Appendix A

Air Quality and Greenhouse Gas Impact Study

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October 21, 2020

Mr. Brandon Humann
Rancho Development Partners, LLC
25425 Jefferson Avenue, Ste 101
Murrieta, CA 92562

Subject: **Corydon Gateway Development – Air Quality and Greenhouse Gas Impact Study, City of Murrieta, , City of Lake Elsinore, CA – Memo #1**

Dear Mr. Humann:

MD Acoustics, LLC (MD) has been working with RED Corydon, LLC and team as it relates to the Air Quality and Greenhouse Gas (AQ/GHG) study for the Cordon Gateway Development project located at the southwest corner of Mission Trail and Lemon Street, in the City of Lake Elsinore, CA. MD competed a revised AQ/GHG study 9/14/2020, which addresses the comments prepared by Helix. In addition, MD provided response to comments for those comments provided. The intent of this memo is to address the slight difference between the project's land uses and the ones identified in the AQ/GHG report.

Originally, the project showed a drive-thru fast food on parcel 4. Now the new site plan illustrates a tire store. Although the project's land uses have changed since the preparation of the report, the land uses/assumptions used in the modeling and analysis provide a conservative analysis as the trip generation rates for drive-thru restaurants are higher than for tire stores.

MD is pleased to provide this memo. If you have any questions regarding this memo please call our office at (805) 426-4477.

Sincerely,
MD Acoustics, LLC

Mike Dickerson

Mike Dickerson, INCE
Principal

Corydon Gateway Development

Air Quality and Greenhouse Gas Impact Study

City of Lake Elsinore, CA

Prepared for:

Mark Cooper
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Prepared by:

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Date: 9/14/2020

MD ACOUSTICS
Sound Solutions for Planning and Design

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GLOSSARY OF TERMS

AQMP	Air Quality Management Plan
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO_2	Nitrogen dioxide
N_2O	Nitrous oxide
O_3	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This air quality and greenhouse gas (GHG) analysis was prepared to evaluate whether the estimated criteria pollutants and GHG emissions generated from the project would cause a significant impact to the air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The assessment is consistent with the methodology and emission factors endorsed by South Coast Air Quality Management District (SCAQMD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.2 Project Summary

1.2.1 Site Location

The project site is located at the southwest corner of Mission Trail and Lemon Street in Lake Elsinore, California, as shown in Exhibit A. The site's current land use classification is General Commercial according to the City of Lake Elsinore East Lake Specific Plan Land Use Plan and the proposed use is commercial. Land uses surrounding the site include industrial uses and vacant land to the south, vacant land to the west, commercial and residential land to the east (across Mission Trail), and vacant land to the north.

1.2.2 Project Description

The Project proposes to develop 4,088 square feet of retail (7-Eleven) with a 16 pump gas station, 5,298 square feet of fast food drive-through, 11,520 square feet of automobile care center, a 4,007 square foot express car wash tunnel, and 11,520 square feet of office use on approximately 6.05 acres. Exhibit B demonstrates the site plan for the project.

Construction activities within the Project area will consist of on-site grading, building, paving, and architectural coating. Table 1 summarizes the land use description for the Project Site.

< Table 1, next page >

Table 1: Land Use Summary

Land Use	Unit Amount	Size Metric
General Office Building	11.520	TSF
Fast-Food Restaurant w/ Drive-Thru	5.298	TSF
Fast-Food Restaurant w/o Drive-Thru (Car Wash)[2]	4.007	TSF
Automobile Care Center	11.520	TSF
Gasoline/Service Station[1]	16	Pump
Other Asphalt Surfaces	4.10	Acre
Other Non-Asphalt Surfaces	1.13	Acre

[1] Convenience Market is 4,088 SF.

[2] CalEEMod does not have a car wash land use available in its database. Generally Automobile Care Center is used for Car Wash uses; however, this project already has an Automobile Care Center land use and CalEEMod does not provide for different trip generation rates within the same land use type. Therefore, the proposed car wash was modeled as a Fast-Food Restaurant w/o Drive-Thru (Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017, Land Use Code 933), as this is the next closest land use to a car wash available.

1.2.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc).

The closest existing sensitive receptors (to the site area) are the residential land uses located approximately 100 feet east (across Mission Trail) and 325 feet southeast (across the intersection of Mission Trail and Corydon Street) of the project site.

1.3 Executive Summary of Findings and Mitigation Measures

The following is a summary of the analysis results:

Construction-Source Emissions
Project construction-source emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. For localized emissions, the project will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

Project construction-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or

substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

Operational-Source Emissions

The project operational-sourced emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the Operations-Related Local Air Quality Impacts section of this report. Additionally, project-related traffic will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO "hotspots). Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

Project operational-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). The project's emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less-than significant.

The proposed project is estimated to have approximately 1.87MM gallons of through put per year which equates to an approximate 5.57 in a million maximum individual cancer risk (MICR) per SCAQMD's gasoline station health risk assessment (HRA) screening tables for receptors located at 25 meters from fuel source (the pumps are located further away @ approximately 45 meters). The risk is below SCAQMD's 10 in a million threshold.

Project-related GHG emissions meet the SCAQMD draft threshold and are also considered to be less than significant. The project also complies with the goals of the CARB Scoping Plan, AB-32, SB-32 and City of Lake Elsinore climate Action Plan**.**

Mitigation Measures

A. <u>Construction Measures</u>

Adherence to SCAQMD Rule 403 is required.

No construction mitigation required.

B. Operational Measures to Reduce Greenhouse Gas Emissions

Mitigation Measure 1. The project applicant shall implement Measure T-1.2 from the Climate Action Plan, which requires the installation of sidewalks along all new streets as well as internal sidewalks to connect to neighborhood activity centers, major destinations, and transit facilities.

Mitigation Measure 2. The project applicant shall implement Measure T-1.4 from the Climate Action Plan, which requires the installation of a bike lane along the project site boundary with Corydon Street and Mission Trail to connect to the Class II bikeways currently located on Corydon Street and Mission Trail.

Mitigation Measure 3. The project applicant shall require that all faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 30% per CalGreen Standards and Climate Action Plan Measure E-4.

Mitigation Measure 4. The project applicant shall prepare a Landscape Plan that meets the requirements of Measures E1.1 and E-4.1 from the Climate Action Plan, which require that all new developments plant a minimum of one 15 gallon non-deciduous umbrella form tree per 30 linear feet of boundary length and that the Landscape Plan is designed to be consistent with the requirements detailed in Assembly Bill 1881.

Mitigation Measure 5. Per Climate Action Plan Measure S-1.4, the project applicant shall require that the building contractor recycles a minimum of 65 percent of the nonhazardous construction debris generated from construction of the proposed project. This shall be achieved by the preparation of a waste management plan for the project and a copy of the completed waste management report will be submitted to the City at the completion of construction.

Mitigation Measure 6. The project applicant shall implement Measure T-1.5 from the Climate Action Plan, which requires the project to provide permanently anchored bicycle racks within 200 feet of the visitor entrance and readily visible to passers-by for at least 5 percent of visitor motorized vehicle parking capacity (with a minimum of one two-bike capacity rack).

Mitigation Measure 7. The project applicant shall implement Measure T-2.1 from the Climate Action Plan, which requires new non-residential development to designate 10% of total parking spaces for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles (consistent with CalGreen Tier 1, Sections A5.106.5.1 and A5.106.5.3). Parking stalls shall be marked — Clean Air Vehicle.

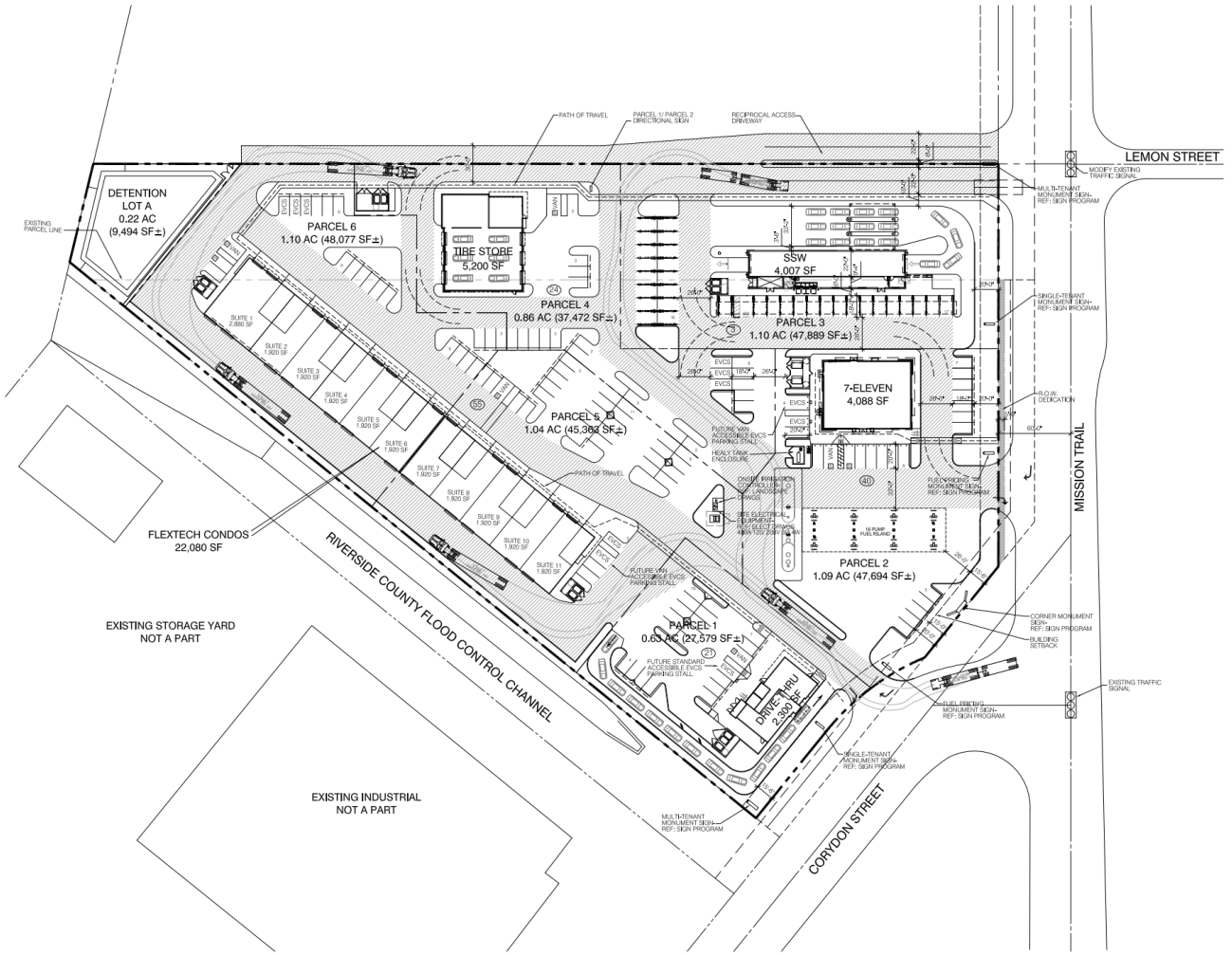
Mitigation Measure 8. The project applicant shall implement Measure E-1.3 from the Climate Action Plan, which requires new non-residential development to use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index (SRI)3 consistent with CalGreen Tier 1 values (Table A5.106.11.2.1).

Mitigation Measure 9. The project applicant shall require recycling programs that reduces waste to landfills by a minimum of 75 percent (per AB 341).

Exhibit A
Location Map

Exhibit B

Site Plan



0 20' 40' 80'
SCALE: 1" = 40.00'
TRUE NORTH
PROJECT NORTH

CORYDON GATEWAY
LAKE ELSINORE, CALIFORNIA

RED CORYDON, LLC
25425 JEFFERSON AVENUE, SUITE 101
MURRIETA, CA 92562
951.643.4711

PARKING EMC SEC. 17.148.030

REQUIRED PARKING:

PARKING STALL DIMENSIONS (U.N.O.):	9' X 18'
MINIMUM AISLE WIDTH (90° PARKING):	26'
RETAIL (1/250):	17 STALLS
DRIVE-THRU RESTAURANT:	
1/ 40 SF CUSTOMER AREA (600 SF/ 40):	15 STALLS
1/ 200 SF NONCUSTOMER AREA (1,850 SF/ 200):	9 STALLS
TIRE STORE:	
750 SF/ 250 OFFICE/ SALES:	3 STALLS
3/ SERVICE BAY:	18 STALLS
FLEXTECH CONDOS:	
1,500 SF/ 250 OFFICE:	22 STALLS
16,580 SF/ 500 STORAGE:	34 STALLS
EXPRESS CARWASH (1/ EMPLOYEE)	3 STALLS
PARKING REQUIRED:	121 STALLS
TOTAL PARKING PROVIDED:	143 STALLS

ACCESSIBLE PARKING

2019 CBC TABLE 11B-208.2

TOTAL NUMBER OF PARKING SPACES PROVIDED	TOTAL NUMBER OF ACCESSIBLE SPACES
1–25	1
26–50	2
51–75	3
76–100	4
101–150	5
151–200	6
201–300	7
301–400	8
401–500	9
501–1,000	2 PERCENT OF TOTAL
1,001 AND OVER	20 PLUS 1/100 OVER 1,000

TOTAL PARKING PROVIDED:	143 STALLS
TOTAL ACCESSIBLE SPACES REQUIRED:	5 STALLS
VAN ACCESSIBLE REQ'D (SEC.11B-208.2.4)	1 OF TOTAL REQ'D
ACCESSIBLE SPACES PROVIDED:	
STANDARD STALL:	1 STALLS
VAN ACCESSIBLE STALLS:	6 STALLS
TOTAL ACCESSIBLE SPACES PROVIDED:	7 STALLS

CLEAN AIR VEHICLE PARKING

2019 CAL GREEN TABLE 5.106.5.2

TOTAL NUMBER OF PARKING SPACES	TOTAL NUMBER OF PARKING SPACES
0–9	0
10–25	1
26–50	3
51–75	6
76–100	8
101–150	11
151–200	16
201 AND OVER	8 PERCENT OF TOTAL

TOTAL PARKING PROVIDED:	143 STALLS
TOTAL CAV PARKING REQUIRED:	11 STALLS
TOTAL CAV PARKING PROVIDED:	**11 STALLS

**(CALGREEN 5.106.5.3.5: FUTURE EVCS SPACES QUALIFY AS DESIGNATED PARKING FOR CLEAN AIR VEHICLES)

FUTURE ELECTRICAL VEHICLE CHARGING STATIONS

2019 CAL GREEN TABLE 5.106.5.3.3

TOTAL NUMBER OF PARKING SPACES	TOTAL NUMBER OF EVCS SPACES
0–9	0
10–25	1
26–50	2
51–75	4
76–100	5
101–150	7
151–200	10
201 AND OVER	6 PERCENT OF TOTAL

2019 CBC TABLE 11B-228.3.2.1

TOTAL NUMBER OF EVCS AT A FACILITY	VAN ACCESSIBLE	STANDARD ACCESSIBLE	AMBULATORY
1–4	1	0	0
5–25	1	1	0
26–50	1	1	1
51–75	1	2	2
76–100	1	3	3
101 AND OVER	1 + 1/300 OVER 100	3 + 1/60 OVER 100	1 + 1/50 OVER 100

TOTAL PARKING PROVIDED:	143 STALLS
FUTURE EVCS SPACES REQUIRED:	7 STALLS
FUTURE ACCESSIBLE SPACES REQ'D (OF TOTAL):	
VAN ACCESSIBLE:	1 STALL
STANDARD ACCESSIBLE:	1 STALL
AMBULATORY:	0 STALLS
FUTURE EVCS SPACES PROVIDED:	
FUTURE STANDARD EVCS SPACES:	7 STALLS
FUTURE VAN ACCESSIBLE EVCS PROVIDED:	2 STALL
FUTURE STANDARD ACCESSIBLE EVCS PROVIDED:	1 STALL
FUTURE AMBULATORY EVCS PROVIDED:	0 STALLS
TOTAL FUTURE EVCS SPACES PROVIDED:	11 STALLS

FUTURE EVCS NOTES:

1. ALL CLEAN AIR VEHICLE PARKING SPACES SHALL BE PROVIDED WITH INFRASTRUCTURE FOR THE ADDITION OF FUTURE ELECTRIC VEHICLE CHARGING STATIONS.
2. FUTURE ACCESSIBLE EVCS STALLS SHALL BE CONSTRUCTED TO MEET CURRENT ACCESSIBILITY STANDARDS ALONG ACCESSIBLE ROUTES OR HAVE THE ABILITY TO BE MODIFIED WITHOUT AFFECTING REQUIRED PARKING SPACE QUANTITIES.

VICINITY

ZONING

GENERAL PLAN:	SPECIFIC PLAN
ZONING:	EAST LAKE SPECIFIC PLAN PLANNING AREA 2 ACTION SPORTS, TOURISM, COMMERCIAL & RECREATION MIXED US OVERLAY
BUILDING SETBACKS:	
FRONT:	15'
SIDE/ADJ TO PUBLIC RIGHT-OF-WAY):	15'
SIDE/ADJ TO INTERIOR LOT LINES):	0'
REAR/ADJ TO INTERIOR LOT LINES):	0'
PARKING SETBACKS:	
FRONT:	25'-AVG/ 20' MIN
SIDE/ADJ TO PUBLIC RIGHT-OF-WAY):	15'
SIDE/ADJ TO INTERIOR LOT LINES):	0'
REAR/ADJ TO INTERIOR LOT LINES):	0'
MAXIMUM BUILDING HEIGHT:	45'
ARCHITECTURAL ELEMENTS:	65'
MAXIMUM BUILDING COVERAGE:	
MINIMUM LANDSCAPE COVERAGE:	15%

PROJECT SUMMARY

LAND AREA:	6.05 AC (263,663 SF±)
RETAIL:	4,088 SF
DRIVE-THRU RESTAURANT:	2,300 SF
TIRE STORE:	
SALES:	750 SF
SERVICE:	4,450 SF (6 SERVICE BAYS)
FLEXTECH:	
OFFICE:	5,500 SF
STORAGE:	16,580 SF
EXPRESS CARWASH:	4,007 SF
TOTAL BUILDING AREA:	38,395 SF
FUELING CANOPY:	4,285 SF
CARWASH PAY CANOPY:	
BUILDING COVERAGE (F.A.R.):	16.2%
MAXIMUM BUILDING HEIGHT:	30'
ONSITE LANDSCAPE AREA:	40,826 SF (15.5%)

LEGEND & SYMBOLS

VAN	VAN ACCESSIBLE PARKING SPACE
CAV	CLEAN AIR VEHICLE PARKING SPACE
EVCS	FUTURE ELECTRICAL VEHICLE CHARGING PARKING SPACE
DDC	DOUBLE DETECTOR CHECK VALVE- REF: CIVIL DRAWINGS
FDC	FIRE DEPARTMENT CONNECTION- REF: CIVIL DRAWINGS
FH	FIRE HYDRANT- REF: CIVIL DRAWINGS. PROVIDE BLUE REFLECTOR @ CL DRIVEWAY PER FIRE DEPT REQUIREMENTS
GM	GAS METER LOCATION- REF: PLUMBING & GAS UTILITY DRAWINGS
PIV	POST INDICATOR VALVE- REF: CIVIL DRAWINGS
R	RECYCLE DUMPSTER
T	TRASH DUMPSTER
TR	TRANSFORMER- REF ELECTRICAL UTILITY DRAWINGS
WM	WATER METER- REF: CIVIL DRAWINGS
SS	STOP SIGN- REF: DET. 9/ SD2.0
AP	ACCESSIBLE PATH SIGN- REF DET. 8/ SD2.0
SE	SITE ENTRANCE SIGN- REF DET. 7/ SD2.0

FIRE LANE

FIRE TRUCK TURNING RADIUS

NOTE:

BUILDING AREAS AND LAND COVERAGE ARE PRELIMINARY AND SUBJECT TO ADJUSTMENT. ANY PROPOSED DEVELOPMENT IS SUBJECT TO APPROVAL OF GOVERNMENT OR OTHER AGENCIES HAVING JURISDICTION. ALL DIMENSIONS AND SITE CONDITIONS ARE SUBJECT TO VERIFICATION.

PRELIMINARY SITE PLAN
SCHEME Kv6

CORYDON GATEWAY
LAKE ELSINORE, CA

GKPA PROJECT #19114.01
24 JUNE 2020

GKP PIERCE ARCHITECTS
3 OVERTURE
ALISO VIEJO, CA 92656
T 949.344.2710
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2.0 Regulatory Framework and Background

2.1 Air Quality Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

2.1.1 National and State

The EPA is responsible for global, international, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Air Quality Standards, also known as federal standards. There are six common air pollutants, called criteria pollutants, which were identified from the provisions of the Clean Air Act of 1970.

- Ozone
- Nitrogen Dioxide
- Lead
- Particulate Matter (PM10 and PM2.5)
- Carbon Monoxide
- Particulate Matter
- Sulfur Dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to project the public health.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. See http://www.arb.ca.gov/research/aaqs/aaqs.htm for additional information on criteria pollutants and air quality standards.

The federal and state ambient air quality standards are summarized in Table 2 and can also be found at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Table 2: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentrations[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O3)	1-Hour	0.09 ppm	Ultraviolet Photometry	- -	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm		0.070 ppm (147 µg/m³)		
Respirable Particulate Matter (PM10)[8]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µ/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		- -		
Fine Particulate Matter (PM2.5)[8]	24-Hour	- -	- -	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m³)	- -	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m³)		9 ppm (10 µg/m³)	- -	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m³)		- -	- -	
Nitrogen Dioxide (NO_2)[9]	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	- -	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (357 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	- -	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	- -		- -	0.5 ppm (1300 mg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[10]	- -	
	Annual Arithmetic Mean	- -		0.130ppm (for certain areas)[10]	- -	
Lead[11,12]	30 Day Average	1.5 µg/m³	Atomic Absorption	- -		High Volume Sampler and Atomic Absorption
	Calendar Qrtr	- -		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	- -		0.15 µg/m³		
Visibility Reducing Particles[13]	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Several pollutants listed in Table 2 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.1.2 South Coast Air Quality Management District

The agency for air pollution control for the South Coast Air Basin (basin) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the basin. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon.

On March 23, 2017 CARB approved the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. Now that the plan has been approved by CARB, it has been forwarded to the U.S. Environmental Protection Agency for its review. If approved by EPA, the plan becomes federally enforceable

The 2012 AQMP built upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilized revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized new area source categories such as liquid propane gas (LPG) transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

South Coast Air Quality Management District Rules

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal standards. Some of the rules and regulations that apply to this Project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities 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 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access

roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable suppression techniques are indicated below and include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas in active for 10 days or more).
- Water active sites at least three times daily.
- Cover all trucks hauling dirt, san, soil, or other loose materials, or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) section 23114.
- Pave construction access roads at least 100 feet onto the site from the main road.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-iste streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

Idling Diesel Vehicle Trucks – Idling for more than 5 minutes in any one location is prohibited within California borders.

Rule 2702. The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

2.2 Greenhouse Gas Regulatory Setting

2.2.1 International

Many countries around the globe have made an effort to reduce GHGs since climate change is a global issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020; a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

2.2.2 National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's

National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply 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 carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide 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 second phase of the national program would involve proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. 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 carbon dioxide 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 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 agencies are proposing engine and vehicle standards starting in the 2014 model year which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and CO2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO2 standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of CO2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO2-equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[1]

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines,

[1] National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf.

and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. The following link provides more information on the EPA Plan: https://www.epa.gov/arc-x/planning-climate-change-adaptation

2.2.3 California

California Code of Regulations (CCR) Title 24, Part 6. CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 and 2016 standards have been approved and became effective July 1, 2014 and January 1, 2016, respectively. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

California Code of Regulations (CCR) Title 24, Part 11. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards.. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The following links provide more information on Title 24, Part 11:
https://www.dgs.ca.gov/BSC/Codes
https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle, during the 2016 to 2017 fiscal year. During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle.

The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and

install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The 2019 CalGreen Code includes the following changes and/or additional regulations:

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades[2].

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the post-construction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require post-construction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of post-construction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regards to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regards to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

[2] https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regards to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regards to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official. The following link provides more on CalGreen Building Standards:
http://www.bsc.ca.gov/Home/CALGreen.aspx

Executive Order S-3-05. California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following targets:

- By 2010, California shall reduce greenhouse gas emissions to 2000 levels;
- By 2020, California shall reduce greenhouse gas emissions to 1990 levels.
- By 2050, California shall reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Senate Bill 32 and Assembly Bill 197. In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

SB 32, Pavley. California Global Warming Solutions Act of 2006

(1) The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to

the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective greenhouse gas emissions reductions. This bill would require the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.

(2) This bill would become operative only if AB 197 of the 2015–16 Regular Session is enacted and becomes effective on or before January 1, 2017. AB 197 requires that the California Air Resources Board, which directs implementation of emission-reduction programs, should target direct reductions at both stationary and mobile sources. AB 197 of the 2015-2016 Regular Session was approved on September 8, 2016.

Executive Order S-01-07. Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

SB 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO2e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO2e. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 MMTCO2e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, Including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped"

strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.[4]

The First Update to the Scoping Plan was approved by CARB in May 2014 and builds upon the initial Scoping Plan with new strategies and recommendations. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO2e. CARB also updated the State's 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO2e.

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017. The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The 2017 Scoping Plan considered the Scoping Plan Scenario and four alternatives for achieving the required GHG reductions but ultimately selected the Scoping Plan Scenario.

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals."[3] Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply at least 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives were designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030. Implementing this Scoping Plan will ensure that California's climate actions continue to promote innovation, drive the generation of new jobs, and achieve continued reductions of smog and air toxics. The ambitious approach draws on a decade of successful programs that address the major sources of climate-changing gases in every sector of the economy:

- More Clean Cars and Trucks: The plan sets out far-reaching programs to incentivize the sale of millions of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.

[3] California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

- Increased Renewable Energy: California's electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under SB 350.
- Slashing Super-Pollutants: The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- Cleaner Industry and Electricity: California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.
- Cleaner Fuels: The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- Smart Community Planning: Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- Improved Agriculture and Forests: The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

The 2017 Scoping Plan also evaluates reductions of smog-causing pollutants through California's climate programs.

Senate Bill 100. Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

SB 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 13 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements. The Housing Element Update is required by the State to be completed within 18 months after RTP/SCS adoption or by October 2013.

On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS or Plan). The Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The Plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than $556.5 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2015 FTIP Consistency Amendment through Amendment 15-12 have been met.

On May 7, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy) for federal transportation conformity purposes only. In light of the COVID-19 pandemic, the Regional Council will consider approval of Connect SoCal in its entirety and for all other purposes within 120 days from May 7, 2020. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than $638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Assembly Bill 939 and Senate Bill 1374. Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any

local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Executive Order S-13-08. Executive Order S-13-08 indicates that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resource Agency 2009) was adopted, which is the "… first statewide, multi-sector, region-specific, and information-based climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. Executive Order B-30-15, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15. Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage and was signed into law on April 1, 2015.

Executive Order B-37-16. Executive Order B-37-16, continuing the State's adopted water reduction, was signed into law on May 9, 2016. The water reduction builds off the mandatory 25% reduction called for in EO B-29-15.

2.2.4 South Coast Air Quality Management District

The Project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

SCAQMD Threshold Development

The SCAQMD has established recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"). SCAQMD has published a five-tiered draft GHG threshold which includes a 10,000 metric ton of CO_2e per year for stationary/industrial sources and 3,000 metric tons of CO_2e per year significance threshold for residential/commercial projects (South Coast Air Quality Management District 2010c). Tier 3 is anticipated to be the primary

tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-precent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD's annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
  - All land use types: 3,000 MTCO2e per year
  - Based on land use types: residential is 3,500 MTCO2e per year; commercial is 1,400 MTCO2e per year; and mixed use is 3,000 MTCO2e per year
- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO2e/SP/year for projects and 6.6 MTCO2e/SP/year for plans;
  - Option 3, 2035 target: 3.0 MTCO2e/SP/year for projects and 4.1 MTCO2e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

2.2.5 City of Lake Elsinore

City of Lake Elsinore General Plan

Local jurisdictions, such as the City of Lake Elsinore, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2016 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality

impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and state standards. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The City of Lake Elsinore adopted their General Plan in December 2011. The Public Safety and Welfare Element in the General Plan, contains the following air quality-related goals and policies that are applicable to the proposed project:

Goal 1 Continue to coordinate with the Air Quality Management District and the City's Building Department to reduce the amount of fugitive dust that is emitted into the atmosphere from unpaved areas, parking lots, and construction sites.

Policy 1.1 Continue to implement requirements identified in the National Pollutant Discharge Elimination System (NPDES).

Goal 2 Work with regional and state governments to develop effective mitigation measures to improve air quality.

Policy 2.1 Support the SCAQMD in its development of improved ambient air quality monitoring capabilities and establishment of standards, thresholds, and rules to address, and where necessary mitigate, the air quality impacts of new development.

Policy 2.2 Support programs that educate the public about regional air quality issues, opportunities and solutions.

Policy 2.3 Evaluate the purchase of alternative fuel vehicles for official City vehicles.

City of Lake Elsinore Climate Action Plan

In compliance with State Assembly Bill AB32 and Executive Order S-3-05, the City of Lake Elsinore adopted a Climate Action Plan (CAP) on December 13, 2011. The City's CAP is a long range plan designed to reduce community-wide greenhouse gas (GHG) emissions from activities within the City limits. Specifically, the CAP is designed to:

- Benchmark Lake Elsinore's existing (2008) GHG emissions and projected emissions relative to state-wide emissions targets;
- Establish GHG emissions reduction strategies and measures to reduce the City's proportionate share of emissions to meet the state-wide targets identified in Assembly Bill 32 (AB32), and Executive Order S-3-05;

- Set forth procedures to monitor and verify the effectiveness of the CAP and require amendment if the CAP is not achieving targeted levels of emissions;

- Mitigate Lake Elsinore's GHG emissions impacts (by reducing GHG emissions consistent with the State of California via the California Environmental Quality Act (CEQA) Guidelines, AB32, and Executive Order S-3-05). The CEQA Guidelines encourage the adoption of plans or mitigation programs as a means of comprehensively addressing the cumulative impacts of projects (see CEQA Guidelines, Sections 15064(h)(3) and 15130(c); and,

- Serve as the programmatic tiering document for the purposes of CEQA within the City of Lake Elsinore for GHG emissions, and what applicable projects will be reviewed. If a proposed development project can demonstrate it is consistent with the applicable emissions reduction measures included in the CAP, the programs and standards that would be implemented as a result of the CAP, and the General Plan Update growth projections, the project's environmental review pertaining to GHG impacts may be streamlined as allowed by CEQA Guidelines Sections 15152 and 15183.5.

The CAP is not intended to limit future development or economic growth within Lake Elsinore; rather, by adopting a CAP, the City has established the compliance and performance standards that a project is to meet in order to satisfy State mandates. Discussions of the Project's consistency with the CAP's Greenhouse Gas Reduction Measures are discussed in Section 7.3.

The City of Lake Elsinore's CAP has a GHG emissions target that is specifically intended for use in evaluating the significance of GHG emissions from community-wide emissions. The City selected efficiency-based targets for the years governed by the General Plan to reduce community-wide emissions to 6.6 MT CO2e per service population per year by 2020 (a 22.3% reduction from the 2008 rate of 8.5 MT CO2e/SP) and to 4.4 MT CO2e per service population per year by 2030 (a 48.2% reduction from the 2008 rate of 8.5 MT CO2e/SP). These efficiency based targets represent the AB 32 and Executive Order S-3-05 targeted emissions levels for 2020 and 2030 on a per service population basis and they were derived by dividing the state-wide AB 32 targeted emissions level for 2020 and statewide Executive Order S-3-05 targeted emissions level for 2030 by the 2020 and 2030 state-wide service population respectively. Therefore, these targets represent the maximum quantity of emissions each resident and employee in the State of California could emit in 2020 and 2030 based on emissions levels necessary to achieve the state-wide AB 32 and Executive Order S-3- 05 GHG emissions reduction goals.

In order to meet the state-wide efficiency metric targets, the CAP must demonstrate that it can reduce community-wide emissions to 6.6 MT CO2e/SP (or 944,737 MT CO2e total based on an estimated 2020 service population of 143,142) by 2020 and 4.4 MT CO2e/SP (or 1,334,243 MT CO2e based on an estimated 2030 service population of 303,237) by 2030.

Therefore, to determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD draft local agency tier 3 threshold screening threshold of 3,000 MTCO2e.

The project will be subject to the latest requirements of the California Green Building and Title 24 Energy Efficiency Standards (currently 2019) which would reduce project-related greenhouse gas emissions.

3.0 Setting

3.1 Existing Physical Setting

The project site is located in the City of Lake Elsinore, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

3.1.1 Local Climate and Meteorology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthful air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air

pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloudtrap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the City of Lake Elsinore are in Table 3. Table 3 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 3: Meteorological Summary

Month	Temperature (˚F)		Average Precipitation (inches)
	Average High	Average Low	
January	66.0	38.9	2.56
February	67.7	40.9	2.68
March	72.3	43.4	1.77
April	77.7	47.0	0.67
May	83.8	52.5	0.20
June	91.0	56.5	0.05
July	97.7	61.0	0.16
August	98.6	62.5	0.05
September	93.4	58.9	0.17
October	83.4	52.0	0.59
November	70.4	42.1	0.90
December	65.8	38.5	2.11
Annual Average	**80.9**	**49.7**	**11.9**

Notes:
[1] Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805

3.1.2 Local Air Quality

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the City of Lake Elsinore in the Lake Elsinore (Area 25). The nearest air monitoring station to the project site is the

Lake Elsinore – W Flint Street Station (Lake Elsinore Station). The Lake Elsinore Station is located approximately 3.58 miles northwest of the project site, at 506 W Flint Street, Lake Elsinore; however this location does not provide all ambient weather data. Therefore, additional data was pulled from the SCAQMD historical data for the Lake Elsinore Area (Area 25) for both sulfur dioxide and carbon monoxide to provide the existing levels. Table 4 presents the monitored pollutant levels within the vicinity. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

Table 4: Local Area Air Quality Levels from the Lake Elsinore Monitoring Stations

Pollutant (Standard)[2]	Year		
	2016	**2017**	**2018**
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.124	0.121	0.116
Days > CAAQS (0.09 ppm)	**15**	**23**	**16**
Maximum 8-Hour Concentration (ppm)	0.093	0.098	0.095
Days > NAAQS (0.07 ppm)	**44**	**54**	**30**
Days > CAAQS (0.070 ppm)	**25**	**35**	**26**
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	1.2	1.2	1.1
Days > NAAQS (20 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	0.60	0.80	0.8
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppm)	0.051	0.049	0.041
Days > NAAQS (0.25 ppm)	0	0	0
Sulfur Dioxide:			
Maximum 1-Hour Concentration (ppm)	0.0019	*	*
Days > CAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour Concentration (ug/m^3)	99.7	134.1	105.3
Days > NAAQS (150 ug/m^3)	0	0	0
Days > CAAQS (50 ug/m^3)	*	*	*
Annual Average (ug/m^3)	22.4	23.6	23.3
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	No	No	No
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour Concentration (ug/m^3)	31.5	27.2	31.2
Days > NAAQS (35 ug/m^3)	*	*	*
Annual Average (ug/m^3)	9.7	11.3	6.7
Annual > NAAQS (15 ug/m3)	No	No	No
Annual > CAAQS (12 ug/m^3)	No	No	No

[1.] Source: obtained from https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year and /or https://www.arb.ca.gov/adam/topfour/topfour1.php

[2] CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million

[3] No data available.

The monitoring data presented in Table 4 shows that ozone and particulate matter (PM10) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone

During the 2016 to 2018 monitoring period, the State 1-hour concentration standard for ozone has been exceeded between 15 and 23 days each year at the Lake Elsinore Station. The State 8-hour ozone standard has been exceeded between 25 and 35 days each year over the past three years at the Lake Elsinore Station. The Federal 8-hour ozone standard has been exceeded between 30 and 54 days each year over the past three years at the Lake Elsinore Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Elsinore Area did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide

The Lake Elsinore Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Sulfur Dioxide

The Elsinore Area did not record an exceedance of the State SO_2 standards for the last three years.

Particulate Matter

During the 2016 to 2018 monitoring period, there was insufficient data for the State 24-hour concentration standard for PM10 at the Lake Elsinore Station. Over the same time period the Federal 24-hour and annual standards for PM10 have not been exceeded at the Lake Elsinore Station.

During the 2016 to 2018 monitoring period, there was insufficient data for the Federal 24-hour standard for PM2.5 at the Lake Elsinore Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

3.1.3 Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard. Table 5 lists the attainment status for the criteria pollutants in the basin.

Table 5: South Coast Air Basin Attainment Status

Pollutant	Averaging Time	National Standards[1]	Attainment Date[2]	California Standards[3]
1979 1-Hour Ozone[4]	1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 Originally 11/15/2010 (Not attained[4])	Extreme Nonattainment
1997 8-Hour Ozone[5]	8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024	Nonattainment
2008 8-Hour Ozone	8-Hour (0.075 ppm)	Nonattainment (Extreme)	12/31/2032	
2015 8-Hour Ozone	8-Hour (0.070 ppm)	Designations Pending	~2037	
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (Attained)	Attainment
NO_2[6]	1-Hour (100 ppb) Annual (0.053 ppm)	Unclassifiable/Attainment Attainment (Maintenance)	N/A (Attained) 9/22/1998 (Attained)	Attainment
SO_2[7]	1-Hour (75 ppb)	Designations Pending (expect Uncl./Attainment)	N/A (Attained)	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (Attained)	
PM10	24-Hour (150 µg/m^3)	Nonattainment (Maintenance)[8]	7/26/2013 (Attained)[8]	Nonattainment
PM2.5	24-Hour (35 µg/m^3)	Nonattainment (Serious)	12/31/2019	Unclassified
Lead	3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial)[9]	12/31/2015	Attainment

Notes:
[1] Obtained from http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassified/Attainment or Unclassifiable.
[2] A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.
[3] Obtained from http://www.arb.ca.gov/desig/adm/adm.htm.
[4] 1-hour O3 standard (0.12 ppm) was revoked, effective June 15, 2005 ; however, the Basin has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements.
[5] 1997 8-hour O_3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the 1997 O3 standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.
[6] New NO_2 1-hour standard, effective August 2, 2010; attainment designations June, 2013; annual NO_2 standard retained.
[7] The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations expected in 2012, with SSAB designated Unclassifiable/Attainment.
[8] Annual PM10 standard was revoked, effective December 18, 2006; redesignation request to Attainment of the 24-hour PM10 standard is pending with U.S. EPA
[9] Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.

3.2 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NO_2) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Table 6 provides a description of each of the greenhouse gases and their global warming potential.

Additional information is available: https://www.arb.ca.gov/cc/inventory/data/data.htm

<Table 6 on next page>

Table 6: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N_20),also known as laughing gas is a colorless gas. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N_20.
Methane	Methane (CH_4) is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 25.	A natural source of CH_4 is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms. Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone, therefore their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years. They have a global warming potential range of 6,200 to 9,500.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Notes:

1. Sources: Intergovernmental Panel on Climate Change 2014a and Intergovernmental Panel on Climate Change 2014b. https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

4.0 Modeling Parameters and Assumptions

4.1 Construction

Typical emission rates from construction activities were obtained from CalEEMod Version 2016.3.2 CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2014 computer program to calculate the emission rates specific for the southwestern portion of Riverside County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2014 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions were calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

The analysis assesses the emissions associated with the construction of the proposed project as indicated in Table 1. Per the project-specific traffic impact analysis (Trames Solutions, Inc.) the proposed project is to be operational in 2021; therefore, construction is estimated to start no sooner than the beginning of August 2020 and end by the end of September 2021. The phases of the construction activities which have been analyzed below are: 1) site preparation, 2) grading, 3) building, 4) paving, and 5) architectural coating. For details on construction modeling and construction equipment for each phase, please see Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 6.05 acres) and the fact that the project won't export more than 5,000 cubic yards of material a day a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 is required.

4.2 Operations

Operational or long-term emissions occur over the life of the Project. Both mobile and area sources generate operational emissions. Area source emissions arise from consumer product usage, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile source emissions from motor vehicles are the largest single long-term source of air pollutants from the operation of the Project. Small amounts of emissions would also occur from area sources such as the consumption of natural gas for heating, hearths, from landscaping emissions, and consumer product usage. The operational emissions were estimated using the latest version of CalEEMod.

Mobile Sources
Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project are based upon the trip generation rates give in the project-specific traffic impact analysis (Trames Solutions, Inc.) which uses the ITE 10th Trip Generation Manual. The traffic study shows a trip generation rate of 103.75 trips per fuel pump for the gas station with convenience store (taking into consideration the 50 percent daily pass-by trip reduction and the 10 percent internal interaction reduction), 147.99 trips per thousand square feet for the car wash (taking into consideration the 35 percent daily pass-by trip reduction and the 10 percent internal interaction reduction), 10.16 trips per thousand square feet for the office use (taking into consideration the 10 percent internal interaction reduction), 27.95 trips per thousand square feet for the automobile care center (taking into consideration the 10 percent internal interaction reduction), and 211.78 trips per thousand square feet for the drive-through restaurants (taking into consideration the 50 percent daily pass-by trip reduction and the 10 percent internal interaction reduction).

The program then applies the emission factors for each trip which is provided by the EMFAC2014 model to determine the vehicular traffic pollutant emissions. The CalEEMod default trip lengths were used in this analysis. Please see CalEEMod output comments sections in Appendix A and B for details.

Area Sources
Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after January 1, 2014 will be limited to an average of 50 grams per liter or less and the CalEEMod model default was utilized as the new model takes this rule into account.

Energy Usage
2016.3.2 CalEEMod defaults were utilized.

4.3 Localized Construction Analysis

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2. The maximum number of acres disturbed on the peak day.
3. Any emission control devices added onto off-road equipment.
4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The construction equipment showing the equipment associated with the maximum area of disturbance is shown in Table 7.

Table 7: Construction Equipment Assumptions[1]

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Site Preparation	Tractors/Loaders/Backhoes	1	0.5	0.5
Total Per Phase				0.5
Grading	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	3	0.5	1.5
Total Per Phase				2.5

Notes:

[1.] Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2

As shown in Table 7, the maximum number of acres disturbed in a day would be 2.5 acres during grading.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were based on the Elsinore source receptor area (SRA 25) and a disturbance of 2 acres per day, to be conservative, at a distance of 25 meters (82 feet). According to LST methodology, any

receptor located closer than 25 meters should be based on the 25 meter threshold. The closest receptors are located approximately 100 feet (~30 meters) east of the site; therefore, to be conservative, the 25 meters threshold was used.

4.4 Localized Operational Analysis

For operational emissions, the screening tables for a disturbance area of 5 acres and a distance of 25 meters were used to determine significance. The tables were compared to the project's onsite operational emissions.

5.0 Thresholds of Significance

5.1 Air Quality Thresholds of Significance

5.1.1 CEQA Guidelines for Air Quality

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. There are daily emission thresholds for construction and operation of a proposed project in the basin.

5.1.2 Regional Significance Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions are established for the Basin:

- 75 pounds per day (lbs/day) of VOC
- 100 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Projects in the basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under SCAQMD guidelines.

5.1.3 Regional Significance Thresholds for Operational Emissions

The daily operational emissions significance thresholds for the basin are as follows:

- 55 pounds per day (lbs/day) of VOC
- 55 lbs/day of NO_x

- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Local Microscale Concentration Standards The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

5.1.4 Thresholds for Localized Significance

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO2, CO, PM10, and PM2.5.

The emission thresholds were calculated based on the Elsinore source receptor area (SRA 25) and a disturbance of 2 acres per day at a distance of 25 meters (82 feet), for construction and 5 acres a day for screening of localized operational emissions.

5.2 Greenhouse Gas Thresholds of Significance

5.2.1 CEQA Guidelines for Greenhouse Gas

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on greenhouse gases, the type, level, and impact of emissions generated by the project must be evaluated.

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

(b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency. As previously discussed (Section 2.2.4 of this report), SCAQMD has drafted interim thresholds. The screening threshold of 3,000 MTCO2e per year for all land uses was used in this analysis. Furthermore, the project's emissions were also evaluated per the project level worksheet provided in Appendix D of the City of Lake Elsinore CAP.

5.3 Toxic Air Contaminants

The threshold for toxic air contaminants (TACs) has a maximum incremental cancer risk of 10 per million and a non-cancer (acute and chronic) hazard index of 1.0 or greater. An exceedance to these values would be considered a significant impact.

6.0 Air Quality Emissions Impact

6.1 Construction Air Quality Emissions Impact

The latest version of CalEEMod was used to estimate the onsite and offsite construction emissions. The emissions incorporate Rule 402 and 403. Rule 402 and 403 (fugitive dust) are not considered mitigation measures as the project by default is required to incorporate these rules during construction.

6.1.1 Regional Construction Emissions

The construction emissions for the project would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in Table 8, and therefore would be considered less than significant.

Table 8: Regional Significance - Construction Emissions (pounds/day)

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Site Preparation						
On-Site[2]	0.21	2.11	2.28	0.00	0.15	0.12
Off-Site[3]	0.09	0.06	0.73	0.00	0.20	0.05
Total	**0.30**	**2.16**	**3.01**	**0.01**	**0.36**	**0.18**
Grading						
On-Site[2]	2.43	26.39	16.05	0.03	3.83	2.48
Off-Site[3]	0.08	0.05	0.60	0.00	0.17	0.05
Total	**2.51**	**26.43**	**16.66**	**0.03**	**4.00**	**2.53**
Building Construction						
On-Site[2]	2.12	19.19	16.85	0.03	1.12	1.05
Off-Site[3]	0.67	4.75	5.16	0.02	1.52	0.43
Total	**2.79**	**23.94**	**22.01**	**0.05**	**2.63**	**1.48**
Paving						
On-Site[2]	1.79	12.92	14.65	0.02	0.68	0.62
Off-Site[3]	0.07	0.04	0.55	0.00	0.17	0.05
Total	**1.86**	**12.96**	**15.21**	**0.02**	**0.85**	**0.67**
Architectural Coating						
On-Site[2]	20.27	1.53	1.82	0.00	0.09	0.09
Off-Site[3]	0.10	0.06	0.81	0.00	0.25	0.07
Total	**20.38**	**1.59**	**2.63**	**0.01**	**0.34**	**0.16**
Total of overlapping phases[4]	**25.03**	**38.48**	**39.85**	**0.08**	**3.82**	**2.31**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds	No	No	No	No	No	No

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] On-site emissions from equipment operated on-site that is not operated on public roads.
[3] Off-site emissions from equipment operated on public roads.
[4] Construction, architectural coatings and paving phases may overlap.

6.1.2 Localized Construction Emissions

The data provided in Table 9 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 9: Localized Significance – Construction

Phase	On-Site Pollutant Emissions (pounds/day)[1]			
	NOx	**CO**	**PM10**	**PM2.5**
Site Preparation	2.11	2.28	0.15	0.12
Grading	26.39	16.05	3.83	2.48
Building Construction	19.19	16.85	1.12	1.05
Paving	12.92	14.65	0.68	0.62
Architectural Coating	1.53	1.82	0.09	0.09
Total of overlapping phases	33.63	33.32	1.89	1.77
SCAQMD Threshold for 25 meters (82 feet) or less[2]	**234**	**1,100**	**7**	**4**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for two acres in Lake Elsinore Source Receptor Area (SRA 25). Project will disturb a maximum of 2.5 acres per day (see Table 7).
[2] The nearest sensitive receptors are located approximately 100 feet (~30 meters) to the east of the project site; therefore, to be conservative, the 25 meter threshold has been used.

6.1.3 Odors

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. 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 of the proposed project.

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from the service station operations. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project. Furthermore, Gasoline dispensing facilities are required to use Phase I/II EVR (enhanced vapor recovery) systems. Vehicle emissions are vapor recovery systems are addressed in Section 6.2.2.

6.1.4 Construction-Related Toxic Air Contaminant Impact

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the relatively limited number of heavy-duty construction equipment and construction schedule, the proposed project would not result in a long-term substantial source of toxic air containment emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

6.2 Operational Air Quality Emissions Impact

6.2.1 Regional Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of CalEEMod model. The operating emissions were based on year 2021, which is the anticipated opening year for the project per the project-specific traffic impact analysis (Trames Solutions, Inc.). The summer and winter emissions created by the proposed project's long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 10.

Table 10: Regional Significance - Unmitigated Operational Emissions (lbs/day)

Activity	Pollutant Emissions (pounds/day)[1]					
	VOC	NOx	CO	SO2	PM10	PM2.5
Area Sources[2]	0.91	0.00	0.01	0.00	0.00	0.00
Energy Usage[3]	0.09	0.83	0.70	0.00	0.06	0.06
Mobile Sources[4]	6.54	44.06	57.10	0.23	15.29	4.20
Total Emissions	**7.55**	**44.89**	**57.81**	**0.23**	**15.36**	**4.26**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from on-site natural gas usage.
[4] Mobile sources consist of emissions from vehicles and road dust.

Table 10 provides the project's unmitigated operational emissions. Table 10 shows that the project does not exceed the SCAQMD daily emission threshold and regional operational emissions are considered to be less than significant.

6.2.2 Localized Operational Emissions

Table 11 shows the calculated emissions for the proposed operational activities compared with appropriate LSTs. The LST analysis only includes on-site sources; however, the CalEEMod software outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in Table 11 include all on-site project-related stationary sources and 10% of the project-related new mobile sources. This percentage is an estimate of the amount of project-related new vehicle traffic that will occur on-site.

Table 11: Localized Significance – Unmitigated Operational Emissions

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Area Sources[2]	0.00	0.01	0.00	0.00
Energy Usage[3]	0.83	0.70	0.06	0.06
On-Site Vehicle Emissions[4]	4.41	5.71	1.53	0.42
Total Emissions	**5.24**	**6.41**	**1.59**	**0.48**
SCAQMD Threshold for 25 meters (82 feet)[5]	**371**	**1,965**	**4**	**2**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Lake Elsinore Source Receptor Area (SRA 25).
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from generation of electricity and on-site natural gas usage.
[4] On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.
[5] The nearest sensitive receptors are located approximately 100 feet (~30 meters) to the east of the project site; therefore, to be conservative, the 25 meter threshold has been used.

Table 11 indicates that the local operational emission would not exceed the LST thresholds at the nearest sensitive receptors, located adjacent to the project. Therefore, the project will not result in significant Localized Operational emissions.

6.3 CO Hot Spot Emissions

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented in above in Section 5.0.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above in Section 5.0, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced

speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no "hot spots" anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere in Riverside County. If the worst-case intersections in the air basin have no "hot spot" potential, any local impacts will be below thresholds.

The traffic study showed that the highest peak hour intersection volume is 1,805 trips per day for the existing plus ambient plus project plus cumulative (EAPC 2021) project PM scenario. The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard.[4] The volume of traffic at project buildout with cumulative projects would be well below 100,000 vehicles and below the necessary volume to even get close to causing a violation of the CO standard. Therefore no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

6.4 Cumulative Regional Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

The project area is out of attainment for both ozone and PM10 particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. The project does not exceed any of the thresholds of significance and therefore is considered less than significant.

[4] South Coast Air Quality Management District (SCAQMD). California State Implementation Plan for Carbon Monoxide (CO Plan), 1992 (revised 1994 and approved by EPA 1997)

6.5 Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

A. Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that, long-term operations impacts will not result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

B. Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2016-2040 Regional Transportation/Sustainable Communities Strategy, prepared by SCAG, 2016, includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater

mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Lake Elsinore Land Use Plan defines the assumptions that are represented in the AQMP.

The proposed project is currently zoned Specific Plan Area (SPA) and the site's current land use classification is Specific Plan according to the City of Lake Elsinore General Plan Zoning Map and Land Use Plan. In addition, the City of Lake Elsinore East Lake Specific Plan also identifies the land use classification of the Site as Specific Plan. Furthermore, per Appendix A Specific Plan Land Uses and Summaries of the City's General Plan, with incorporation of the amendments made to the East Lake Specific Plan, the land use designation of the site is General Commercial. This is per the Consolidated East Lake Specific Plan Land Use Plan (December 13, 2011).

The proposed project is to develop the site with commercial uses including a retail use with gasoline service station, fast food restaurants with drive-through, an automobile care center, a car wash, and office uses. Therefore, the proposed project would not result in an inconsistency with the land use designation in the City's General Plan. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

7.0 Greenhouse Gas Impact Analysis

7.1 Construction Greenhouse Gas Emissions Impact

The greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 12. The emissions are from all phases of construction. The total construction emissions amortized over a period of 30 years are estimated at 18.56 metric tons of CO_2e per year. Annual CalEEMod output calculations are provided in Appendix B.

Table 12: Construction Greenhouse Gas Emissions

Activity	Emissions ($MTCO_2e$)[1]		
	Onsite	Offsite	Total
Site Preparation	1.4	0.8	2.2
Grading	26.3	1.4	27.6
Building Construction	268.0	233.0	501.0
Paving	20.2	1.3	21.5
Coating	2.6	2.0	4.5
Total	318.4	238.5	556.8
Averaged over 30 years[2]	11	8	18.56

Notes:
[1.] $MTCO_2e$=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane and nitrous oxide).
[2.] The emissions are averaged over 30 years because the average is added to the operational emissions, pursuant to SCAQMD.
* CalEEMod output (Appendix B)

7.2 Operational Greenhouse Gas Emissions Impact

Operational emissions occur over the life of the project. The operational emissions for the project are 4,184.7 metric tons of CO_2e per year as shown in Table 13. These emissions would exceed the SCAQMD screening threshold for all land uses of 3,000 metric tons of CO_2e per year. Therefore, mitigation is required.

<Table 13 next page>

Table 13: Opening Year Unmitigated Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)[1]					
	Bio-CO2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[2]	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage[3]	0.00	391.16	391.16	0.01	0.00	392.95
Mobile Sources[4]	0.00	3,639.36	3,639.36	0.24	0.00	3,645.40
Solid Waste[5]	34.63	0.00	34.63	2.05	0.00	85.78
Water[6]	1.96	33.49	35.45	0.20	0.01	42.01
Construction[7]	0.00	18.48	18.48	0.00	0.00	18.56
Total Emissions	36.58	4,082.49	4,119.08	2.51	0.01	**4,184.70**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**Yes**

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
[3] Energy usage consist of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Construction GHG emissions based on a 30 year amortization rate.

The data provided in Table 14 shows that the proposed project's mitigated emissions would be reduced to 2,511.01 $MTCO_2e$ per year. As shown in Table 14, with incorporation of mitigation requiring the project to provide sidewalks on- and connecting off-site, compliance with regulation including reduction of indoor water use by 30 percent per CalGreen Standards and the City's CAP and diversion of 75 percent of the project's generated waste away from landfills per AB 341, and incorporation of the CAPCOA-based land use and site enhancement reduction measures: LUT-1 Increased Density, LUT-4 Improved Destination Accessibility, and LUT-5 Increase Transit Accessibility (please see CalEEMod annual output for details), the proposed project's emissions would no longer exceed the SCAQMD screening threshold for all land uses of 3,000 metric tons of CO_2e per year. Therefore, with incorporation of mitigation, the proposed project's GHG emissions are considered to be less than significant.

<Table 14, next page>

Table 14: Opening Year Mitigated Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)[1]					
	Bio-CO2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Area Sources[2]	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage[3]	0.00	391.16	391.16	0.01	0.00	392.95
Mobile Sources[4]	0.00	2,041.34	2,041.34	0.20	0.00	2,046.27
Solid Waste[5]	8.66	0.00	8.66	0.51	0.00	21.45
Water[6]	1.37	25.81	27.18	0.14	0.00	31.78
Construction[7]	0.00	18.48	18.48	0.00	0.00	18.56
Total Emissions	10.03	2,476.79	2,486.82	0.87	0.01	**2,511.01**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**No**

Notes:
[1] Source: CalEEMod Version 2016.3.2
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
[3] Energy usage consist of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Construction GHG emissions based on a 30 year amortization rate.

7.3 Greenhouse Gas Plan Consistency

The City of Lake Elsinore adopted the City of Lake Elsinore Climate Action Plan (Climate Action Plan), on December 13, 2011. The Climate Action Plan provides specific measures to be implemented in new developments to reduce GHG emissions as well as a GHG emissions reduction target based on a community-wide emissions reduction to 6.6 MTCO2e per service population per year by 2020 and 4.4 MTCO2e per service population per year by 2030.

Appendix D of the CAP contains a project level worksheet that an applicant may use to demonstrate consistency with the General Plan growth potential and CAP. The following are the criteria for determining consistency with the CAP:

1. Is the project consistent with the General Plan land use designation?

   The proposed project is currently zoned Specific Plan Area (SPA) and the site's current land use classification is Specific Plan according to the City of Lake Elsinore General Plan Zoning Map and Land Use Plan. In addition, the City of Lake Elsinore East Lake Specific Plan also identifies the land use classification of the Site as Specific Plan. Furthermore, per Appendix A Specific Plan Land Uses and Summaries of the City's General Plan, with incorporation of the amendments made to the East Lake Specific Plan, the land use designation of the site is General Commercial. This is per the Consolidated East Lake Specific Plan Land Use Plan (December 13, 2011).

   The proposed project is to develop the site with commercial uses including a retail use with gasoline service station, fast food restaurants with drive-through, an automobile care center, a car wash, and office uses. Therefore, the proposed project is anticipated to be consistent with

the land uses specified in the City of Lake Elsinore's General Plan. Therefore, the project meets this criterion.

2. Is the project consistent with the General Plan population and employment projections for the site, upon which the CAP modeling is based?

   The City of Lake Elsinore General Plan's build-out of population, housing and employment have anticipated the development of the Project site as a Specific Plan area with a land use of general commercial. Therefore, this buildout projection was used in the preparation of the CAP. Therefore, the project meets this criterion.

3. Does the project incorporate the following CAP measures as binding and enforceable components of the project? Until these measures have been formally adopted by the City and incorporated in to applicable codes, the requirements must be incorporated as mitigation measures applicable to the project (CEQA Guidelines, Section 15183.5(b)(2)).

   Table 15 provides a list of the reduction measures for new non-residential developments included in CAP Appendix D. Table 15 also provides a project consistency analysis of each measure. Mitigation Measures 1 through 8 require that the project implement CAP measures T-1.2, T-1.4, T-1.5, T-2.1, E-1.1, E-1.2, E-1.3, E-4.1, E-4.2, and S-1.4. Therefore, the Project meets this criterion.

Based on the analysis above, with implementation of mitigation, the Project will be consistent with the goals, policies and implementation programs contained in the adopted City's CAP. Therefore, the Project will be consistent and not conflict with an applicable GHG reduction plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gases with compliance with Mitigation Measures 1 through 8.

<Table 15, next page>

Table 15: GHG Reduction Measures for Commercial Developments and Project Consistency[1]

Local Measure	Measure Description	Project Consistency
T-1.2 Pedestrian Infrastructure	Through the development review process, require the installation of sidewalks along new and reconstructed streets. Also require new subdivisions and large developments to provide sidewalks or paths to internally link all uses where applicable and provide connections to neighborhood activity centers, major destinations, and transit facilities contiguous with the project site; implement through conditions of approval.	Consistent. Mitigation Measure 1 requires the installation of sidewalks along all new streets as well as internal sidewalks to connect to neighborhood activity centers, major destinations, and transit facilities.
T-1.4 Bicycle Infrastructure	Through the development review process, require new development, as applicable, to implement and connect to the network of Class I, II and III bikeways, trails and safety features identified in the General Plan, Bike Lane Master Plan, Trails Master Plan and Western Riverside County Non-Motorized Transportation plan; implement through conditions of approval. The City will also continue to pursue and utilize funding when needed to implement portions of these plans.	Consistent. Mitigation Measure 2 requires the installation of a bike lane along the project site boundary with Corydon Street and Mission Trail to connect to the Class II bikeway currently located on Corydon Street and Mission Trail. See the Lake Elsinore General Plan Circulation Element, Figure 2.5 Bikeway Plan.
T-1.5 Bicycle Parking	Through the development review process, enforce the following short-term and long-term bicycle parking standards for new non-residential development (consistent with 2010 California Green Building Code [CalGreen], Section 5.106.4), and implement through conditions of approval: *Short-Term Bicycle Parking:* If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitor entrance, readily visible to passers-by, for 5% of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack. *Long-Term Bicycle Parking:* For buildings with over 10 tenantoccupants, provide secure bicycle parking for 5% of tenant-occupied motorized vehicle parking capacity, with a minimum of one space.	Consistent. Mitigation Measure 6 requires the installation of permanently anchored bicycle racks within 200 feet of the visitor entrance and readily visible to passers-by for at least 5 percent of visitor motorized vehicle parking capacity (with a minimum of one two-bike capacity rack).
T-2.1 Desginated Parking for Fuel-Efficient Vehicles	Amend the Municipal Code to require that new non-residential development designate 10% of total parking spaces for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles (consistent with CalGreen Tier 1, Sections A5.106.5.1 and A5.106.5.3), and implement through conditions of approval. Parking stalls shall be marked —Clean Air Vehicle.	Consistent. Mitigation Measure 7 requries the applicant to designate 10% of total parking spaces for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles.

E-1.1 Tree Planting	Through the development review process, require new development to plant at minimum one 15-gallon nondeciduous, umbrella-form tree per 30 linear feet of boundary length near buildings, per the Municipal Code. Trees shall be planted in strategic locations around buildings or to shade pavement in parking lots and streets.	Consistent. Mitigation Measure 4 requires the applicant to prepare a landscape plan that meets the requirement to plant a minimum of one 15 gallon nondeciduous umbrella form tree per 30 linear feet of boundary length.
E-1.2 Cool Roof Requirements	Amend the City Municipal Code to require new non-residential development to use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index (SRI)3 consistent with CalGreen Tier 1 values (Table A5.106.11.2.1), and implement through conditions of approval.	Consistent. Mitigation Measure 8 requires the applicant to use roofing materials having solar reflectance, thermal emittance or Solar Reflectance Index (SRI)3 consistent with CalGreen Tier 1 values (Table A5.106.11.2.1).
E-1.3 Energy Efficient Building Standards	Adopt an ordinance requiring that all new construction exceed the California Energy Code requirements, based on the 2008 Energy Efficiency Standards by 15% (consistent with CalGreen Tier 1), through either the performance based or prescriptive approach described in the California Green Building Code; implement through conditions of approval. Alternately, a solar photovoltaic system and/or solar water heating may be used to assist in meeting all or a portion of the 15% requirement.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2016 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The proposed project will be subject to these mandatory standards.
E-4.1 Landscaping	Through the development review process, enforce the City's Assembly Bill 1881 Landscaping Ordinance; implement through conditions of approval.	Consistent. Mitigation Measure 4 is provided that requires the Landscape Plan to be designed to be consistent with the requirements of AB 1881.
E-4.2 Indoor Water Conservation Requirements	Amend the City's Uniform Building Code to require development projects to reduce indoor water consumption by 30% (consistent with CalGreen Tier 1, Section A5.303.2.3.1), and implement through conditions of approval.	Consistent. The proposed project will utilize water fixtures that are sold in California that are required to meet CCR Title 20, Sections 1601 – 1608 that require all water fixtures to be low flow and provide an average water use reduction of 30%. However, in order to make sure these types of fixtures are used on the site, the project also includes Mitigation Measure 3 which states the project applicant shall require that all faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 30%.
S-1.4 Construction and Demolition Waste Diversion	Amend the Municipal Code to require development projects to divert, recycle or salvage at least 65% of nonhazardous construction and demolition debris generated at the site by 2020 (consistent with CalGreen Tier 1, Section A5.408.3.1). Require all construction and demolition projects to be	Consistent. Mitigation Measure 5 requires the building contractor for the proposed project to recycle a minimum of 65 percent of the nonhazardous construction debris and to prepare a waste management plan that details how

	accompanied by a waste management plan for the project and a copy of the completed waste management report shall be provided upon completion.	this is achieved.

Notes:
[1] Source: City of Lake Elsinore Climate Action Plan

8.0 Health Risk Assessment

CARB (and CAPCOA) recommend a 50-foot separation between gas stations and sensitive receptors; therefore, the approximately 150-foot separation from the single-family residential dwelling units to the east to the fueling pumps and approximately 270-foot separation from the single-family residential dwelling units to the east to the underground storage tanks should be more than adequate. Furthermore, the attached (Appendix C) SCAQMD gasoline station HRA screening tables show that the MICR at residential receptors 25 meters (the pumps are located further away @ approximately 45 meters) from the fuel source would not even exceed 2.978 in a million (per 1,000,000 gallons of through put); which is a reasonable assumption given the size of the project and number of pumps). The proposed project is estimated to have approximately 1.87MM gallons of through put per year which equates to an approximate 5.57 in a million MICR, at a distance of approximately 25 meters. The risk is below SCAQMD's 10 in a million threshold and therefore no additional mitigation is required.

Furthermore, the project includes the construction and operation of a convenience market with 16 fuel pumps. The fuel pump-portion of the project will be permitted by SCAQMD and fuel-related emissions will be regulated by the SCAQMD Rule 461 and be required to obtain a Permit To Operate. Gasoline dispensing facilities are required to use Phase I/II EVR (enhanced vapor recovery) systems. Phase II EVR have an average efficiency of 95.1 percent and Phase I EVR have an average efficiency of 98 percent. Therefore, the potential for fugitive VOC or TAC emissions from the gasoline pumps is negligible. As such, the project will not be a source of toxic air contaminants or fugitive VOC emissions and sensitive receptors (located as close as approximately 150 feet from the proposed gasoline fueling pumps) would not be exposed to toxic sources of air pollution. The separating distance between the gas station and closest sensitive receptors is greater than the SCAQMD's minimum 50-foot separation.

According to the ARB's: *Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities (12/23/2013)*[5], both Phase I and Phase II EVR systems have a minimum 95.1% efficiency at capturing emissions. Emission inventory is based upon two (2) factors: 8.4 lbs of TOG per thousand gallons dispensed (lbs/kgal) and 0.74 lbs/kgal for Gasoline Dispensing Facilities with Phase II pre-EVR vapor recovery.

These factors are based upon pre-EVR vapor recovery systems. Assuming a 95% vapor recovery rate, the majority of the emissions would be captured and the additional VOCs that would potentially escape these mandatory recovery systems is anticipated to be relatively small. Per Table 10, the project's operational VOC emissions are 7.55 lbs/day. At 5,123 gallons per day the calculated uncontrolled ORVR VOC would be 43 lbs/day. Even if an additional 43 lbs/day (the **uncontrolled** [no ORVR or phase II] vehicle fueling emission factor for each 1,000 gallons pumped) were added to the project's operational VOC emissions), the total emissions of 50.6 lbs/day would not even exceed the SCAQMD's operational threshold of significance of 55 lbs per day for VOC. However, the vehicle fueling

[5] https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf%20umbrella%20document%20-%2020%20nov%202013.pdf

emissions factor with ORVR and Phase II EVR in place is 0.021 lbs per thousand gallons which equates to 0.107 lbs/day. The emissions amount is below the VOC threshold of significance and the impact is less than significant. Furthermore, both ORVR and Phase II EVRs are required per regulation in California.

To exceed the VOC daily emissions threshold the gas pumps at the project site would have to pump over a million gallons of fuel per day to exceed the daily VOC threshold.

9.0 References

The following references were used in the preparing this analysis.

California Air Pollution Control Officers Association
2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board
2008 Resolution 08-43

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2008 Climate Change Scoping Plan, a framework for change.

2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document

2013 Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities

2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May.

2018 Historical Air Quality, Top 4 Summary

City of Lake Elsinore
2011 City of Lake Elsinore Climate Action Plan. December 13.

2011 City of Lake Elsinore General Plan. December 13.

Governor's Office of Planning and Research
2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2009 CEQA Guideline Sections to be Added or Amended

Office of Environmental Health Hazard Assessment
2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

South Coast Air Quality Management District

1993 CEQA Air Quality Handbook

2005 Rule 403 Fugitive Dust
2007 2007 Air Quality Management Plan

2008 Final Localized Significance Threshold Methodology, Revised

2011 Appendix A Calculation Details for CalEEMod

2012 Final 2012 Air Quality Management Plan

2016 Final 2016 Air Quality Management Plan

Trames Solutions, Inc.
2020 Lake Elsinore Mission Trails/Corydon C-Store Traffic Impact Analysis, City of Lake Elsinore, CA. January 20.

Appendix A:

CalEEMod Daily Emission Output

06411902 Corydon Gateway Development

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	11.52	1000sqft	0.26	11,520.00	0
Other Asphalt Surfaces	4.10	Acre	4.10	178,596.00	0
Other Non-Asphalt Surfaces	1.13	Acre	1.13	49,222.80	0
Fast Food Restaurant w/o Drive Thru	4.01	1000sqft	0.09	4,007.00	0
Fast Food Restaurant with Drive Thru	5.30	1000sqft	0.12	5,298.00	0
Automobile Care Center	11.52	1000sqft	0.26	11,520.00	0
Gasoline/Service Station	16.00	Pump	0.09	4,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

06411902 Corydon Gateway Development - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - 6.05 ac w/ 5.298 TSF fast-food w/ drive-thru, 16 pump gas station (4,088 sf mrkt), 11.52 TSF office, 11.52 TSF auto care, 4.007 TSF car wash, 1.13 ac landscape/basin, & rmndr ~4.01 ac paving(includes 121 space prkg lot).

Construction Phase - CalEEMod default construction timing utilized. Site is vacant, no demolition needed.

Off-road Equipment -

Off-road Equipment - Site Prep of only ~10% of site to remove existing vegetation etc.; therefore, only ~10% CalEEMod default equipment needed.

Grading - Site anticipated to balance. Site prep of ~0.5 acres (~10% site).

Vehicle Trips - TIA, 103.75trips/TSF gas (w/50%pass&10%int), 10.16trips/TSF office (w/10%int), 27.95trips/TSF auto (w/10%int), 211.78trips/TSF fast (w/50%pass&10%int), & 147.99trips/TSF wash (w/35%pass&10%int). Passby wash/gas/fast changed to 0 & split primary/diverted.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Mobile Land Use Mitigation - Sidewalks on/off site. Site is 0.06 miles NW RTA Mission Trail FS Corydon & 3.03 miles SE dwntwn Lake Elsinore. Comm retail =500sf/1emp=24,913sf/500=50emp & Comm office =300sf/1emp=11,520sf/300=38emp. 88emp/0.84ac(job ac-bldgs only)= ~104.8 emp/job acre

Water Mitigation - Per CalGreen Standards & City of Lak Elsinore CAP Measure E-4.2, 230% indoor water reduction.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	2,258.80	4,088.00
tblLandUse	LotAcreage	0.05	0.09
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblVehicleTrips	DV_TP	37.00	43.00
tblVehicleTrips	DV_TP	21.00	46.00
tblVehicleTrips	DV_TP	27.00	57.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00

tblVehicleTrips	PR_TP	51.00	57.00
tblVehicleTrips	PR_TP	29.00	54.00
tblVehicleTrips	PR_TP	14.00	43.00
tblVehicleTrips	ST_TR	23.72	27.95
tblVehicleTrips	ST_TR	696.00	147.99
tblVehicleTrips	ST_TR	722.03	211.78
tblVehicleTrips	ST_TR	168.56	103.75
tblVehicleTrips	ST_TR	2.46	10.16
tblVehicleTrips	SU_TR	11.88	27.95
tblVehicleTrips	SU_TR	500.00	147.99
tblVehicleTrips	SU_TR	542.72	211.78
tblVehicleTrips	SU_TR	168.56	103.75
tblVehicleTrips	SU_TR	1.05	10.16
tblVehicleTrips	WD_TR	23.72	27.95
tblVehicleTrips	WD_TR	716.00	147.99
tblVehicleTrips	WD_TR	496.12	211.78
tblVehicleTrips	WD_TR	168.56	103.75
tblVehicleTrips	WD_TR	11.03	10.16

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					
2020	2.7893	26.4310	22.0126	0.0501	6.7200	1.2744	7.9945	3.4120	1.1725	4.5844	0.0000	4,926.9661	4,926.9661	0.9333	0.0000	4,945.5204
2021	20.3779	21.7030	21.2780	0.0496	1.4825	0.9733	2.4558	0.3994	0.9151	1.3145	0.0000	4,878.2743	4,878.2743	0.7275	0.0000	4,896.4616
Maximum	**20.3779**	**26.4310**	**22.0126**	**0.0501**	**6.7200**	**1.2744**	**7.9945**	**3.4120**	**1.1725**	**4.5844**	**0.0000**	**4,926.9661**	**4,926.9661**	**0.9333**	**0.0000**	**4,945.5204**

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					
2020	2.7893	26.4310	22.0126	0.0501	2.7231	1.2744	3.9975	1.3578	1.1725	2.5303	0.0000	4,926.9661	4,926.9661	0.9333	0.0000	4,945.5204
2021	20.3779	21.7030	21.2780	0.0496	1.4825	0.9733	2.4558	0.3994	0.9151	1.3145	0.0000	4,878.2743	4,878.2743	0.7275	0.0000	4,896.4616
Maximum	**20.3779**	**26.4310**	**22.0126**	**0.0501**	**2.7231**	**1.2744**	**3.9975**	**1.3578**	**1.1725**	**2.5303**	**0.0000**	**4,926.9661**	**4,926.9661**	**0.9333**	**0.0000**	**4,945.5204**

	ROG	NOx	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**	**48.73**	**0.00**	**38.25**	**53.90**	**0.00**	**34.82**	**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	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Energy	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556
Mobile	6.5447	44.0628	57.1028	0.2283	15.1342	0.1554	15.2896	4.0494	0.1458	4.1952		23,329.1733	23,329.1733	1.4356		23,365.0633
Total	**7.5485**	**44.8932**	**57.8058**	**0.2333**	**15.1342**	**0.2186**	**15.3527**	**4.0494**	**0.2089**	**4.2583**		**24,325.6193**	**24,325.6193**	**1.4547**	**0.0183**	**24,367.4314**

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	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Energy	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556
Mobile	5.7877	36.7369	33.9264	0.1274	6.8675	0.0846	6.9521	1.8375	0.0793	1.9168		13,072.0910	13,072.0910	1.1522		13,100.8953
Total	**6.7915**	**37.5673**	**34.6294**	**0.1324**	**6.8675**	**0.1477**	**7.0152**	**1.8375**	**0.1424**	**1.9799**		**14,068.5370**	**14,068.5370**	**1.1713**	**0.0183**	**14,103.2634**

	ROG	NOx	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	**10.03**	**16.32**	**40.09**	**43.26**	**54.62**	**32.40**	**54.31**	**54.62**	**31.84**	**53.51**	**0.00**	**42.17**	**42.17**	**19.48**	**0.00**	**42.12**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2020	8/14/2020	5	10	
2	Grading	Grading	8/15/2020	9/11/2020	5	20	
3	Building Construction	Building Construction	9/12/2020	7/30/2021	5	230	
4	Paving	Paving	7/31/2021	8/27/2021	5	20	
5	Architectural Coating	Architectural Coating	8/28/2021	9/24/2021	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 10

Acres of Paving: 5.23

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,650; Non-Residential Outdoor: 18,217; Striped Parking Area: 13,669 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	43.00	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	22.00	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 - 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					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0530**	**0.1331**	**0.1862**	**5.7300e-003**	**0.1225**	**0.1282**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 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	0.0916	0.0542	0.7258	1.9900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		198.2870	198.2870	5.0800e-003		198.4141
Total	**0.0916**	**0.0542**	**0.7258**	**1.9900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**198.2870**	**198.2870**	**5.0800e-003**		**198.4141**

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					0.0207	0.0000	0.0207	2.2300e-003	0.0000	2.2300e-003			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0207**	**0.1331**	**0.1538**	**2.2300e-003**	**0.1225**	**0.1247**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 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	0.0916	0.0542	0.7258	1.9900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		198.2870	198.2870	5.0800e-003		198.4141
Total	**0.0916**	**0.0542**	**0.7258**	**1.9900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**198.2870**	**198.2870**	**5.0800e-003**		**198.4141**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.5523**	**1.2734**	**7.8258**	**3.3675**	**1.1716**	**4.5390**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.3 Grading - 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	0.0763	0.0451	0.6048	1.6600e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		165.2392	165.2392	4.2400e-003		165.3451
Total	**0.0763**	**0.0451**	**0.6048**	**1.6600e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**165.2392**	**165.2392**	**4.2400e-003**		**165.3451**

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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**2.5554**	**1.2734**	**3.8288**	**1.3133**	**1.1716**	**2.4849**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.3 Grading - 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	0.0763	0.0451	0.6048	1.6600e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		165.2392	165.2392	4.2400e-003		165.3451
Total	**0.0763**	**0.0451**	**0.6048**	**1.6600e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**165.2392**	**165.2392**	**4.2400e-003**		**165.3451**

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	0.1199	4.4244	0.8094	0.0112	0.2754	0.0252	0.3005	0.0793	0.0241	0.1034		1,184.1810	1,184.1810	0.0888		1,186.4015
Worker	0.5496	0.3250	4.3547	0.0120	1.2072	7.3100e-003	1.2145	0.3202	6.7300e-003	0.3269		1,189.7221	1,189.7221	0.0305		1,190.4845
Total	**0.6694**	**4.7494**	**5.1641**	**0.0232**	**1.4826**	**0.0325**	**1.5150**	**0.3994**	**0.0308**	**0.4302**		**2,373.9031**	**2,373.9031**	**0.1193**		**2,376.8859**

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	0.1199	4.4244	0.8094	0.0112	0.2754	0.0252	0.3005	0.0793	0.0241	0.1034		1,184.1810	1,184.1810	0.0888		1,186.4015
Worker	0.5496	0.3250	4.3547	0.0120	1.2072	7.3100e-003	1.2145	0.3202	6.7300e-003	0.3269		1,189.7221	1,189.7221	0.0305		1,190.4845
Total	**0.6694**	**4.7494**	**5.1641**	**0.0232**	**1.4826**	**0.0325**	**1.5150**	**0.3994**	**0.0308**	**0.4302**		**2,373.9031**	**2,373.9031**	**0.1193**		**2,376.8859**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1004	3.9792	0.7100	0.0111	0.2753	7.5700e-003	0.2829	0.0793	7.2400e-003	0.0865		1,174.9794	1,174.9794	0.0841		1,177.0809
Worker	0.5120	0.2917	3.9929	0.0115	1.2072	7.1100e-003	1.2143	0.3202	6.5500e-003	0.3267		1,149.9310	1,149.9310	0.0274		1,150.6165
Total	**0.6124**	**4.2709**	**4.7028**	**0.0227**	**1.4825**	**0.0147**	**1.4972**	**0.3994**	**0.0138**	**0.4132**		**2,324.9104**	**2,324.9104**	**0.1115**		**2,327.6973**

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1004	3.9792	0.7100	0.0111	0.2753	7.5700e-003	0.2829	0.0793	7.2400e-003	0.0865		1,174.9794	1,174.9794	0.0841		1,177.0809
Worker	0.5120	0.2917	3.9929	0.0115	1.2072	7.1100e-003	1.2143	0.3202	6.5500e-003	0.3267		1,149.9310	1,149.9310	0.0274		1,150.6165
Total	**0.6124**	**4.2709**	**4.7028**	**0.0227**	**1.4825**	**0.0147**	**1.4972**	**0.3994**	**0.0138**	**0.4132**		**2,324.9104**	**2,324.9104**	**0.1115**		**2,327.6973**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.5371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7927**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0405	0.5546	1.6000e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		159.7126	159.7126	3.8100e-003		159.8078
Total	**0.0711**	**0.0405**	**0.5546**	**1.6000e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**159.7126**	**159.7126**	**3.8100e-003**		**159.8078**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.5371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7927**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0405	0.5546	1.6000e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		159.7126	159.7126	3.8100e-003		159.8078
Total	**0.0711**	**0.0405**	**0.5546**	**1.6000e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**159.7126**	**159.7126**	**3.8100e-003**		**159.8078**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.0547					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**20.2736**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1043	0.0594	0.8134	2.3500e-003	0.2459	1.4500e-003	0.2474	0.0652	1.3300e-003	0.0666		234.2452	234.2452	5.5900e-003		234.3848
Total	**0.1043**	**0.0594**	**0.8134**	**2.3500e-003**	**0.2459**	**1.4500e-003**	**0.2474**	**0.0652**	**1.3300e-003**	**0.0666**		**234.2452**	**234.2452**	**5.5900e-003**		**234.3848**

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	20.0547					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**20.2736**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1043	0.0594	0.8134	2.3500e-003	0.2459	1.4500e-003	0.2474	0.0652	1.3300e-003	0.0666		234.2452	234.2452	5.5900e-003		234.3848
Total	**0.1043**	**0.0594**	**0.8134**	**2.3500e-003**	**0.2459**	**1.4500e-003**	**0.2474**	**0.0652**	**1.3300e-003**	**0.0666**		**234.2452**	**234.2452**	**5.5900e-003**		**234.3848**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.7877	36.7369	33.9264	0.1274	6.8675	0.0846	6.9521	1.8375	0.0793	1.9168		13,072.0910	13,072.0910	1.1522		13,100.8953
Unmitigated	6.5447	44.0628	57.1028	0.2283	15.1342	0.1554	15.2896	4.0494	0.1458	4.1952		23,329.1733	23,329.1733	1.4356		23,365.0633

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	321.98	321.98	321.98	431,314	195,718
Fast Food Restaurant w/o Drive Thru	593.00	593.00	593.00	1,204,715	546,666
Fast Food Restaurant with Drive Thru	1,122.01	1,122.01	1122.01	2,219,100	1,006,966
Gasoline/Service Station	1,660.00	1,660.00	1660.00	2,863,933	1,299,574
General Office Building	117.04	117.04	117.04	377,050	171,095
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	3,814.03	3,814.03	3,814.03	7,096,112	3,220,020

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	57	43	0
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	54	46	0
Gasoline/Service Station	16.60	8.40	6.90	2.00	79.00	19.00	43	57	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant w/o Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Gasoline/Service Station	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Office Building	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

06411902 Corydon Gateway Development - Riverside-South Coast County, 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	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556
NaturalGas Unmitigated	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556

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					
Automobile Care Center	1025.44	0.0111	0.1005	0.0845	6.0000e-004		7.6400e-003	7.6400e-003		7.6400e-003	7.6400e-003		120.6397	120.6397	2.3100e-003	2.2100e-003	121.3566
Fast Food Restaurant w/o Drive Thru	3001.85	0.0324	0.2943	0.2472	1.7700e-003		0.0224	0.0224		0.0224	0.0224		353.1585	353.1585	6.7700e-003	6.4700e-003	355.2571
Fast Food Restaurant with Drive Thru	3969	0.0428	0.3891	0.3269	2.3300e-003		0.0296	0.0296		0.0296	0.0296		466.9412	466.9412	8.9500e-003	8.5600e-003	469.7160
Gasoline/Service Station	363.888	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8104	42.8104	8.2000e-004	7.8000e-004	43.0648
General Office Building	109.519	1.1800e-003	0.0107	9.0200e-003	6.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004		12.8846	12.8846	2.5000e-004	2.4000e-004	12.9611
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
Other Non-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
Total		**0.0913**	**0.8304**	**0.6975**	**4.9700e-003**		**0.0631**	**0.0631**		**0.0631**	**0.0631**		**996.4343**	**996.4343**	**0.0191**	**0.0183**	**1,002.3556**

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					
Automobile Care Center	1.02544	0.0111	0.1005	0.0845	6.0000e-004		7.6400e-003	7.6400e-003		7.6400e-003	7.6400e-003		120.6397	120.6397	2.3100e-003	2.2100e-003	121.3566
Fast Food Restaurant w/o Drive Thru	3.00185	0.0324	0.2943	0.2472	1.7700e-003		0.0224	0.0224		0.0224	0.0224		353.1585	353.1585	6.7700e-003	6.4700e-003	355.2571
Fast Food Restaurant with Drive Thru	3.969	0.0428	0.3891	0.3269	2.3300e-003		0.0296	0.0296		0.0296	0.0296		466.9412	466.9412	8.9500e-003	8.5600e-003	469.7160
Gasoline/Service Station	0.363888	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8104	42.8104	8.2000e-004	7.8000e-004	43.0648
General Office Building	0.109519	1.1800e-003	0.0107	9.0200e-003	6.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004		12.8846	12.8846	2.5000e-004	2.4000e-004	12.9611
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
Other Non-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
Total		**0.0913**	**0.8304**	**0.6975**	**4.9700e-003**		**0.0631**	**0.0631**		**0.0631**	**0.0631**		**996.4343**	**996.4343**	**0.0191**	**0.0183**	**1,002.3556**

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	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Unmitigated	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125

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	0.1099					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Total	**0.9125**	**5.0000e-005**	**5.4900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0117**	**0.0117**	**3.0000e-005**		**0.0125**

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	0.1099					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Total	**0.9125**	**5.0000e-005**	**5.4900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0117**	**0.0117**	**3.0000e-005**		**0.0125**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

06411902 Corydon Gateway Development

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	11.52	1000sqft	0.26	11,520.00	0
Other Asphalt Surfaces	4.10	Acre	4.10	178,596.00	0
Other Non-Asphalt Surfaces	1.13	Acre	1.13	49,222.80	0
Fast Food Restaurant w/o Drive Thru	4.01	1000sqft	0.09	4,007.00	0
Fast Food Restaurant with Drive Thru	5.30	1000sqft	0.12	5,298.00	0
Automobile Care Center	11.52	1000sqft	0.26	11,520.00	0
Gasoline/Service Station	16.00	Pump	0.09	4,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

06411902 Corydon Gateway Development - Riverside-South Coast County, Winter

Project Characteristics -

Land Use - 6.05 ac w/ 5.298 TSF fast-food w/ drive-thru, 16 pump gas station (4,088 sf mrkt), 11.52 TSF office, 11.52 TSF auto care, 4.007 TSF car wash, 1.13 ac landscape/basin, & rmndr ~4.01 ac paving(includes 121 space prkg lot).

Construction Phase - CalEEMod default construction timing utilized. Site is vacant, no demolition needed.

Off-road Equipment -

Off-road Equipment - Site Prep of only ~10% of site to remove existing vegetation etc.; therefore, only ~10% CalEEMod default equipment needed.

Grading - Site anticipated to balance. Site prep of ~0.5 acres (~10% site).

Vehicle Trips - TIA, 103.75trips/TSF gas (w/50%pass&10%int), 10.16trips/TSF office (w/10%int), 27.95trips/TSF auto (w/10%int), 211.78trips/TSF fast (w/50%pass&10%int), & 147.99trips/TSF wash (w/35%pass&10%int). Passby wash/gas/fast changed to 0 & split primary/diverted.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Mobile Land Use Mitigation - Sidewalks on/off site. Site is 0.06 miles NW RTA Mission Trail FS Corydon & 3.03 miles SE dwntwn Lake Elsinore. Comm retail =500sf/1emp=24,913sf/500=50emp & Comm office =300sf/1emp=11,520sf/300=38emp. 88emp/0.84ac(job ac-bldgs only)= ~104.8 emp/job acre

Water Mitigation - Per CalGreen Standards & City of Lak Elsinore CAP Measure E-4.2, 230% indoor water reduction.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	2,258.80	4,088.00
tblLandUse	LotAcreage	0.05	0.09
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblVehicleTrips	DV_TP	37.00	43.00
tblVehicleTrips	DV_TP	21.00	46.00
tblVehicleTrips	DV_TP	27.00	57.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00

tblVehicleTrips	PR_TP	51.00	57.00
tblVehicleTrips	PR_TP	29.00	54.00
tblVehicleTrips	PR_TP	14.00	43.00
tblVehicleTrips	ST_TR	23.72	27.95
tblVehicleTrips	ST_TR	696.00	147.99
tblVehicleTrips	ST_TR	722.03	211.78
tblVehicleTrips	ST_TR	168.56	103.75
tblVehicleTrips	ST_TR	2.46	10.16
tblVehicleTrips	SU_TR	11.88	27.95
tblVehicleTrips	SU_TR	500.00	147.99
tblVehicleTrips	SU_TR	542.72	211.78
tblVehicleTrips	SU_TR	168.56	103.75
tblVehicleTrips	SU_TR	1.05	10.16
tblVehicleTrips	WD_TR	23.72	27.95
tblVehicleTrips	WD_TR	716.00	147.99
tblVehicleTrips	WD_TR	496.12	211.78
tblVehicleTrips	WD_TR	168.56	103.75
tblVehicleTrips	WD_TR	11.03	10.16

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					
2020	2.7845	26.4326	21.3189	0.0484	6.7200	1.2744	7.9945	3.4120	1.1725	4.5844	0.0000	4,760.0416	4,760.0416	0.9327	0.0000	4,778.7467
2021	20.3760	21.6787	20.6381	0.0480	1.4825	0.9735	2.4561	0.3994	0.9153	1.3147	0.0000	4,715.7578	4,715.7578	0.7335	0.0000	4,734.0957
Maximum	**20.3760**	**26.4326**	**21.3189**	**0.0484**	**6.7200**	**1.2744**	**7.9945**	**3.4120**	**1.1725**	**4.5844**	**0.0000**	**4,760.0416**	**4,760.0416**	**0.9327**	**0.0000**	**4,778.7467**

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					
2020	2.7845	26.4326	21.3189	0.0484	2.7231	1.2744	3.9975	1.3578	1.1725	2.5303	0.0000	4,760.0416	4,760.0416	0.9327	0.0000	4,778.7466
2021	20.3760	21.6787	20.6381	0.0480	1.4825	0.9735	2.4561	0.3994	0.9153	1.3147	0.0000	4,715.7578	4,715.7578	0.7335	0.0000	4,734.0956
Maximum	**20.3760**	**26.4326**	**21.3189**	**0.0484**	**2.7231**	**1.2744**	**3.9975**	**1.3578**	**1.1725**	**2.5303**	**0.0000**	**4,760.0416**	**4,760.0416**	**0.9327**	**0.0000**	**4,778.7466**

	ROG	NOx	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**	**48.73**	**0.00**	**38.25**	**53.90**	**0.00**	**34.82**	**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	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Energy	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556
Mobile	5.4615	43.6046	51.6738	0.2098	15.1342	0.1581	15.2922	4.0494	0.1483	4.1977		21,462.0882	21,462.0882	1.5232		21,500.1680
Total	**6.4653**	**44.4351**	**52.3768**	**0.2148**	**15.1342**	**0.2212**	**15.3554**	**4.0494**	**0.2114**	**4.2608**		**22,458.5343**	**22,458.5343**	**1.5423**	**0.0183**	**22,502.5362**

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	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Energy	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556
Mobile	4.7551	35.9155	33.1536	0.1163	6.8675	0.0872	6.9547	1.8375	0.0818	1.9193		11,935.1376	11,935.1376	1.2606		11,966.6526
Total	**5.7590**	**36.7459**	**33.8566**	**0.1213**	**6.8675**	**0.1504**	**7.0178**	**1.8375**	**0.1449**	**1.9824**		**12,931.5837**	**12,931.5837**	**1.2797**	**0.0183**	**12,969.0208**

	ROG	NOx	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	**10.93**	**17.30**	**35.36**	**43.55**	**54.62**	**32.02**	**54.30**	**54.62**	**31.46**	**53.47**	**0.00**	**42.42**	**42.42**	**17.03**	**0.00**	**42.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2020	8/14/2020	5	10	
2	Grading	Grading	8/15/2020	9/11/2020	5	20	
3	Building Construction	Building Construction	9/12/2020	7/30/2021	5	230	
4	Paving	Paving	7/31/2021	8/27/2021	5	20	
5	Architectural Coating	Architectural Coating	8/28/2021	9/24/2021	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 10

Acres of Paving: 5.23

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,650; Non-Residential Outdoor: 18,217; Striped Parking Area: 13,669 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	43.00	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	22.00	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 - 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					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0530**	**0.1331**	**0.1862**	**5.7300e-003**	**0.1225**	**0.1282**		**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 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	0.0897	0.0560	0.5871	1.7900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		177.8824	177.8824	4.4200e-003		177.9929
Total	**0.0897**	**0.0560**	**0.5871**	**1.7900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**177.8824**	**177.8824**	**4.4200e-003**		**177.9929**

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					0.0207	0.0000	0.0207	2.2300e-003	0.0000	2.2300e-003			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	**0.2095**	**2.1052**	**2.2797**	**3.1100e-003**	**0.0207**	**0.1331**	**0.1538**	**2.2300e-003**	**0.1225**	**0.1247**	**0.0000**	**300.7685**	**300.7685**	**0.0973**		**303.2004**

3.2 Site Preparation - 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	0.0897	0.0560	0.5871	1.7900e-003	0.2012	1.2200e-003	0.2024	0.0534	1.1200e-003	0.0545		177.8824	177.8824	4.4200e-003		177.9929
Total	**0.0897**	**0.0560**	**0.5871**	**1.7900e-003**	**0.2012**	**1.2200e-003**	**0.2024**	**0.0534**	**1.1200e-003**	**0.0545**		**177.8824**	**177.8824**	**4.4200e-003**		**177.9929**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.5523**	**1.2734**	**7.8258**	**3.3675**	**1.1716**	**4.5390**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.3 Grading - 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	0.0748	0.0467	0.4893	1.4900e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		148.2354	148.2354	3.6800e-003		148.3274
Total	**0.0748**	**0.0467**	**0.4893**	**1.4900e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**148.2354**	**148.2354**	**3.6800e-003**		**148.3274**

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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**2.5554**	**1.2734**	**3.8288**	**1.3133**	**1.1716**	**2.4849**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.3 Grading - 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	0.0748	0.0467	0.4893	1.4900e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		148.2354	148.2354	3.6800e-003		148.3274
Total	**0.0748**	**0.0467**	**0.4893**	**1.4900e-003**	**0.1677**	**1.0200e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**148.2354**	**148.2354**	**3.6800e-003**		**148.3274**

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	0.1264	4.4012	0.9477	0.0108	0.2754	0.0255	0.3008	0.0793	0.0244	0.1036		1,139.6839	1,139.6839	0.0988		1,142.1548
Worker	0.5382	0.3362	3.5227	0.0107	1.2072	7.3100e-003	1.2145	0.3202	6.7300e-003	0.3269		1,067.2947	1,067.2947	0.0265		1,067.9574
Total	**0.6646**	**4.7374**	**4.4704**	**0.0215**	**1.4826**	**0.0328**	**1.5153**	**0.3994**	**0.0311**	**0.4305**		**2,206.9785**	**2,206.9785**	**0.1254**		**2,210.1122**

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	0.1264	4.4012	0.9477	0.0108	0.2754	0.0255	0.3008	0.0793	0.0244	0.1036		1,139.6839	1,139.6839	0.0988		1,142.1548
Worker	0.5382	0.3362	3.5227	0.0107	1.2072	7.3100e-003	1.2145	0.3202	6.7300e-003	0.3269		1,067.2947	1,067.2947	0.0265		1,067.9574
Total	**0.6646**	**4.7374**	**4.4704**	**0.0215**	**1.4826**	**0.0328**	**1.5153**	**0.3994**	**0.0311**	**0.4305**		**2,206.9785**	**2,206.9785**	**0.1254**		**2,210.1122**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

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

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1066	3.9449	0.8398	0.0107	0.2753	7.8000e-003	0.2831	0.0793	7.4600e-003	0.0867		1,130.7848	1,130.7848	0.0937		1,133.1264
Worker	0.5025	0.3017	3.2230	0.0104	1.2072	7.1100e-003	1.2143	0.3202	6.5500e-003	0.3267		1,031.6090	1,031.6090	0.0238		1,032.2050
Total	**0.6091**	**4.2466**	**4.0629**	**0.0211**	**1.4825**	**0.0149**	**1.4974**	**0.3994**	**0.0140**	**0.4134**		**2,162.3939**	**2,162.3939**	**0.1175**		**2,165.3314**

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1066	3.9449	0.8398	0.0107	0.2753	7.8000e-003	0.2831	0.0793	7.4600e-003	0.0867		1,130.7848	1,130.7848	0.0937		1,133.1264
Worker	0.5025	0.3017	3.2230	0.0104	1.2072	7.1100e-003	1.2143	0.3202	6.5500e-003	0.3267		1,031.6090	1,031.6090	0.0238		1,032.2050
Total	**0.6091**	**4.2466**	**4.0629**	**0.0211**	**1.4825**	**0.0149**	**1.4974**	**0.3994**	**0.0140**	**0.4134**		**2,162.3939**	**2,162.3939**	**0.1175**		**2,165.3314**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.5371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7927**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0698	0.0419	0.4476	1.4400e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		143.2790	143.2790	3.3100e-003		143.3618
Total	**0.0698**	**0.0419**	**0.4476**	**1.4400e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**143.2790**	**143.2790**	**3.3100e-003**		**143.3618**

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.5371					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7927**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0698	0.0419	0.4476	1.4400e-003	0.1677	9.9000e-004	0.1687	0.0445	9.1000e-004	0.0454		143.2790	143.2790	3.3100e-003		143.3618
Total	**0.0698**	**0.0419**	**0.4476**	**1.4400e-003**	**0.1677**	**9.9000e-004**	**0.1687**	**0.0445**	**9.1000e-004**	**0.0454**		**143.2790**	**143.2790**	**3.3100e-003**		**143.3618**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.0547					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**20.2736**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1024	0.0615	0.6566	2.1100e-003	0.2459	1.4500e-003	0.2474	0.0652	1.3300e-003	0.0666		210.1426	210.1426	4.8600e-003		210.2640
Total	**0.1024**	**0.0615**	**0.6566**	**2.1100e-003**	**0.2459**	**1.4500e-003**	**0.2474**	**0.0652**	**1.3300e-003**	**0.0666**		**210.1426**	**210.1426**	**4.8600e-003**		**210.2640**

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	20.0547					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**20.2736**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1024	0.0615	0.6566	2.1100e-003	0.2459	1.4500e-003	0.2474	0.0652	1.3300e-003	0.0666		210.1426	210.1426	4.8600e-003		210.2640
Total	**0.1024**	**0.0615**	**0.6566**	**2.1100e-003**	**0.2459**	**1.4500e-003**	**0.2474**	**0.0652**	**1.3300e-003**	**0.0666**		**210.1426**	**210.1426**	**4.8600e-003**		**210.2640**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	4.7551	35.9155	33.1536	0.1163	6.8675	0.0872	6.9547	1.8375	0.0818	1.9193		11,935.1376	11,935.1376	1.2606		11,966.6526
Unmitigated	5.4615	43.6046	51.6738	0.2098	15.1342	0.1581	15.2922	4.0494	0.1483	4.1977		21,462.0882	21,462.0882	1.5232		21,500.1680

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	321.98	321.98	321.98	431,314	195,718
Fast Food Restaurant w/o Drive Thru	593.00	593.00	593.00	1,204,715	546,666
Fast Food Restaurant with Drive Thru	1,122.01	1,122.01	1122.01	2,219,100	1,006,966
Gasoline/Service Station	1,660.00	1,660.00	1660.00	2,863,933	1,299,574
General Office Building	117.04	117.04	117.04	377,050	171,095
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	3,814.03	3,814.03	3,814.03	7,096,112	3,220,020

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	57	43	0
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	54	46	0
Gasoline/Service Station	16.60	8.40	6.90	2.00	79.00	19.00	43	57	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant w/o Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Gasoline/Service Station	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Office Building	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

06411902 Corydon Gateway Development - Riverside-South Coast County, 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	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556
NaturalGas Unmitigated	0.0913	0.8304	0.6975	4.9800e-003		0.0631	0.0631		0.0631	0.0631		996.4343	996.4343	0.0191	0.0183	1,002.3556

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					
Automobile Care Center	1025.44	0.0111	0.1005	0.0845	6.0000e-004		7.6400e-003	7.6400e-003		7.6400e-003	7.6400e-003		120.6397	120.6397	2.3100e-003	2.2100e-003	121.3566
Fast Food Restaurant w/o Drive Thru	3001.85	0.0324	0.2943	0.2472	1.7700e-003		0.0224	0.0224		0.0224	0.0224		353.1585	353.1585	6.7700e-003	6.4700e-003	355.2571
Fast Food Restaurant with Drive Thru	3969	0.0428	0.3891	0.3269	2.3300e-003		0.0296	0.0296		0.0296	0.0296		466.9412	466.9412	8.9500e-003	8.5600e-003	469.7160
Gasoline/Service Station	363.888	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8104	42.8104	8.2000e-004	7.8000e-004	43.0648
General Office Building	109.519	1.1800e-003	0.0107	9.0200e-003	6.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004		12.8846	12.8846	2.5000e-004	2.4000e-004	12.9611
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
Other Non-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
Total		**0.0913**	**0.8304**	**0.6975**	**4.9700e-003**		**0.0631**	**0.0631**		**0.0631**	**0.0631**		**996.4343**	**996.4343**	**0.0191**	**0.0183**	**1,002.3556**

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					
Automobile Care Center	1.02544	0.0111	0.1005	0.0845	6.0000e-004		7.6400e-003	7.6400e-003		7.6400e-003	7.6400e-003		120.6397	120.6397	2.3100e-003	2.2100e-003	121.3566
Fast Food Restaurant w/o Drive Thru	3.00185	0.0324	0.2943	0.2472	1.7700e-003		0.0224	0.0224		0.0224	0.0224		353.1585	353.1585	6.7700e-003	6.4700e-003	355.2571
Fast Food Restaurant with Drive Thru	3.969	0.0428	0.3891	0.3269	2.3300e-003		0.0296	0.0296		0.0296	0.0296		466.9412	466.9412	8.9500e-003	8.5600e-003	469.7160
Gasoline/Service Station	0.363888	3.9200e-003	0.0357	0.0300	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.8104	42.8104	8.2000e-004	7.8000e-004	43.0648
General Office Building	0.109519	1.1800e-003	0.0107	9.0200e-003	6.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004		12.8846	12.8846	2.5000e-004	2.4000e-004	12.9611
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
Other Non-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
Total		**0.0913**	**0.8304**	**0.6975**	**4.9700e-003**		**0.0631**	**0.0631**		**0.0631**	**0.0631**		**996.4343**	**996.4343**	**0.0191**	**0.0183**	**1,002.3556**

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	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Unmitigated	0.9125	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125

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	0.1099					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Total	**0.9125**	**5.0000e-005**	**5.4900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0117**	**0.0117**	**3.0000e-005**		**0.0125**

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	0.1099					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8021					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0117	0.0117	3.0000e-005		0.0125
Total	**0.9125**	**5.0000e-005**	**5.4900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0117**	**0.0117**	**3.0000e-005**		**0.0125**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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:

CalEEMod Annual Emission Output

06411902 Corydon Gateway Development

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	11.52	1000sqft	0.26	11,520.00	0
Other Asphalt Surfaces	4.10	Acre	4.10	178,596.00	0
Other Non-Asphalt Surfaces	1.13	Acre	1.13	49,222.80	0
Fast Food Restaurant w/o Drive Thru	4.01	1000sqft	0.09	4,007.00	0
Fast Food Restaurant with Drive Thru	5.30	1000sqft	0.12	5,298.00	0
Automobile Care Center	11.52	1000sqft	0.26	11,520.00	0
Gasoline/Service Station	16.00	Pump	0.09	4,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

06411902 Corydon Gateway Development - Riverside-South Coast County, Annual

Project Characteristics -

Land Use - 6.05 ac w/ 5.298 TSF fast-food w/ drive-thru, 16 pump gas station (4,088 sf mrkt), 11.52 TSF office, 11.52 TSF auto care, 4.007 TSF car wash, 1.13 ac landscape/basin, & rmndr ~4.01 ac paving(includes 121 space prkg lot).

Construction Phase - CalEEMod default construction timing utilized. Site is vacant, no demolition needed.

Off-road Equipment -

Off-road Equipment - Site Prep of only ~10% of site to remove existing vegetation etc.; therefore, only ~10% CalEEMod default equipment needed.

Grading - Site anticipated to balance. Site prep of ~0.5 acres (~10% site).

Vehicle Trips - TIA, 103.75trips/TSF gas (w/50%pass&10%int), 10.16trips/TSF office (w/10%int), 27.95trips/TSF auto (w/10%int), 211.78trips/TSF fast (w/50%pass&10%int), & 147.99trips/TSF wash (w/35%pass&10%int). Passby wash/gas/fast changed to 0 & split primary/diverted.

Construction Off-road Equipment Mitigation - SCAQMD Rule 403 - Fugitive Dust

Mobile Land Use Mitigation - Sidewalks on/off site. Site is 0.06 miles NW RTA Mission Trail FS Corydon & 3.03 miles SE dwntwn Lake Elsinore. Comm retail =500sf/1emp=24,913sf/500=50emp & Comm office =300sf/1emp=11,520sf/300=38emp. 88emp/0.84ac(job ac-bldgs only)= ~104.8 emp/job acre

Water Mitigation - Per CalGreen Standards & City of Lak Elsinore CAP Measure E-4.2, 230% indoor water reduction.

Waste Mitigation - AB 341 requires each jurisdiction in CA to divert at least 75% of their waste away from landfills by 2020.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	2,258.80	4,088.00
tblLandUse	LotAcreage	0.05	0.09
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblTripsAndVMT	WorkerTripNumber	3.00	18.00
tblVehicleTrips	DV_TP	37.00	43.00
tblVehicleTrips	DV_TP	21.00	46.00
tblVehicleTrips	DV_TP	27.00	57.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	50.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00

tblVehicleTrips	PR_TP	51.00	57.00
tblVehicleTrips	PR_TP	29.00	54.00
tblVehicleTrips	PR_TP	14.00	43.00
tblVehicleTrips	ST_TR	23.72	27.95
tblVehicleTrips	ST_TR	696.00	147.99
tblVehicleTrips	ST_TR	722.03	211.78
tblVehicleTrips	ST_TR	168.56	103.75
tblVehicleTrips	ST_TR	2.46	10.16
tblVehicleTrips	SU_TR	11.88	27.95
tblVehicleTrips	SU_TR	500.00	147.99
tblVehicleTrips	SU_TR	542.72	211.78
tblVehicleTrips	SU_TR	168.56	103.75
tblVehicleTrips	SU_TR	1.05	10.16
tblVehicleTrips	WD_TR	23.72	27.95
tblVehicleTrips	WD_TR	716.00	147.99
tblVehicleTrips	WD_TR	496.12	211.78
tblVehicleTrips	WD_TR	168.56	103.75
tblVehicleTrips	WD_TR	11.03	10.16

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1346	1.2234	1.0269	2.2700e-003	0.1260	0.0588	0.1849	0.0500	0.0551	0.1050	0.0000	202.1098	202.1098	0.0356	0.0000	202.9989
2021	0.4085	1.7879	1.7427	3.9600e-003	0.1142	0.0812	0.1954	0.0308	0.0763	0.1071	0.0000	352.4340	352.4340	0.0567	0.0000	353.8503
Maximum	**0.4085**	**1.7879**	**1.7427**	**3.9600e-003**	**0.1260**	**0.0812**	**0.1954**	**0.0500**	**0.0763**	**0.1071**	**0.0000**	**352.4340**	**352.4340**	**0.0567**	**0.0000**	**353.8503**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1346	1.2234	1.0269	2.2700e-003	0.0859	0.0588	0.1447	0.0294	0.0551	0.0844	0.0000	202.1097	202.1097	0.0356	0.0000	202.9988
2021	0.4085	1.7879	1.7427	3.9600e-003	0.1142	0.0812	0.1954	0.0308	0.0763	0.1071	0.0000	352.4338	352.4338	0.0567	0.0000	353.8501
Maximum	**0.4085**	**1.7879**	**1.7427**	**3.9600e-003**	**0.1142**	**0.0812**	**0.1954**	**0.0308**	**0.0763**	**0.1071**	**0.0000**	**352.4338**	**352.4338**	**0.0567**	**0.0000**	**353.8501**

	ROG	NOx	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**	**16.70**	**0.00**	**10.55**	**25.46**	**0.00**	**9.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2020	10-31-2020	0.7787	0.7787
2	11-1-2020	1-31-2021	0.8497	0.8497
3	2-1-2021	4-30-2021	0.7692	0.7692
4	5-1-2021	7-31-2021	0.7923	0.7923
5	8-1-2021	9-30-2021	0.3626	0.3626
		Highest	0.8497	0.8497

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	0.1665	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Energy	0.0167	0.1515	0.1273	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	391.1580	391.1580	0.0125	4.9600e-003	392.9475
Mobile	0.9925	8.0850	9.5645	0.0392	2.7094	0.0285	2.7379	0.7260	0.0267	0.7526	0.0000	3,639.3601	3,639.3601	0.2415	0.0000	3,645.3977
Waste						0.0000	0.0000		0.0000	0.0000	34.6262	0.0000	34.6262	2.0464	0.0000	85.7849
Water						0.0000	0.0000		0.0000	0.0000	1.9574	33.4900	35.4474	0.2024	5.0300e-003	42.0078
Total	**1.1757**	**8.2365**	**9.6925**	**0.0401**	**2.7094**	**0.0400**	**2.7494**	**0.7260**	**0.0382**	**0.7642**	**36.5836**	**4,064.0095**	**4,100.5930**	**2.5028**	**9.9900e-003**	**4,166.1394**

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	0.1665	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Energy	0.0167	0.1515	0.1273	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	391.1580	391.1580	0.0125	4.9600e-003	392.9475
Mobile	0.8616	6.6681	6.0051	0.0219	1.2295	0.0156	1.2451	0.3294	0.0146	0.3440	0.0000	2,041.3364	2,041.3364	0.1974	0.0000	2,046.2721
Waste						0.0000	0.0000		0.0000	0.0000	8.6566	0.0000	8.6566	0.5116	0.0000	21.4462
Water						0.0000	0.0000		0.0000	0.0000	1.3702	25.8110	27.1812	0.1418	3.5400e-003	31.7819
Total	**1.0448**	**6.8196**	**6.1331**	**0.0228**	**1.2295**	**0.0271**	**1.2566**	**0.3294**	**0.0261**	**0.3555**	**10.0267**	**2,458.3067**	**2,468.3334**	**0.8633**	**8.5000e-003**	**2,492.4492**

	ROG	NOx	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	**11.13**	**17.20**	**36.72**	**43.13**	**54.62**	**32.20**	**54.30**	**54.62**	**31.64**	**53.47**	**72.59**	**39.51**	**39.81**	**65.51**	**14.91**	**40.17**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2020	8/14/2020	5	10	
2	Grading	Grading	8/15/2020	9/11/2020	5	20	
3	Building Construction	Building Construction	9/12/2020	7/30/2021	5	230	
4	Paving	Paving	7/31/2021	8/27/2021	5	20	
5	Architectural Coating	Architectural Coating	8/28/2021	9/24/2021	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 10

Acres of Paving: 5.23

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,650; Non-Residential Outdoor: 18,217; Striped Parking Area: 13,669 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	43.00	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	22.00	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 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0500e-003	0.0105	0.0114	2.0000e-005		6.7000e-004	6.7000e-004		6.1000e-004	6.1000e-004	0.0000	1.3643	1.3643	4.4000e-004	0.0000	1.3753
Total	**1.0500e-003**	**0.0105**	**0.0114**	**2.0000e-005**	**2.7000e-004**	**6.7000e-004**	**9.4000e-004**	**3.0000e-005**	**6.1000e-004**	**6.4000e-004**	**0.0000**	**1.3643**	**1.3643**	**4.4000e-004**	**0.0000**	**1.3753**

3.2 Site Preparation - 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	4.1000e-004	2.9000e-004	3.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8276	0.8276	2.0000e-005	0.0000	0.8282
Total	**4.1000e-004**	**2.9000e-004**	**3.0900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8276**	**0.8276**	**2.0000e-005**	**0.0000**	**0.8282**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0500e-003	0.0105	0.0114	2.0000e-005		6.7000e-004	6.7000e-004		6.1000e-004	6.1000e-004	0.0000	1.3643	1.3643	4.4000e-004	0.0000	1.3753
Total	**1.0500e-003**	**0.0105**	**0.0114**	**2.0000e-005**	**1.0000e-004**	**6.7000e-004**	**7.7000e-004**	**1.0000e-005**	**6.1000e-004**	**6.2000e-004**	**0.0000**	**1.3643**	**1.3643**	**4.4000e-004**	**0.0000**	**1.3753**

3.2 Site Preparation - 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	4.1000e-004	2.9000e-004	3.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8276	0.8276	2.0000e-005	0.0000	0.8282
Total	**4.1000e-004**	**2.9000e-004**	**3.0900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8276**	**0.8276**	**2.0000e-005**	**0.0000**	**0.8282**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2639	0.1605	3.0000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	26.0588	26.0588	8.4300e-003	0.0000	26.2694
Total	**0.0243**	**0.2639**	**0.1605**	**3.0000e-004**	**0.0655**	**0.0127**	**0.0783**	**0.0337**	**0.0117**	**0.0454**	**0.0000**	**26.0588**	**26.0588**	**8.4300e-003**	**0.0000**	**26.2694**

3.3 Grading - 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	6.9000e-004	4.8000e-004	5.1600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3794	1.3794	3.0000e-005	0.0000	1.3803
Total	**6.9000e-004**	**4.8000e-004**	**5.1600e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3794**	**1.3794**	**3.0000e-005**	**0.0000**	**1.3803**

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					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0243	0.2639	0.1605	3.0000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	26.0587	26.0587	8.4300e-003	0.0000	26.2694
Total	**0.0243**	**0.2639**	**0.1605**	**3.0000e-004**	**0.0256**	**0.0127**	**0.0383**	**0.0131**	**0.0117**	**0.0249**	**0.0000**	**26.0587**	**26.0587**	**8.4300e-003**	**0.0000**	**26.2694**

3.3 Grading - 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	6.9000e-004	4.8000e-004	5.1600e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3794	1.3794	3.0000e-005	0.0000	1.3803
Total	**6.9000e-004**	**4.8000e-004**	**5.1600e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3794**	**1.3794**	**3.0000e-005**	**0.0000**	**1.3803**

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	0.0837	0.7579	0.6655	1.0600e-003		0.0441	0.0441		0.0415	0.0415	0.0000	91.4859	91.4859	0.0223	0.0000	92.0439
Total	**0.0837**	**0.7579**	**0.6655**	**1.0600e-003**		**0.0441**	**0.0441**		**0.0415**	**0.0415**	**0.0000**	**91.4859**	**91.4859**	**0.0223**	**0.0000**	**92.0439**

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	4.8300e-003	0.1767	0.0346	4.4000e-004	0.0107	1.0000e-003	0.0117	3.1000e-003	9.6000e-004	4.0500e-003	0.0000	41.7640	41.7640	3.3400e-003	0.0000	41.8475
Worker	0.0196	0.0137	0.1467	4.3000e-004	0.0469	2.9000e-004	0.0472	0.0125	2.7000e-004	0.0127	0.0000	39.2298	39.2298	9.8000e-004	0.0000	39.2544
Total	**0.0244**	**0.1904**	**0.1813**	**8.7000e-004**	**0.0576**	**1.2900e-003**	**0.0589**	**0.0156**	**1.2300e-003**	**0.0168**	**0.0000**	**80.9938**	**80.9938**	**4.3200e-003**	**0.0000**	**81.1019**

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	0.0837	0.7579	0.6655	1.0600e-003		0.0441	0.0441		0.0415	0.0415	0.0000	91.4858	91.4858	0.0223	0.0000	92.0438
Total	**0.0837**	**0.7579**	**0.6655**	**1.0600e-003**		**0.0441**	**0.0441**		**0.0415**	**0.0415**	**0.0000**	**91.4858**	**91.4858**	**0.0223**	**0.0000**	**92.0438**

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	4.8300e-003	0.1767	0.0346	4.4000e-004	0.0107	1.0000e-003	0.0117	3.1000e-003	9.6000e-004	4.0500e-003	0.0000	41.7640	41.7640	3.3400e-003	0.0000	41.8475
Worker	0.0196	0.0137	0.1467	4.3000e-004	0.0469	2.9000e-004	0.0472	0.0125	2.7000e-004	0.0127	0.0000	39.2298	39.2298	9.8000e-004	0.0000	39.2544
Total	**0.0244**	**0.1904**	**0.1813**	**8.7000e-004**	**0.0576**	**1.2900e-003**	**0.0589**	**0.0156**	**1.2300e-003**	**0.0168**	**0.0000**	**80.9938**	**80.9938**	**4.3200e-003**	**0.0000**	**81.1019**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1435	1.3161	1.2514	2.0300e-003		0.0724	0.0724		0.0681	0.0681	0.0000	174.8861	174.8861	0.0422	0.0000	175.9410
Total	**0.1435**	**1.3161**	**1.2514**	**2.0300e-003**		**0.0724**	**0.0724**		**0.0681**	**0.0681**	**0.0000**	**174.8861**	**174.8861**	**0.0422**	**0.0000**	**175.9410**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7500e-003	0.3027	0.0582	8.3000e-004	0.0205	5.8000e-004	0.0211	5.9200e-003	5.5000e-004	6.4700e-003	0.0000	79.2059	79.2059	6.0400e-003	0.0000	79.3570
Worker	0.0350	0.0236	0.2567	8.0000e-004	0.0896	5.4000e-004	0.0902	0.0238	4.9000e-004	0.0243	0.0000	72.4765	72.4765	1.6900e-003	0.0000	72.5187
Total	**0.0427**	**0.3263**	**0.3149**	**1.6300e-003**	**0.1101**	**1.1200e-003**	**0.1112**	**0.0297**	**1.0400e-003**	**0.0308**	**0.0000**	**151.6824**	**151.6824**	**7.7300e-003**	**0.0000**	**151.8757**

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	0.1435	1.3161	1.2514	2.0300e-003		0.0724	0.0724		0.0681	0.0681	0.0000	174.8859	174.8859	0.0422	0.0000	175.9407
Total	**0.1435**	**1.3161**	**1.2514**	**2.0300e-003**		**0.0724**	**0.0724**		**0.0681**	**0.0681**	**0.0000**	**174.8859**	**174.8859**	**0.0422**	**0.0000**	**175.9407**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.7500e-003	0.3027	0.0582	8.3000e-004	0.0205	5.8000e-004	0.0211	5.9200e-003	5.5000e-004	6.4700e-003	0.0000	79.2059	79.2059	6.0400e-003	0.0000	79.3570
Worker	0.0350	0.0236	0.2567	8.0000e-004	0.0896	5.4000e-004	0.0902	0.0238	4.9000e-004	0.0243	0.0000	72.4765	72.4765	1.6900e-003	0.0000	72.5187
Total	**0.0427**	**0.3263**	**0.3149**	**1.6300e-003**	**0.1101**	**1.1200e-003**	**0.1112**	**0.0297**	**1.0400e-003**	**0.0308**	**0.0000**	**151.6824**	**151.6824**	**7.7300e-003**	**0.0000**	**151.8757**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	5.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0179**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.3000e-004	4.7200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3333	1.3333	3.0000e-005	0.0000	1.3341
Total	**6.4000e-004**	**4.3000e-004**	**4.7200e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3333**	**1.3333**	**3.0000e-005**	**0.0000**	**1.3341**

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	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	5.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0179**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.3000e-004	4.7200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3333	1.3333	3.0000e-005	0.0000	1.3341
Total	**6.4000e-004**	**4.3000e-004**	**4.7200e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3333**	**1.3333**	**3.0000e-005**	**0.0000**	**1.3341**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.2027**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.4000e-004	6.9300e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9555	1.9555	5.0000e-005	0.0000	1.9566
Total	**9.4000e-004**	**6.4000e-004**	**6.9300e-003**	**2.0000e-005**	**2.4200e-003**	**1.0000e-005**	**2.4300e-003**	**6.4000e-004**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**1.9555**	**1.9555**	**5.0000e-005**	**0.0000**	**1.9566**

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	0.2006					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.2027**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	6.4000e-004	6.9300e-003	2.0000e-005	2.4200e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.6000e-004	0.0000	1.9555	1.9555	5.0000e-005	0.0000	1.9566
Total	**9.4000e-004**	**6.4000e-004**	**6.9300e-003**	**2.0000e-005**	**2.4200e-003**	**1.0000e-005**	**2.4300e-003**	**6.4000e-004**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**1.9555**	**1.9555**	**5.0000e-005**	**0.0000**	**1.9566**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.8616	6.6681	6.0051	0.0219	1.2295	0.0156	1.2451	0.3294	0.0146	0.3440	0.0000	2,041.3364	2,041.3364	0.1974	0.0000	2,046.2721
Unmitigated	0.9925	8.0850	9.5645	0.0392	2.7094	0.0285	2.7379	0.7260	0.0267	0.7526	0.0000	3,639.3601	3,639.3601	0.2415	0.0000	3,645.3977

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	321.98	321.98	321.98	431,314	195,718
Fast Food Restaurant w/o Drive Thru	593.00	593.00	593.00	1,204,715	546,666
Fast Food Restaurant with Drive Thru	1,122.01	1,122.01	1122.01	2,219,100	1,006,966
Gasoline/Service Station	1,660.00	1,660.00	1660.00	2,863,933	1,299,574
General Office Building	117.04	117.04	117.04	377,050	171,095
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	3,814.03	3,814.03	3,814.03	7,096,112	3,220,020

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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	57	43	0
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	54	46	0
Gasoline/Service Station	16.60	8.40	6.90	2.00	79.00	19.00	43	57	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant w/o Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Fast Food Restaurant with Drive Thru	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Gasoline/Service Station	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
General Office Building	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

06411902 Corydon Gateway Development - Riverside-South Coast County, 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	226.1871	226.1871	9.3400e-003	1.9300e-003	226.9963
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	226.1871	226.1871	9.3400e-003	1.9300e-003	226.9963
NaturalGas Mitigated	0.0167	0.1515	0.1273	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.9709	164.9709	3.1600e-003	3.0200e-003	165.9512
NaturalGas Unmitigated	0.0167	0.1515	0.1273	9.1000e-004		0.0115	0.0115		0.0115	0.0115	0.0000	164.9709	164.9709	3.1600e-003	3.0200e-003	165.9512

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					
Automobile Care Center	374285	2.0200e-003	0.0184	0.0154	1.1000e-004		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	19.9733	19.9733	3.8000e-004	3.7000e-004	20.0920
Fast Food Restaurant w/o Drive Thru	1.09567e+006	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003	0.0000	58.4693	58.4693	1.1200e-003	1.0700e-003	58.8168
Fast Food Restaurant with Drive Thru	1.44869e+006	7.8100e-003	0.0710	0.0597	4.3000e-004		5.4000e-003	5.4000e-003		5.4000e-003	5.4000e-003	0.0000	77.3074	77.3074	1.4800e-003	1.4200e-003	77.7668
Gasoline/Service Station	132819	7.2000e-004	6.5100e-003	5.4700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	7.0877	7.0877	1.4000e-004	1.3000e-004	7.1299
General Office Building	39974.4	2.2000e-004	1.9600e-003	1.6500e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1332	2.1332	4.0000e-005	4.0000e-005	2.1459
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
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0167**	**0.1515**	**0.1273**	**9.1000e-004**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**164.9709**	**164.9709**	**3.1600e-003**	**3.0300e-003**	**165.9512**

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					
Automobile Care Center	374285	2.0200e-003	0.0184	0.0154	1.1000e-004		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	19.9733	19.9733	3.8000e-004	3.7000e-004	20.0920
Fast Food Restaurant w/o Drive Thru	1.09567e+006	5.9100e-003	0.0537	0.0451	3.2000e-004		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003	0.0000	58.4693	58.4693	1.1200e-003	1.0700e-003	58.8168
Fast Food Restaurant with Drive Thru	1.44869e+006	7.8100e-003	0.0710	0.0597	4.3000e-004		5.4000e-003	5.4000e-003		5.4000e-003	5.4000e-003	0.0000	77.3074	77.3074	1.4800e-003	1.4200e-003	77.7668
Gasoline/Service Station	132819	7.2000e-004	6.5100e-003	5.4700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	7.0877	7.0877	1.4000e-004	1.3000e-004	7.1299
General Office Building	39974.4	2.2000e-004	1.9600e-003	1.6500e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1332	2.1332	4.0000e-005	4.0000e-005	2.1459
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
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0167**	**0.1515**	**0.1273**	**9.1000e-004**		**0.0115**	**0.0115**		**0.0115**	**0.0115**	**0.0000**	**164.9709**	**164.9709**	**3.1600e-003**	**3.0300e-003**	**165.9512**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	116928	37.2558	1.5400e-003	3.2000e-004	37.3891
Fast Food Restaurant w/o Drive Thru	190252	60.6185	2.5000e-003	5.2000e-004	60.8353
Fast Food Restaurant with Drive Thru	251549	80.1489	3.3100e-003	6.8000e-004	80.4357
Gasoline/Service Station	41493.2	13.2206	5.5000e-004	1.1000e-004	13.2679
General Office Building	109670	34.9433	1.4400e-003	3.0000e-004	35.0684
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**226.1871**	**9.3400e-003**	**1.9300e-003**	**226.9963**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	116928	37.2558	1.5400e-003	3.2000e-004	37.3891
Fast Food Restaurant w/o Drive Thru	190252	60.6185	2.5000e-003	5.2000e-004	60.8353
Fast Food Restaurant with Drive Thru	251549	80.1489	3.3100e-003	6.8000e-004	80.4357
Gasoline/Service Station	41493.2	13.2206	5.5000e-004	1.1000e-004	13.2679
General Office Building	109670	34.9433	1.4400e-003	3.0000e-004	35.0684
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**226.1871**	**9.3400e-003**	**1.9300e-003**	**226.9963**

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	0.1665	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Unmitigated	0.1665	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Total	**0.1665**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.0000**	**1.4200e-003**

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	0.0201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3300e-003	1.3300e-003	0.0000	0.0000	1.4200e-003
Total	**0.1665**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3300e-003**	**1.3300e-003**	**0.0000**	**0.0000**	**1.4200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	27.1812	0.1418	3.5400e-003	31.7819
Unmitigated	35.4474	0.2024	5.0300e-003	42.0078

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	1.08381 / 0.664273	7.1918	0.0356	8.9000e-004	8.3477
Fast Food Restaurant w/o Drive Thru	1.21717 / 0.0776917	5.7109	0.0399	9.8000e-004	7.0006
Fast Food Restaurant with Drive Thru	1.60873 / 0.102685	7.5481	0.0527	1.3000e-003	9.2527
Gasoline/Service Station	0.21251 / 0.130248	1.4101	6.9800e-003	1.7000e-004	1.6368
General Office Building	2.04749 / 1.25491	13.5864	0.0673	1.6900e-003	15.7701
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**35.4474**	**0.2024**	**5.0300e-003**	**42.0078**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.75867 / 0.664273	5.7397	0.0250	6.3000e-004	6.5513
Fast Food Restaurant w/o Drive Thru	0.852019 / 0.0776917	4.0802	0.0279	6.9000e-004	4.9832
Fast Food Restaurant with Drive Thru	1.12611 / 0.102685	5.3927	0.0369	9.1000e-004	6.5863
Gasoline/Service Station	0.148757 / 0.130248	1.1254	4.8900e-003	1.2000e-004	1.2846
General Office Building	1.43324 / 1.25491	10.8432	0.0471	1.1900e-003	12.3765
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**27.1812**	**0.1418**	**3.5400e-003**	**31.7819**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.6566	0.5116	0.0000	21.4462
Unmitigated	34.6262	2.0464	0.0000	85.7849

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	44.01	8.9336	0.5280	0.0000	22.1327
Fast Food Restaurant w/o Drive Thru	46.19	9.3762	0.5541	0.0000	23.2290
Fast Food Restaurant with Drive Thru	61.05	12.3926	0.7324	0.0000	30.7021
Gasoline/Service Station	8.62	1.7498	0.1034	0.0000	4.3350
General Office Building	10.71	2.1740	0.1285	0.0000	5.3861
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**34.6262**	**2.0463**	**0.0000**	**85.7850**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	11.0025	2.2334	0.1320	0.0000	5.5332
Fast Food Restaurant w/o Drive Thru	11.5475	2.3440	0.1385	0.0000	5.8073
Fast Food Restaurant with Drive Thru	15.2625	3.0982	0.1831	0.0000	7.6755
Gasoline/Service Station	2.155	0.4375	0.0259	0.0000	1.0838
General Office Building	2.6775	0.5435	0.0321	0.0000	1.3465
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**8.6566**	**0.5116**	**0.0000**	**21.4462**

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 C:

Screening Tables for Gasoline Dispensing Facilities & CARB 2005 Air Quality and Land Use Handbook Table 1-1

Table 12.1A – Screening Tables for Gasoline Dispensing Facilities

Underground Storage Tank (UST) **Residential**

MICR per One Million Gallons of Gasoline

		Downwind Distance (meters)							
Station Abbr.	Location	25	50	75	100	200	300	500	1000
AZUS	Azusa	2.884	1.040	0.550	0.340	0.093	0.045	0.018	0.006
BNAP	Banning	4.208	1.703	0.940	0.603	0.186	0.093	0.039	0.013
CELA	Central L.A.	2.484	0.876	0.455	0.287	0.085	0.041	0.017	0.005
ELSI	Lake Elsinore	2.978	1.075	0.558	0.347	0.103	0.051	0.021	0.007
FONT	Fontana	3.306	1.254	0.677	0.423	0.124	0.060	0.025	0.007
MSVJ	Mission Viejo	2.721	0.981	0.515	0.319	0.094	0.047	0.018	0.006
PERI	Perris	3.494	1.310	0.695	0.436	0.127	0.063	0.026	0.008
PICO	Pico Rivera	2.629	0.956	0.509	0.316	0.091	0.044	0.018	0.005
RDLD	Redlands	3.562	1.325	0.691	0.418	0.113	0.055	0.024	0.007
UPLA	Upland	3.108	1.133	0.609	0.384	0.111	0.054	0.022	0.007
KBUR	Burbank Airport	3.097	1.198	0.655	0.410	0.125	0.062	0.026	0.008
KCNO	Chino Airport.	4.084	1.609	0.870	0.549	0.166	0.082	0.033	0.010
KCQT	USC/Downtown L.A.	3.382	1.244	0.656	0.407	0.110	0.052	0.021	0.007
KFUL	Fullerton Airport	2.726	1.027	0.553	0.348	0.104	0.052	0.021	0.007
KHHR	Hawthorne Airport	3.225	1.197	0.640	0.405	0.123	0.061	0.025	0.007
KLAX	Los Angeles Int'l Airport	4.456	1.830	1.010	0.648	0.204	0.102	0.044	0.013
KLGB	Long Beach Airport	3.417	1.394	0.764	0.488	0.151	0.076	0.033	0.010
KONT	Ontario Airport	4.834	2.006	1.111	0.710	0.222	0.112	0.047	0.015
KPSP	Palm Springs Airport	3.363	1.352	0.736	0.467	0.144	0.073	0.031	0.010
KRAL	Riverside Airport	4.141	1.678	0.922	0.588	0.177	0.088	0.038	0.013
KSMO	Santa Monica Airport	3.444	1.336	0.731	0.462	0.139	0.068	0.028	0.008
KSNA	John Wayne Int'l Airport	4.041	1.605	0.870	0.549	0.164	0.079	0.032	0.010
KTRM	Desert Hot Springs Airport	3.820	1.553	0.848	0.540	0.163	0.082	0.035	0.010
KVNY	Van Nuys Airport	2.909	1.132	0.608	0.378	0.111	0.055	0.022	0.007

Table 12.2A – Screening Tables for Gasoline Dispensing Facilities

Aboveground Storage Tank (AST) **Residential**

MICR per One Million Gallons of Gasoline

		Downwind Distance (meters)							
Station Abbr.	**Location**	**25**	**50**	**75**	**100**	**200**	**300**	**500**	**1000**
AZUS	**Azusa**	4.447	1.603	0.827	0.496	0.114	0.050	0.020	0.006
BNAP	**Banning**	5.469	2.176	1.185	0.748	0.210	0.101	0.042	0.013
CELA	**Central L.A.**	3.610	1.258	0.641	0.392	0.100	0.046	0.019	0.006
ELSI	**Lake Elsinore**	4.056	1.458	0.748	0.452	0.119	0.057	0.024	0.008
FONT	**Fontana**	4.812	1.787	0.940	0.569	0.145	0.067	0.027	0.008
MSVJ	**Mission Viejo**	3.600	1.276	0.650	0.395	0.108	0.052	0.021	0.007
PERI	**Perris**	4.639	1.733	0.904	0.558	0.144	0.069	0.029	0.009
PICO	**Pico Rivera**	3.720	1.342	0.699	0.421	0.106	0.049	0.019	0.006
RDLD	**Redlands**	5.809	2.218	1.154	0.685	0.132	0.062	0.026	0.008
UPLA	**Upland**	4.693	1.677	0.871	0.532	0.130	0.060	0.025	0.008
KBUR	**Burbank Airport**	3.940	1.493	0.808	0.493	0.139	0.069	0.028	0.008
KCNO	**Chino Airport.**	4.971	1.950	1.047	0.658	0.188	0.091	0.037	0.011
KCQT	**USC/Downtown L.A.**	5.393	1.959	1.002	0.604	0.133	0.058	0.024	0.007
KFUL	**Fullerton Airport**	3.614	1.336	0.699	0.429	0.118	0.058	0.024	0.007
KHHR	**Hawthorne Airport**	4.415	1.593	0.837	0.511	0.140	0.067	0.027	0.008
KLAX	**Los Angeles Int'l Airport**	5.624	2.316	1.257	0.794	0.227	0.111	0.047	0.015
KLGB	**Long Beach Airport**	4.450	1.829	0.993	0.621	0.172	0.083	0.035	0.011
KONT	**Ontario Airport**	5.990	2.494	1.370	0.862	0.249	0.121	0.051	0.017
KPSP	**Palm Springs Airport**	4.148	1.691	0.915	0.573	0.163	0.080	0.034	0.010
KRAL	**Riverside Airport**	5.770	2.318	1.244	0.776	0.202	0.096	0.041	0.013
KSMO	**Santa Monica Airport**	4.771	1.829	0.977	0.596	0.159	0.074	0.031	0.009
KSNA	**John Wayne Int'l Airport**	5.072	2.017	1.085	0.674	0.186	0.088	0.036	0.010
KTRM	**Desert Hot Springs Airport**	4.681	1.917	1.040	0.660	0.183	0.091	0.039	0.012
KVNY	**Van Nuys Airport**	3.673	1.428	0.760	0.467	0.127	0.060	0.025	0.008

Table 1-1

Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

*Notes:

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in Table 1-2.