	**2.6100e-003**	**0.1635**	**4.7900e-003**	**0.1683**	**0.0441**	**4.5400e-003**	**0.0487**	**0.0000**	**243.3228**	**243.3228**	**0.0123**	**0.0000**	**243.6297**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0244	0.2206	0.1938	3.1000e-004		0.0129	0.0129		0.0121	0.0121	0.0000	26.6352	26.6352	6.5000e-003	0.0000	26.7976
Total	**0.0244**	**0.2206**	**0.1938**	**3.1000e-004**		**0.0129**	**0.0129**		**0.0121**	**0.0121**	**0.0000**	**26.6352**	**26.6352**	**6.5000e-003**	**0.0000**	**26.7976**

3.4 Building Construction - 2020

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	1.8300e-003	0.0580	0.0146	1.4000e-004	3.4100e-003	2.8000e-004	3.6900e-003	9.8000e-004	2.7000e-004	1.2500e-003	0.0000	13.2232	13.2232	8.8000e-004	0.0000	13.2453
Worker	5.9900e-003	4.6100e-003	0.0510	1.5000e-004	0.0148	1.1000e-004	0.0149	3.9200e-003	1.1000e-004	4.0300e-003	0.0000	13.3020	13.3020	3.8000e-004	0.0000	13.3116
Total	**7.8200e-003**	**0.0626**	**0.0657**	**2.9000e-004**	**0.0182**	**3.9000e-004**	**0.0186**	**4.9000e-003**	**3.8000e-004**	**5.2800e-003**	**0.0000**	**26.5252**	**26.5252**	**1.2600e-003**	**0.0000**	**26.5568**

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	0.0244	0.2206	0.1938	3.1000e-004		0.0129	0.0129		0.0121	0.0121	0.0000	26.6351	26.6351	6.5000e-003	0.0000	26.7976
Total	**0.0244**	**0.2206**	**0.1938**	**3.1000e-004**		**0.0129**	**0.0129**		**0.0121**	**0.0121**	**0.0000**	**26.6351**	**26.6351**	**6.5000e-003**	**0.0000**	**26.7976**

3.4 Building Construction - 2020

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	1.8300e-003	0.0580	0.0146	1.4000e-004	3.4100e-003	2.8000e-004	3.6900e-003	9.8000e-004	2.7000e-004	1.2500e-003	0.0000	13.2232	13.2232	8.8000e-004	0.0000	13.2453
Worker	5.9900e-003	4.6100e-003	0.0510	1.5000e-004	0.0148	1.1000e-004	0.0149	3.9200e-003	1.1000e-004	4.0300e-003	0.0000	13.3020	13.3020	3.8000e-004	0.0000	13.3116
Total	**7.8200e-003**	**0.0626**	**0.0657**	**2.9000e-004**	**0.0182**	**3.9000e-004**	**0.0186**	**4.9000e-003**	**3.8000e-004**	**5.2800e-003**	**0.0000**	**26.5252**	**26.5252**	**1.2600e-003**	**0.0000**	**26.5568**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	7.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0211**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

3.5 Paving - 2020

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	6.7000e-004	5.1000e-004	5.6900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4829	1.4829	4.0000e-005	0.0000	1.4840
Total	**6.7000e-004**	**5.1000e-004**	**5.6900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4829**	**1.4829**	**4.0000e-005**	**0.0000**	**1.4840**

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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving	7.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0211**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**	**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

3.5 Paving - 2020

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	6.7000e-004	5.1000e-004	5.6900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4829	1.4829	4.0000e-005	0.0000	1.4840
Total	**6.7000e-004**	**5.1000e-004**	**5.6900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4829**	**1.4829**	**4.0000e-005**	**0.0000**	**1.4840**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.1903**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	7.9000e-004	8.7300e-003	3.0000e-005	2.5200e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.2739	2.2739	7.0000e-005	0.0000	2.2755
Total	**1.0200e-003**	**7.9000e-004**	**8.7300e-003**	**3.0000e-005**	**2.5200e-003**	**2.0000e-005**	**2.5400e-003**	**6.7000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**2.2739**	**2.2739**	**7.0000e-005**	**0.0000**	**2.2755**

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	0.1878					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total	**0.1903**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	7.9000e-004	8.7300e-003	3.0000e-005	2.5200e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.2739	2.2739	7.0000e-005	0.0000	2.2755
Total	**1.0200e-003**	**7.9000e-004**	**8.7300e-003**	**3.0000e-005**	**2.5200e-003**	**2.0000e-005**	**2.5400e-003**	**6.7000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**2.2739**	**2.2739**	**7.0000e-005**	**0.0000**	**2.2755**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Implement Trip Reduction Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5418	6.3377	10.9005	0.0250	1.6198	0.0276	1.6474	0.4340	0.0258	0.4598	0.0000	2,313.5663	2,313.5663	0.1746	0.0000	2,317.9307
Unmitigated	1.6786	7.3855	14.3478	0.0386	2.7716	0.0411	2.8128	0.7427	0.0385	0.7812	0.0000	3,563.7146	3,563.7146	0.2298	0.0000	3,569.4602

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,579.08	4,417.41	3605.34	1,783,645	1,044,517
Fast Food Restaurant with Drive Thru	1,587.58	2,310.50	1736.70	1,801,856	1,054,417
Fast Food Restaurant with Drive Thru	1,389.14	2,021.68	1519.62	1,576,624	922,615
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,022.24	1,196.28	604.25	2,135,567	1,243,391
Total	6,578.04	9,945.87	7,465.91	7,297,691	4,264,940

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
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Fast Food Restaurant with Drive Thru	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Other Asphalt Surfaces	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Parking Lot	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Regional Shopping Center	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Luiseno Village Retail Center - South Coast Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	160.2230	160.2230	6.6200e-003	1.5100e-003	160.8373
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	160.2230	160.2230	6.6200e-003	1.5100e-003	160.8373
NaturalGas Mitigated	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.7482	90.7482	1.7400e-003	1.6600e-003	91.2875
NaturalGas Unmitigated	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.7482	90.7482	1.7400e-003	1.6600e-003	91.2875

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					
Convenience Market With Gas Pumps	6771	4.0000e-005	3.3000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3613	0.3613	1.0000e-005	1.0000e-005	0.3635
Fast Food Restaurant with Drive Thru	765632	4.1300e-003	0.0375	0.0315	2.3000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.8570	40.8570	7.8000e-004	7.5000e-004	41.0998
Fast Food Restaurant with Drive Thru	875008	4.7200e-003	0.0429	0.0360	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6938	46.6938	8.9000e-004	8.6000e-004	46.9712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	53146.8	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8361	2.8361	5.0000e-005	5.0000e-005	2.8530
Total		**9.1800e-003**	**0.0834**	**0.0700**	**5.1000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**	**0.0000**	**90.7483**	**90.7483**	**1.7300e-003**	**1.6700e-003**	**91.2875**

5.2 Energy by Land Use - NaturalGas

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					
Convenience Market With Gas Pumps	6771	4.0000e-005	3.3000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3613	0.3613	1.0000e-005	1.0000e-005	0.3635
Fast Food Restaurant with Drive Thru	765632	4.1300e-003	0.0375	0.0315	2.3000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.8570	40.8570	7.8000e-004	7.5000e-004	41.0998
Fast Food Restaurant with Drive Thru	875008	4.7200e-003	0.0429	0.0360	2.6000e-004		3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003	0.0000	46.6938	46.6938	8.9000e-004	8.6000e-004	46.9712
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	53146.8	2.9000e-004	2.6100e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8361	2.8361	5.0000e-005	5.0000e-005	2.8530
Total		**9.1800e-003**	**0.0834**	**0.0700**	**5.1000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**	**0.0000**	**90.7483**	**90.7483**	**1.7300e-003**	**1.6700e-003**	**91.2875**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	38521.5	9.2974	3.8000e-004	9.0000e-005	9.3331
Fast Food Restaurant with Drive Thru	132944	32.0869	1.3300e-003	3.0000e-004	32.2099
Fast Food Restaurant with Drive Thru	151936	36.6707	1.5200e-003	3.4000e-004	36.8113
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	38080	9.1909	3.8000e-004	9.0000e-005	9.2261
Regional Shopping Center	302362	72.9771	3.0200e-003	6.9000e-004	73.2569
Total		**160.2230**	**6.6300e-003**	**1.5100e-003**	**160.8373**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	38521.5	9.2974	3.8000e-004	9.0000e-005	9.3331
Fast Food Restaurant with Drive Thru	132944	32.0869	1.3300e-003	3.0000e-004	32.2099
Fast Food Restaurant with Drive Thru	151936	36.6707	1.5200e-003	3.4000e-004	36.8113
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	38080	9.1909	3.8000e-004	9.0000e-005	9.2261
Regional Shopping Center	302362	72.9771	3.0200e-003	6.9000e-004	73.2569
Total		**160.2230**	**6.6300e-003**	**1.5100e-003**	**160.8373**

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	0.1548	5.0000e-005	5.7500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Unmitigated	0.1548	5.0000e-005	5.7500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119

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	0.0188					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Total	**0.1548**	**5.0000e-005**	**5.7500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0119**

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	0.0188					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1355					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Total	**0.1548**	**5.0000e-005**	**5.7500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0119**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.7538	0.1056	2.6100e-003	18.1725
Unmitigated	16.8159	0.1251	3.0900e-003	20.8639

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.225921 / 0.138468	1.1530	7.4100e-003	1.8000e-004	1.3930
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	6.6130	0.0596	1.4600e-003	8.5373
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.7733 / 1.08686	9.0499	0.0581	1.4400e-003	10.9336
Total		**16.8159**	**0.1251**	**3.0800e-003**	**20.8639**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.190677 / 0.138468	1.0310	6.2500e-003	1.6000e-004	1.2338
Fast Food Restaurant with Drive Thru	1.53709 / 0.116247	5.6300	0.0503	1.2300e-003	7.2543
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.49666 / 1.08686	8.0928	0.0491	1.2200e-003	9.6844
Total		**14.7538**	**0.1056**	**2.6100e-003**	**18.1724**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2483	0.3102	0.0000	13.0025
Unmitigated	20.9933	1.2407	0.0000	52.0101

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	9.17	1.8614	0.1100	0.0000	4.6116
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	25.14	5.1032	0.3016	0.0000	12.6429
Total		**20.9933**	**1.2407**	**0.0000**	**52.0101**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	2.2925	0.4654	0.0275	0.0000	1.1529
Fast Food Restaurant with Drive Thru	17.2775	3.5072	0.2073	0.0000	8.6889
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.285	1.2758	0.0754	0.0000	3.1607
Total		**5.2483**	**0.3102**	**0.0000**	**13.0025**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	6.6634	0.0000	0.0000	6.6634

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	9.46 / 0	-40.7726	0.0000	0.0000	-40.7726
Others	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**-40.7726**	**0.0000**	**0.0000**	**-40.7726**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	67	47.4360	0.0000	0.0000	47.4360
Total		**47.4360**	**0.0000**	**0.0000**	**47.4360**

Luiseno Village Retail Center

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	142.40	1000sqft	3.27	142,400.00	0
Parking Lot	272.00	Space	2.45	108,800.00	0
Fast Food Restaurant with Drive Thru	3.20	1000sqft	0.07	3,200.00	0
Fast Food Restaurant with Drive Thru	2.80	1000sqft	0.06	2,800.00	0
Convenience Market With Gas Pumps	3.05	1000sqft	0.07	3,050.00	0
Regional Shopping Center	23.94	1000sqft	0.55	23,940.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	532.1	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Utility CO2, CH4, N20 intensity factors updated to SCE 2020 standards.

Land Use - 23,940 sqft of retail space, one fast food restaurant at 3,200 sqft, one fast food restaurant at 2,800 sqft, 3,048 sqft convenience store with 12 gas pumps and car wash. 251,165 sqft of parking area and drive isles.

Construction Phase - No Demolition Required. Assumes entire 4-parcel site under construction in a single phase during 2019-2020.

Trips and VMT - Source of grading fill will be from the Soboba Reservation, less than 5 miles from the project site.

Demolition - No demolition required.

Grading - 13,831 cy of import based on grading plan. Project site is 9.5 acres.

Vehicle Trips - No edits to default values.

Energy Use -

Land Use Change - Existing site 9.46 acres of grassland.

Sequestration - Minimum of 67 Trees based on preliminary landscaping plan.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation - LUT-3: residential, retail, park within 1/4 mile. LUT-4: 0.5 mile to job center (Soboba casino/hotel). LUT-5: 2.1 mile to transit station. SDT-1 on-site pedetrian facilities connected to off-site facilities.

Mobile Commute Mitigation - TRT-2: Transportation Demand Management required by City Code Chapter 17.350.

Energy Mitigation -

Water Mitigation - Reduced water use per CalGreen 2016 standards.

Waste Mitigation - Solid waste disposal of 75% with AB 341 compliance.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	10.00	9.50
tblGrading	MaterialImported	0.00	13,831.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	702.44	532.1
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblSequestration	NumberOfNewTrees	0.00	67.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00

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					
2019	4.4224	45.6339	23.7350	0.0552	18.2675	2.3919	20.6594	9.9840	2.2006	12.1846	0.0000	5,681.2925	5,681.2925	1.1983	0.0000	5,711.0687
2020	19.1292	24.4910	22.8213	0.0523	1.6085	1.1515	2.7601	0.4334	1.0830	1.5164	0.0000	5,173.4707	5,173.4707	0.7435	0.0000	5,192.0579
Maximum	**19.1292**	**45.6339**	**23.7350**	**0.0552**	**18.2675**	**2.3919**	**20.6594**	**9.9840**	**2.2006**	**12.1846**	**0.0000**	**5,681.2925**	**5,681.2925**	**1.1983**	**0.0000**	**5,711.0687**

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					
2019	4.4224	45.6339	23.7350	0.0552	8.3310	2.3919	10.7230	4.5222	2.2006	6.7228	0.0000	5,681.2925	5,681.2925	1.1983	0.0000	5,711.0687
2020	19.1292	24.4910	22.8213	0.0523	1.6085	1.1515	2.7601	0.4334	1.0830	1.5164	0.0000	5,173.4707	5,173.4707	0.7435	0.0000	5,192.0579
Maximum	**19.1292**	**45.6339**	**23.7350**	**0.0552**	**8.3310**	**2.3919**	**10.7230**	**4.5222**	**2.2006**	**6.7228**	**0.0000**	**5,681.2925**	**5,681.2925**	**1.1983**	**0.0000**	**5,711.0687**

	ROG	NOx	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	49.99	0.00	42.43	52.43	0.00	39.86	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	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Energy	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822
Mobile	13.7754	54.5058	106.2226	0.2971	20.7927	0.3034	21.0961	5.5631	0.2842	5.8473		30,252.0216	30,252.0216	1.8647		30,298.6389
Total	**14.6750**	**54.9630**	**106.6522**	**0.2998**	**20.7927**	**0.3383**	**21.1309**	**5.5631**	**0.3191**	**5.8822**		**30,800.2445**	**30,800.2445**	**1.8755**	**0.0101**	**30,850.1256**

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	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Energy	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822
Mobile	12.7469	47.3464	78.6596	0.1930	12.1537	0.2033	12.3570	3.2517	0.1902	3.4419		19,696.0897	19,696.0897	1.4047		19,731.2082
Total	**13.6466**	**47.8035**	**79.0893**	**0.1958**	**12.1537**	**0.2382**	**12.3919**	**3.2517**	**0.2251**	**3.4768**		**20,244.3126**	**20,244.3126**	**1.4155**	**0.0101**	**20,282.6949**

	ROG	NOx	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	7.01	13.03	25.84	34.71	41.55	29.59	41.36	41.55	29.46	40.89	0.00	34.27	34.27	24.52	0.00	34.25

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	2/4/2019	2/15/2019	5	10	
2	Grading	Grading	2/18/2019	3/15/2019	5	20	
3	Building Construction	Building Construction	3/18/2019	1/31/2020	5	230	
4	Paving	Paving	2/3/2020	2/28/2020	5	20	
5	Architectural Coating	Architectural Coating	3/2/2020	3/27/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.5

Acres of Paving: 5.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 49,485; Non-Residential Outdoor: 16,495; Striped Parking Area: 15,072 (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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,729.00	14.70	6.90	5.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.0874**	**0.0612**	**0.8063**	**2.1300e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**212.4651**	**212.4651**	**6.6600e-003**		**212.6315**

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**8.1298**	**2.3904**	**10.5202**	**4.4688**	**2.1991**	**6.6679**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.0874**	**0.0612**	**0.8063**	**2.1300e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**212.4651**	**212.4651**	**6.6600e-003**		**212.6315**

3.3 Grading - 2019

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					6.6040	0.0000	6.6040	3.3765	0.0000	3.3765			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.6040**	**1.3974**	**8.0014**	**3.3765**	**1.2856**	**4.6620**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	0.3058	12.8452	2.0748	0.0237	0.3789	0.0281	0.4070	0.1039	0.0269	0.1309		2,567.4315	2,567.4315	0.2563		2,573.8396
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	0.0728	0.0510	0.6719	1.7800e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		177.0542	177.0542	5.5500e-003		177.1930
Total	**0.3786**	**12.8962**	**2.7467**	**0.0255**	**0.5465**	**0.0295**	**0.5760**	**0.1484**	**0.0281**	**0.1765**		**2,744.4857**	**2,744.4857**	**0.2619**		**2,751.0325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9718	0.0000	2.9718	1.5194	0.0000	1.5194			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**2.9718**	**1.3974**	**4.3692**	**1.5194**	**1.2856**	**2.8050**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	0.3058	12.8452	2.0748	0.0237	0.3789	0.0281	0.4070	0.1039	0.0269	0.1309		2,567.4315	2,567.4315	0.2563		2,573.8396
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	0.0728	0.0510	0.6719	1.7800e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		177.0542	177.0542	5.5500e-003		177.1930
Total	**0.3786**	**12.8962**	**2.7467**	**0.0255**	**0.5465**	**0.0295**	**0.5760**	**0.1484**	**0.0281**	**0.1765**		**2,744.4857**	**2,744.4857**	**0.2619**		**2,751.0325**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1832	5.3952	1.3304	0.0121	0.3008	0.0358	0.3365	0.0866	0.0342	0.1208		1,290.2072	1,290.2072	0.0868		1,292.3774
Worker	0.5680	0.3975	5.2408	0.0139	1.3078	0.0102	1.3180	0.3468	9.4300e-003	0.3563		1,381.0229	1,381.0229	0.0433		1,382.1050
Total	**0.7512**	**5.7928**	**6.5712**	**0.0260**	**1.6085**	**0.0460**	**1.6545**	**0.4334**	**0.0436**	**0.4771**		**2,671.2301**	**2,671.2301**	**0.1301**		**2,674.4824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1832	5.3952	1.3304	0.0121	0.3008	0.0358	0.3365	0.0866	0.0342	0.1208		1,290.2072	1,290.2072	0.0868		1,292.3774
Worker	0.5680	0.3975	5.2408	0.0139	1.3078	0.0102	1.3180	0.3468	9.4300e-003	0.3563		1,381.0229	1,381.0229	0.0433		1,382.1050
Total	**0.7512**	**5.7928**	**6.5712**	**0.0260**	**1.6085**	**0.0460**	**1.6545**	**0.4334**	**0.0436**	**0.4771**		**2,671.2301**	**2,671.2301**	**0.1301**		**2,674.4824**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.1560	4.9501	1.2041	0.0120	0.3007	0.0245	0.3253	0.0866	0.0234	0.1100		1,282.1192	1,282.1192	0.0821		1,284.1708
Worker	0.5248	0.3548	4.7687	0.0134	1.3078	9.9800e-003	1.3178	0.3468	9.1900e-003	0.3560		1,338.2885	1,338.2885	0.0386		1,339.2527
Total	**0.6808**	**5.3049**	**5.9728**	**0.0254**	**1.6085**	**0.0345**	**1.6430**	**0.4334**	**0.0326**	**0.4660**		**2,620.4077**	**2,620.4077**	**0.1206**		**2,623.4234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.1560	4.9501	1.2041	0.0120	0.3007	0.0245	0.3253	0.0866	0.0234	0.1100		1,282.1192	1,282.1192	0.0821		1,284.1708
Worker	0.5248	0.3548	4.7687	0.0134	1.3078	9.9800e-003	1.3178	0.3468	9.1900e-003	0.3560		1,338.2885	1,338.2885	0.0386		1,339.2527
Total	**0.6808**	**5.3049**	**5.9728**	**0.0254**	**1.6085**	**0.0345**	**1.6430**	**0.4334**	**0.0326**	**0.4660**		**2,620.4077**	**2,620.4077**	**0.1206**		**2,623.4234**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1059**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

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	0.0673	0.0455	0.6114	1.7200e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1800e-003	0.0456		171.5755	171.5755	4.9400e-003		171.6991
Total	**0.0673**	**0.0455**	**0.6114**	**1.7200e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1800e-003**	**0.0456**		**171.5755**	**171.5755**	**4.9400e-003**		**171.6991**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1059**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

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	0.0673	0.0455	0.6114	1.7200e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1800e-003	0.0456		171.5755	171.5755	4.9400e-003		171.6991
Total	**0.0673**	**0.0455**	**0.6114**	**1.7200e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1800e-003**	**0.0456**		**171.5755**	**171.5755**	**4.9400e-003**		**171.6991**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.7838					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**19.0260**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.1032	0.0697	0.9374	2.6400e-003	0.2571	1.9600e-003	0.2591	0.0682	1.8100e-003	0.0700		263.0824	263.0824	7.5800e-003		263.2719
Total	**0.1032**	**0.0697**	**0.9374**	**2.6400e-003**	**0.2571**	**1.9600e-003**	**0.2591**	**0.0682**	**1.8100e-003**	**0.0700**		**263.0824**	**263.0824**	**7.5800e-003**		**263.2719**

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	18.7838					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**19.0260**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.1032	0.0697	0.9374	2.6400e-003	0.2571	1.9600e-003	0.2591	0.0682	1.8100e-003	0.0700		263.0824	263.0824	7.5800e-003		263.2719
Total	**0.1032**	**0.0697**	**0.9374**	**2.6400e-003**	**0.2571**	**1.9600e-003**	**0.2591**	**0.0682**	**1.8100e-003**	**0.0700**		**263.0824**	**263.0824**	**7.5800e-003**		**263.2719**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Implement Trip Reduction Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.7469	47.3464	78.6596	0.1930	12.1537	0.2033	12.3570	3.2517	0.1902	3.4419		19,696.0897	19,696.0897	1.4047		19,731.2082
Unmitigated	13.7754	54.5058	106.2226	0.2971	20.7927	0.3034	21.0961	5.5631	0.2842	5.8473		30,252.0216	30,252.0216	1.8647		30,298.6389

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,579.08	4,417.41	3605.34	1,783,645	1,044,517
Fast Food Restaurant with Drive Thru	1,587.58	2,310.50	1736.70	1,801,856	1,054,417
Fast Food Restaurant with Drive Thru	1,389.14	2,021.68	1519.62	1,576,624	922,615
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,022.24	1,196.28	604.25	2,135,567	1,243,391
Total	6,578.04	9,945.87	7,465.91	7,297,691	4,264,940

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
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Fast Food Restaurant with Drive Thru	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Other Asphalt Surfaces	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Parking Lot	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Regional Shopping Center	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Luiseno Village Retail Center - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822
NaturalGas Unmitigated	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822

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					
Convenience Market With Gas Pumps	18.5507	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1824	2.1824	4.0000e-005	4.0000e-005	2.1954
Fast Food Restaurant with Drive Thru	2097.62	0.0226	0.2057	0.1728	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.7791	246.7791	4.7300e-003	4.5200e-003	248.2455
Fast Food Restaurant with Drive Thru	2397.28	0.0259	0.2350	0.1974	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.0332	282.0332	5.4100e-003	5.1700e-003	283.7092
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	145.608	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.1303	17.1303	3.3000e-004	3.1000e-004	17.2321
Total		**0.0502**	**0.4568**	**0.3837**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**548.1250**	**548.1250**	**0.0105**	**0.0100**	**551.3822**

5.2 Energy by Land Use - NaturalGas

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					
Convenience Market With Gas Pumps	0.0185507	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1824	2.1824	4.0000e-005	4.0000e-005	2.1954
Fast Food Restaurant with Drive Thru	2.09762	0.0226	0.2057	0.1728	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.7791	246.7791	4.7300e-003	4.5200e-003	248.2455
Fast Food Restaurant with Drive Thru	2.39728	0.0259	0.2350	0.1974	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.0332	282.0332	5.4100e-003	5.1700e-003	283.7092
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	0.145608	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.1303	17.1303	3.3000e-004	3.1000e-004	17.2321
Total		**0.0502**	**0.4568**	**0.3837**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**548.1250**	**548.1250**	**0.0105**	**0.0100**	**551.3822**

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	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Unmitigated	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045

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	0.1029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3200e-003	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Total	**0.8494**	**4.2000e-004**	**0.0460**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0979**	**0.0979**	**2.6000e-004**		**0.1045**

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	0.1029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3200e-003	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Total	**0.8494**	**4.2000e-004**	**0.0460**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0979**	**0.0979**	**2.6000e-004**		**0.1045**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Luiseno Village Retail Center

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	142.40	1000sqft	3.27	142,400.00	0
Parking Lot	272.00	Space	2.45	108,800.00	0
Fast Food Restaurant with Drive Thru	3.20	1000sqft	0.07	3,200.00	0
Fast Food Restaurant with Drive Thru	2.80	1000sqft	0.06	2,800.00	0
Convenience Market With Gas Pumps	3.05	1000sqft	0.07	3,050.00	0
Regional Shopping Center	23.94	1000sqft	0.55	23,940.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	532.1	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Luiseno Village Retail Center - South Coast Air Basin, Winter

Project Characteristics - Utility CO2, CH4, N20 intensity factors updated to SCE 2020 standards.

Land Use - 23,940 sqft of retail space, one fast food restaurant at 3,200 sqft, one fast food restaurant at 2,800 sqft, 3,048 sqft convenience store with 12 gas pumps and car wash. 251,165 sqft of parking area and drive isles.

Construction Phase - No Demolition Required. Assumes entire 4-parcel site under construction in a single phase during 2019-2020.

Trips and VMT - Source of grading fill will be from the Soboba Reservation, less than 5 miles from the project site.

Demolition - No demolition required.

Grading - 13,831 cy of import based on grading plan. Project site is 9.5 acres.

Vehicle Trips - No edits to default values.

Energy Use -

Land Use Change - Existing site 9.46 acres of grassland.

Sequestration - Minimum of 67 Trees based on preliminary landscaping plan.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation - LUT-3: residential, retail, park within 1/4 mile. LUT-4: 0.5 mile to job center (Soboba casino/hotel). LUT-5: 2.1 mile to transit station. SDT-1 on-site pedetrian facilities connected to off-site facilities.

Mobile Commute Mitigation - TRT-2: Transportation Demand Management required by City Code Chapter 17.350.

Energy Mitigation -

Water Mitigation - Reduced water use per CalGreen 2016 standards.

Waste Mitigation - Solid waste disposal of 75% with AB 341 compliance.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	10.00	9.50
tblGrading	MaterialImported	0.00	13,831.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	702.44	532.1
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblSequestration	NumberOfNewTrees	0.00	67.00
tblTripsAndVMT	HaulingTripLength	20.00	5.00

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					
2019	4.4310	45.6399	23.3988	0.0539	18.2675	2.3919	20.6594	9.9840	2.2006	12.1846	0.0000	5,546.6343	5,546.6343	1.2121	0.0000	5,576.9365
2020	19.1395	24.5240	22.5068	0.0512	1.6085	1.1519	2.7604	0.4334	1.0833	1.5167	0.0000	5,055.5728	5,055.5728	0.7467	0.0000	5,074.2401
Maximum	**19.1395**	**45.6399**	**23.3988**	**0.0539**	**18.2675**	**2.3919**	**20.6594**	**9.9840**	**2.2006**	**12.1846**	**0.0000**	**5,546.6343**	**5,546.6343**	**1.2121**	**0.0000**	**5,576.9365**

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					
2019	4.4310	45.6399	23.3988	0.0539	8.3310	2.3919	10.7230	4.5222	2.2006	6.7228	0.0000	5,546.6343	5,546.6343	1.2121	0.0000	5,576.9365
2020	19.1395	24.5240	22.5068	0.0512	1.6085	1.1519	2.7604	0.4334	1.0833	1.5167	0.0000	5,055.5728	5,055.5728	0.7467	0.0000	5,074.2401
Maximum	**19.1395**	**45.6399**	**23.3988**	**0.0539**	**8.3310**	**2.3919**	**10.7230**	**4.5222**	**2.2006**	**6.7228**	**0.0000**	**5,546.6343**	**5,546.6343**	**1.2121**	**0.0000**	**5,576.9365**

Luiseno Village Retail Center - South Coast Air Basin, Winter

	ROG	NOx	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	49.99	0.00	42.43	52.43	0.00	39.86	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	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Energy	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822
Mobile	13.2089	54.5999	107.2836	0.2806	20.7927	0.3079	21.1006	5.5631	0.2886	5.8516		28,566.5702	28,566.5702	1.9288		28,614.7897
Total	**14.1086**	**55.0571**	**107.7132**	**0.2833**	**20.7927**	**0.3428**	**21.1355**	**5.5631**	**0.3234**	**5.8865**		**29,114.7931**	**29,114.7931**	**1.9396**	**0.0101**	**29,166.2764**

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	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Energy	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822
Mobile	12.2097	47.0389	82.5616	0.1818	12.1537	0.2078	12.3615	3.2517	0.1945	3.4463		18,529.3809	18,529.3809	1.4832		18,566.4595
Total	**13.1094**	**47.4961**	**82.9913**	**0.1845**	**12.1537**	**0.2427**	**12.3964**	**3.2517**	**0.2294**	**3.4811**		**19,077.6038**	**19,077.6038**	**1.4939**	**0.0101**	**19,117.9462**

	ROG	NOx	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	7.08	13.73	22.95	34.88	41.55	29.20	41.35	41.55	29.07	40.86	0.00	34.47	34.47	22.98	0.00	34.45

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	2/4/2019	2/15/2019	5	10	
2	Grading	Grading	2/18/2019	3/15/2019	5	20	
3	Building Construction	Building Construction	3/18/2019	1/31/2020	5	230	
4	Paving	Paving	2/3/2020	2/28/2020	5	20	
5	Architectural Coating	Architectural Coating	3/2/2020	3/27/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.5

Acres of Paving: 5.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 49,485; Non-Residential Outdoor: 16,495; Striped Parking Area: 15,072 (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	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,729.00	14.70	6.90	5.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.0960**	**0.0672**	**0.7326**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**199.2901**	**199.2901**	**6.2500e-003**		**199.4463**

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					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**8.1298**	**2.3904**	**10.5202**	**4.4688**	**2.1991**	**6.6679**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

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	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.0960**	**0.0672**	**0.7326**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**199.2901**	**199.2901**	**6.2500e-003**		**199.4463**

3.3 Grading - 2019

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					6.6040	0.0000	6.6040	3.3765	0.0000	3.3765			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.6040**	**1.3974**	**8.0014**	**3.3765**	**1.2856**	**4.6620**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	0.3259	12.6785	2.4713	0.0226	0.3789	0.0300	0.4088	0.1039	0.0287	0.1326		2,443.7524	2,443.7524	0.2777		2,450.6951
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	0.0800	0.0560	0.6105	1.6700e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		166.0751	166.0751	5.2100e-003		166.2053
Total	**0.4059**	**12.7345**	**3.0818**	**0.0242**	**0.5465**	**0.0313**	**0.5778**	**0.1484**	**0.0299**	**0.1783**		**2,609.8275**	**2,609.8275**	**0.2829**		**2,616.9003**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9718	0.0000	2.9718	1.5194	0.0000	1.5194			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**2.9718**	**1.3974**	**4.3692**	**1.5194**	**1.2856**	**2.8050**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

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	0.3259	12.6785	2.4713	0.0226	0.3789	0.0300	0.4088	0.1039	0.0287	0.1326		2,443.7524	2,443.7524	0.2777		2,450.6951
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	0.0800	0.0560	0.6105	1.6700e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		166.0751	166.0751	5.2100e-003		166.2053
Total	**0.4059**	**12.7345**	**3.0818**	**0.0242**	**0.5465**	**0.0313**	**0.5778**	**0.1484**	**0.0299**	**0.1783**		**2,609.8275**	**2,609.8275**	**0.2829**		**2,616.9003**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1911	5.4019	1.4734	0.0118	0.3008	0.0363	0.3371	0.0866	0.0348	0.1213		1,255.5530	1,255.5530	0.0929		1,257.8741
Worker	0.6238	0.4368	4.7616	0.0130	1.3078	0.0102	1.3180	0.3468	9.4300e-003	0.3563		1,295.3858	1,295.3858	0.0406		1,296.4011
Total	**0.8149**	**5.8387**	**6.2350**	**0.0248**	**1.6085**	**0.0466**	**1.6551**	**0.4334**	**0.0442**	**0.4776**		**2,550.9388**	**2,550.9388**	**0.1335**		**2,554.2753**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

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	0.1911	5.4019	1.4734	0.0118	0.3008	0.0363	0.3371	0.0866	0.0348	0.1213		1,255.5530	1,255.5530	0.0929		1,257.8741
Worker	0.6238	0.4368	4.7616	0.0130	1.3078	0.0102	1.3180	0.3468	9.4300e-003	0.3563		1,295.3858	1,295.3858	0.0406		1,296.4011
Total	**0.8149**	**5.8387**	**6.2350**	**0.0248**	**1.6085**	**0.0466**	**1.6551**	**0.4334**	**0.0442**	**0.4776**		**2,550.9388**	**2,550.9388**	**0.1335**		**2,554.2753**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.1632	4.9483	1.3342	0.0117	0.3007	0.0249	0.3256	0.0866	0.0238	0.1104		1,247.2738	1,247.2738	0.0877		1,249.4664
Worker	0.5773	0.3897	4.3241	0.0126	1.3078	9.9800e-003	1.3178	0.3468	9.1900e-003	0.3560		1,255.2360	1,255.2360	0.0361		1,256.1393
Total	**0.7405**	**5.3380**	**5.6583**	**0.0243**	**1.6085**	**0.0349**	**1.6434**	**0.4334**	**0.0330**	**0.4664**		**2,502.5098**	**2,502.5098**	**0.1238**		**2,505.6057**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

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	0.1632	4.9483	1.3342	0.0117	0.3007	0.0249	0.3256	0.0866	0.0238	0.1104		1,247.2738	1,247.2738	0.0877		1,249.4664
Worker	0.5773	0.3897	4.3241	0.0126	1.3078	9.9800e-003	1.3178	0.3468	9.1900e-003	0.3560		1,255.2360	1,255.2360	0.0361		1,256.1393
Total	**0.7405**	**5.3380**	**5.6583**	**0.0243**	**1.6085**	**0.0349**	**1.6434**	**0.4334**	**0.0330**	**0.4664**		**2,502.5098**	**2,502.5098**	**0.1238**		**2,505.6057**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1059**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

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	0.0740	0.0500	0.5544	1.6200e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1800e-003	0.0456		160.9277	160.9277	4.6300e-003		161.0435
Total	**0.0740**	**0.0500**	**0.5544**	**1.6200e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1800e-003**	**0.0456**		**160.9277**	**160.9277**	**4.6300e-003**		**161.0435**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1059**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

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	0.0740	0.0500	0.5544	1.6200e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1800e-003	0.0456		160.9277	160.9277	4.6300e-003		161.0435
Total	**0.0740**	**0.0500**	**0.5544**	**1.6200e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1800e-003**	**0.0456**		**160.9277**	**160.9277**	**4.6300e-003**		**161.0435**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	18.7838					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**19.0260**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.1135	0.0766	0.8500	2.4800e-003	0.2571	1.9600e-003	0.2591	0.0682	1.8100e-003	0.0700		246.7558	246.7558	7.1000e-003		246.9334
Total	**0.1135**	**0.0766**	**0.8500**	**2.4800e-003**	**0.2571**	**1.9600e-003**	**0.2591**	**0.0682**	**1.8100e-003**	**0.0700**		**246.7558**	**246.7558**	**7.1000e-003**		**246.9334**

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	18.7838					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**19.0260**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

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	0.1135	0.0766	0.8500	2.4800e-003	0.2571	1.9600e-003	0.2591	0.0682	1.8100e-003	0.0700		246.7558	246.7558	7.1000e-003		246.9334
Total	**0.1135**	**0.0766**	**0.8500**	**2.4800e-003**	**0.2571**	**1.9600e-003**	**0.2591**	**0.0682**	**1.8100e-003**	**0.0700**		**246.7558**	**246.7558**	**7.1000e-003**		**246.9334**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Implement Trip Reduction Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.2097	47.0389	82.5616	0.1818	12.1537	0.2078	12.3615	3.2517	0.1945	3.4463		18,529.3809	18,529.3809	1.4832		18,566.4595
Unmitigated	13.2089	54.5999	107.2836	0.2806	20.7927	0.3079	21.1006	5.5631	0.2886	5.8516		28,566.5702	28,566.5702	1.9288		28,614.7897

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,579.08	4,417.41	3605.34	1,783,645	1,044,517
Fast Food Restaurant with Drive Thru	1,587.58	2,310.50	1736.70	1,801,856	1,054,417
Fast Food Restaurant with Drive Thru	1,389.14	2,021.68	1519.62	1,576,624	922,615
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,022.24	1,196.28	604.25	2,135,567	1,243,391
Total	6,578.04	9,945.87	7,465.91	7,297,691	4,264,940

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
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Fast Food Restaurant with Drive Thru	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Other Asphalt Surfaces	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Parking Lot	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Regional Shopping Center	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Luiseno Village Retail Center - South Coast Air Basin, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822
NaturalGas Unmitigated	0.0502	0.4568	0.3837	2.7400e-003		0.0347	0.0347		0.0347	0.0347		548.1250	548.1250	0.0105	0.0101	551.3822

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					
Convenience Market With Gas Pumps	18.5507	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1824	2.1824	4.0000e-005	4.0000e-005	2.1954
Fast Food Restaurant with Drive Thru	2097.62	0.0226	0.2057	0.1728	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.7791	246.7791	4.7300e-003	4.5200e-003	248.2455
Fast Food Restaurant with Drive Thru	2397.28	0.0259	0.2350	0.1974	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.0332	282.0332	5.4100e-003	5.1700e-003	283.7092
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	145.608	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.1303	17.1303	3.3000e-004	3.1000e-004	17.2321
Total		**0.0502**	**0.4568**	**0.3837**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**548.1250**	**548.1250**	**0.0105**	**0.0100**	**551.3822**

5.2 Energy by Land Use - NaturalGas

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					
Convenience Market With Gas Pumps	0.0185507	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004		2.1824	2.1824	4.0000e-005	4.0000e-005	2.1954
Fast Food Restaurant with Drive Thru	2.09762	0.0226	0.2057	0.1728	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.7791	246.7791	4.7300e-003	4.5200e-003	248.2455
Fast Food Restaurant with Drive Thru	2.39728	0.0259	0.2350	0.1974	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.0332	282.0332	5.4100e-003	5.1700e-003	283.7092
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Regional Shopping Center	0.145608	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.1303	17.1303	3.3000e-004	3.1000e-004	17.2321
Total		**0.0502**	**0.4568**	**0.3837**	**2.7400e-003**		**0.0347**	**0.0347**		**0.0347**	**0.0347**		**548.1250**	**548.1250**	**0.0105**	**0.0100**	**551.3822**

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	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Unmitigated	0.8494	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045

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	0.1029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3200e-003	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Total	**0.8494**	**4.2000e-004**	**0.0460**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0979**	**0.0979**	**2.6000e-004**		**0.1045**

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	0.1029					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3200e-003	4.2000e-004	0.0460	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.0979	0.0979	2.6000e-004		0.1045
Total	**0.8494**	**4.2000e-004**	**0.0460**	**0.0000**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**0.0979**	**0.0979**	**2.6000e-004**		**0.1045**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Emission Calculations for Gasoline Dispensing Facility

TOG Emissions for Gasoline Dispensing Facility

Luiseno Village Retail Center
5-Oct-18

Annual throughput: 4,000,000 Gallons

Source	TOG Emission factor (lb/1,000 gal)	Annual TOG Emissions (lbs/year)	Average Daily TOG Emissions (lbs/day)
UST Filling	0.15	600	1.64
UST Breathing Losses	0.0	96	0.26
Dispensing			
ORVR Vehicles (87% of fleet)	0.021	73	0.20
Non-ORVR Vehicles (13% of fleet)	0.42	218	0.60
Dispensing Spillage	0.24	960	2.63
Gasoline Dispensing Hose Permeation	0.009	36	0.10
	Total:	**1,983**	**5.43**

Note: *Emission factors from Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities* , CARB, December 23, 2013, Table I-I. Assumes operation begins in 2020 when CARB assumes 87% of vehicles will have onboard refueling vapor recovery (ORVR) systems.

Appendix C

Health Risk Assessment Calculations

GASOLINE DISPENSING SERVICE STATION

(Procedure Version 8.1 & Package N, September 1, 2017) - Risk Tool V1.1

AN:

Facility Name: Luiseno Village Retail

Deem Complete Date: 4/1/2020

Storage Tank Type	Underground		MET Station	Perris	
Annual Throughput	4	million gallons /year	Distance to Resident	130	meter
T-BACT	YES		Distance to Commercial	20	meter

MICR Calculation: MICR = MICR per 1 Million gallons/yr x Annual Throughput (Million gallons/yr)

HIA & HIC Calculation: Negligible compared to Cancer risk and is not calculated.

MICR Result

	Resident	Commercial
MICR	1.373	1.152
MICR ≤ 10	**PASS**	**PASS**

Interpolation for MICR from Nearest Distances

	Residential			**Commercial**		
	near	**actual**	far	near	**actual**	far
Distance (meter)	100	**130**	200	20	**20**	25
MICR (per 1 million gasoline gallon throughput per year)	0.436	**0.3433**	0.127	0.288	**0.288**	0.288

Look up from Table 12 - MICR for Underground Storage Tank

		Downwind Distance (m)							
Station	**Receptor**	**25**	**50**	**75**	**100**	**200**	**300**	**500**	**1000**
Perris	Resident	3.494	1.310	0.695	0.436	0.127	0.063	0.026	0.008
	Commercial	0.288	0.108	0.057	0.036	0.010	0.005	0.002	0.001