The Park @ Live Oak

ENERGY ANALYSIS

CITY OF IRWINDALE

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LIST OF ABBREVIATED TERMS

(1)	Reference
AQIA	Air Quality Impact Analysis
ARB	Air Resources Board
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEC	California Energy Commission
CPUC	California Public Utilities Commission
EVs	Electric Vehicles
EMFAC	Emissions Factor
FERC	Federal Energy Regulatory Commission
GPA	General Plan Amendment
GWh	Gigawatt Hour
HHD	Heavy-Heavy Duty
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
LHD	Light-Heavy Duty
MHD	Medium-Heavy Duty
MPG	Miles Per Gallon
MPO	Metropolitan Planning Organization
Project	The Park @ Live Oak
SCE	Southern California Edison
SoCalGas	Southern California Gas
SF	Square Feet
TEA-21	Transportation Equity Act for the 21st Century
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

For new development such as that proposed by The Park @ Live Oak, compliance with California Building Standards Code Title 24 energy efficiency requirements (CalGreen), combined with the mitigation measures that are recommended by The Park @ Live Oak Air Quality Impact Analysis, are considered demonstrable evidence of efficient use of energy. As discussed below, the Project would provide for, and promote, energy efficiencies beyond those required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the Project's operation is calculated to be comparable to, or less than, energy consumed by other industrial, warehouse, business park, and commercial uses of similar scale and intensity that are constructed and operating in California. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the Project would not cause or result in the need for additional energy producing facilities or energy delivery systems.

1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed The Park @ Live Oak (referred to as "Project"). The purpose of this report is to ensure that energy implication is considered by the City of Irwindale, as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The proposed The Park @ Live Oak Project is located west of the Interstate 605 (I-605) freeway between Arrow Highway and Live Oak Avenue in the City of Irwindale, as shown on Exhibit 1-A. I-605 is located immediately east of the Project site, and El Monte Airport is located roughly 2.8 miles southwest of the Project site. Existing land uses in the Project study area include quarry and industrial uses north, east, and west of the Project site, and the Irwindale Event Center to the south across Live Oak Avenue.

1.2 PROJECT DESCRIPTION

The Project Applicant is proposing the entitlement of a Specific Plan for the Project site. The proposed Specific Plan identifies allowable uses for each Planning Area (PA), specifies the maximum square footage of building space permitted, and sets forth development standards and guidelines that will be required to be followed when development is implemented. For purposes of this energy analysis, the analysis has assumed the following mix of land uses based on (i) the allowable uses and intensities identified in the Specific Plan and (ii) a conservative assessment of potential market absorption:

- PA 1: 412,500 square feet High-Cube Fulfillment Center Warehouse[1]
- PA 1: 412,500 square feet of High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)
- PA 1A: 8,700 square feet of Fast Food Restaurant with Drive-through Window
- PA 1A: 12,000 square feet of Fast Food Restaurant without Drive-through Window
- PA 1A: 12,000 square feet of Commercial Retail use
- PA 1A: 8 vehicle fueling position Gas Station with Convenience Market
- PA 2: 218,400 square feet of High-Cube Transload and Short-Term Storage Warehouse (Without Cold Storage)
- PA 2: 54,600 square feet of General Light Industrial
- PA 2: 60,000 square feet of Warehousing
- PA 3: 102,000 square feet of Manufacturing
- PA 3: 191,400 square feet of Warehousing

[1] It should be noted that 387,500 square feet of the 412,500 square feet of High-Cube Fulfillment Center Warehouse can be used as High-Cube Warehouse (With Cold Storage). Please refer to Appendix 3.2 of the AQIA for more detailed explanation on how Project land uses have been analyzed,

- PA 3A: 3,000 square feet of Coffee-shop with Drive-Through Window
- PA 3A: 7,000 square feet of Fast Food Restaurant without Drive-through Window
- PA 3A: 10,500 square feet of Commercial Retail use
- PA 4: 47,000 square feet of Commercial Retail use

The Specific Plan land use plan showing the various planning areas is shown on Exhibit 1-B. The anticipated Opening Year for the Project is 2020.

Per *The Park @ Live Oak Traffic Impact Analysis* prepared by Urban Crossroads, Inc. the Project is expected to generate a net total of approximately 14,607 trip-ends per day (actual vehicles). (1) The Project trip generation includes 808 truck trip-ends per day from the proposed Project site. This energy study relies on the Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network.

1.3 CONSTRUCTION AND OPERATIONAL-SOURCE ENERGY MITIGATION MEASURES

The Project would not result in an efficient, wasteful, or unnecessary consumption of energy. As such, no mitigation measures are recommended.

EXHIBIT 1-A: LOCATION MAP

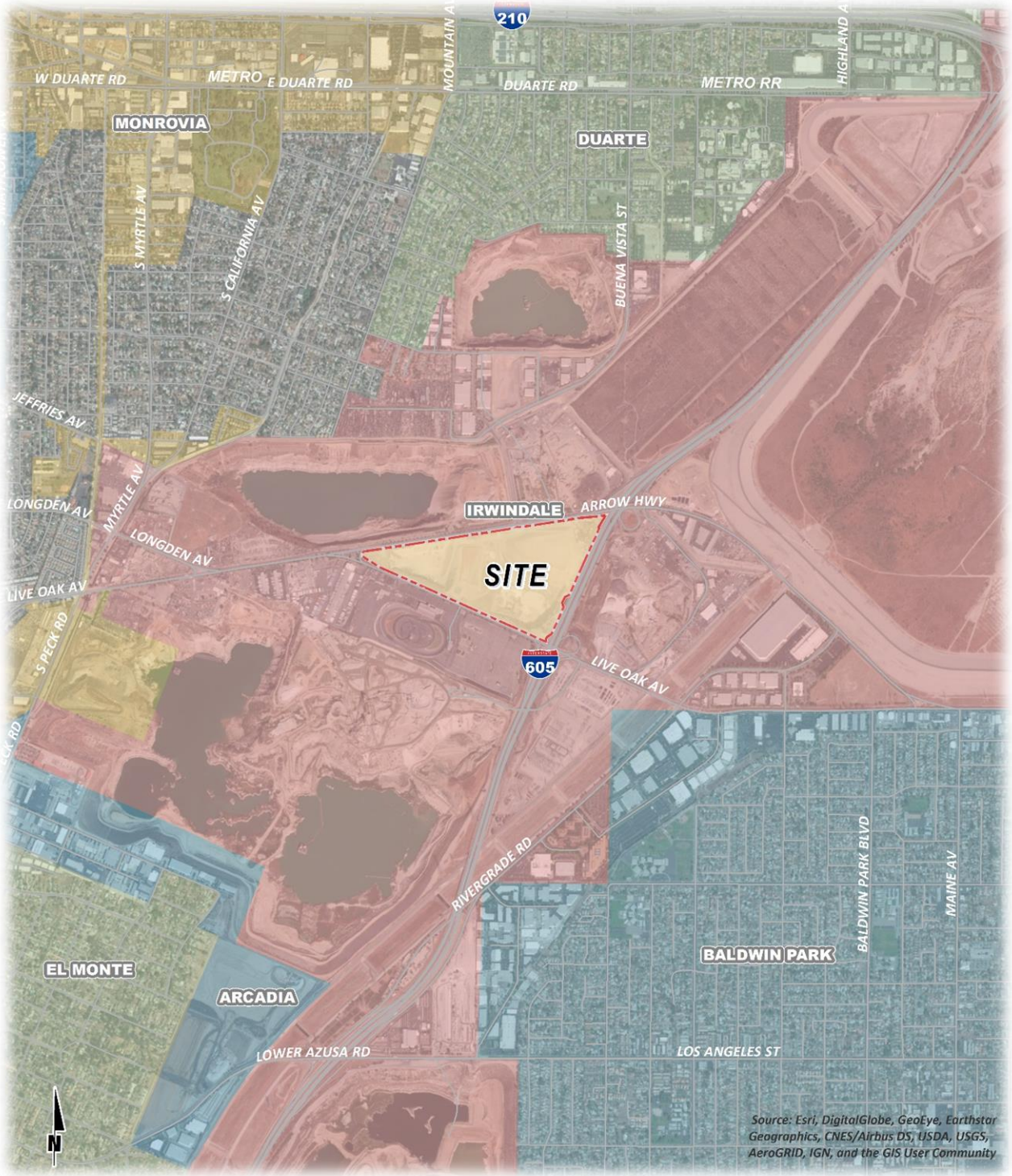
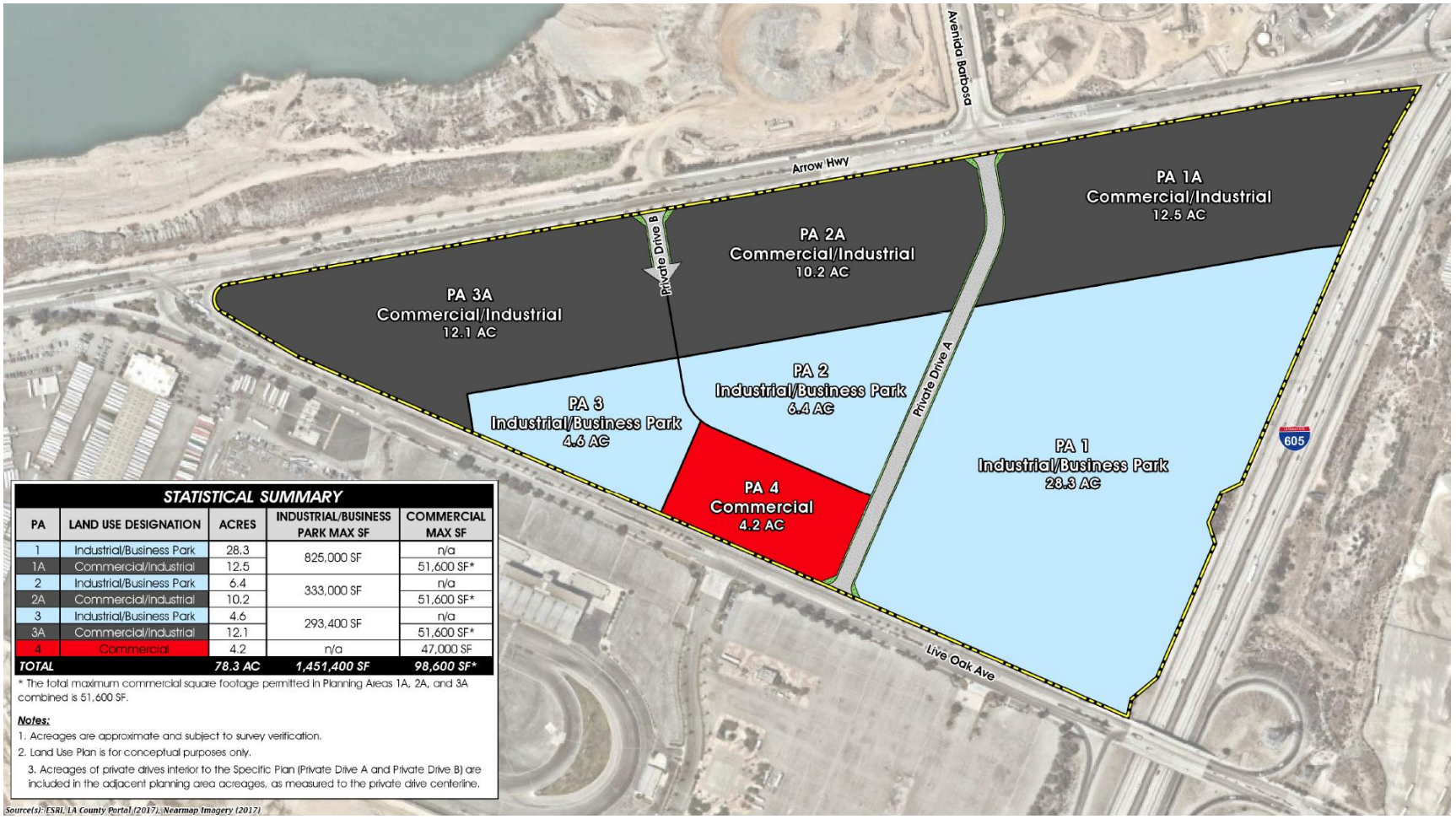


EXHIBIT 1-B: SPECIFIC PLAN LAND USE PLAN



STATISTICAL SUMMARY

PA	LAND USE DESIGNATION	ACRES	INDUSTRIAL/BUSINESS PARK MAX SF	COMMERCIAL MAX SF
1	Industrial/Business Park	28.3	825,000 SF	n/a
1A	Commercial/Industrial	12.5		51,600 SF*
2	Industrial/Business Park	6.4	333,000 SF	n/a
2A	Commercial/Industrial	10.2		51,600 SF*
3	Industrial/Business Park	4.6	293,400 SF	n/a
3A	Commercial/Industrial	12.1		51,600 SF*
4	Commercial	4.2	n/a	47,000 SF
TOTAL		*78.3 AC*	*1,451,400 SF*	*98,600 SF**

* The total maximum commercial square footage permitted in Planning Areas 1A, 2A, and 3A combined is 51,600 SF.

Notes:

1. Acreages are approximate and subject to survey verification.
2. Land Use Plan is for conceptual purposes only.
3. Acreages of private drives interior to the Specific Plan (Private Drive A and Private Drive B) are included in the adjacent planning area acreages, as measured to the private drive centerline.

Source(s): ESRI, LA County Portal (2017), Nearmap Imagery (2017)

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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project area and region.

2.1 OVERVIEW

As of 2016, the year of the most recent data currently available, California's estimated annual energy use included:

- Approximately 198,227 gigawatt hours of electricity; (2)
- Approximately 2,177,467 million cubic feet of natural gas per year (3); and
- Approximately 18.5 billion gallons of transportation fuel (for the year 2014) (4).

As of 2015, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 39.2 percent transportation;
- Approximately 24.0 percent industrial;
- Approximately 17.7 percent residential; and
- Approximately 19.1 percent commercial. (5)

California's massive electricity in-state generation system generates approximately 198,227 gigawatt-hours each year and is transported over the state's 32,000 miles of transmission lines. In 2016, California produced close to 68% of the electricity it uses; the rest was imported from the Pacific Northwest (15%) and the U.S. Southwest (17%). Natural gas is the main source for electricity generation at 50% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2016)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	324	0.16%	373	11,310	12,006	4.13%
Large Hydro	24,410	12.31%	3367	1,904	29,681	10.21%
Natural Gas	98,831	49.86%	41	7,120	105,992	36.48%
Nuclear	18,931	9.55%	0	7,739	26,670	9.18%
Oil	37	0.0%	0	0	37	0.01%
Other	394	0.2%	0	0	394	0.14%
Renewables	55,300	27.90%	11,710	6,952	73,961	25.45%
Biomass	5,868	2.96%	659	25	6,553	2.26%
Geothermal	11,582	5.84%	96	1038	12,717	4.38%
Small Hydro	4,567	2.30%	229	1	4,796	1.65%
Solar	19,783	9.98%	0	3,791	23,574	8.11%
Wind	13,500	6.81%	10,725	2,097	26,321	9.06%
Unspecified Sources of Power	N/A	N/A	26,888	14,937	41,825	14.39%
Total	**198,227**	**100.00%**	**42,378**	**49,963**	**290,567**	**100.00%**

Source: http://energyalmanac.ca.gov/electricity/total_system_power.html

A summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- Excluding federal offshore areas, California was the third-largest producer of petroleum among the 50 states in 2016, after Texas and North Dakota, and, as of January 2017, third in oil refining capacity, with a combined capacity of almost 2 million barrels per calendar day at the state's 18 operable refineries.
- In 2015, California accounted for one-fifth of the nation's jet fuel consumption.
- California's total energy consumption ranks amount the highest in the nation, but, in 2015, the state's per capita energy consumption ranked 49th, due in part to its mild climate and its energy efficiency programs.
- In 2016, California ranked third in the nation in conventional hydroelectric generation, second in net electricity generation from all other renewable energy resources combined, and first as a producer of electricity from solar, geothermal, and biomass resources.
- California leads the nation in solar thermal electricity capacity and generation. In 2016, California had 73% of the nation's capacity and produced 71% of the nation's utility-scale electricity generation from solar thermal resources (6).

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the proposed Project being an industrial development, the remainder of this discussion will focus on

the three sources of energy that are most relevant to the Project—namely, electricity and natural gas for industrial uses, and transportation fuel for vehicle trips associated with industrial uses planned for the Project.

2.2 ELECTRICITY

The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies had revealed the extent to which the Los Angeles Basin and San Diego region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (2013 IEPR) after a collaborative process with other energy agencies, utilities, and air districts (7). If the resource development outlined in the preliminary plan continues as detailed, reliability in Southern California would likely be assured; however, tight resource margins have led energy agencies and the ARB to develop a contingency plan. This contingency plan was discussed at a public workshop in Los Angeles on August 20, 2014, and is detailed within this Section (8).

Electricity would be provided to the Project by Southern California Edison (SCE). SCE provides electric power to more than 14 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (9)

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator ("ISO") is a nonprofit public benefit corporation, and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California residential and commercial users. While utilities [such as SCE] still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that sufficient power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities. (10)

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the

western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Table 2-2 identifies SCE's specific proportional shares of electricity sources in 2016. As indicated in Table 2-2, shows the 2016 SCE Power Mix has renewable energy at 25% of the overall energy resources. Geothermal is remaining steady at 4%. Wind power is remaining steady at 9%, decreasing from 10% in 2014. Large hydro is at 10%, having increased from 3% in 2014. Solar energy is at 8% having increased from 4% in 2014. Biomass and waste has increased to 2% from 1% in 2014. Coal is at 4% having increased from 0%, in 2014 and having decreased significantly from 6% in 2013 and from 7% in 2012. Natural gas is at 37% having increased from 27%, in 2014 and 28% in 2013.

TABLE 2-2: SCE 2016 POWER CONTENT MIX

Energy Resources	2016 SCE Power Mix
Eligible Renewable	**25%**
Biomass & waste	2%
Geothermal	4%
Small Hydroelectric	2%
Solar	8%
Wind	9%
Coal	**4%**
Large Hydroelectric	**10%**
Natural Gas	**37%**
Nuclear	**9%**
Other	**0%**
Unspecified Sources of power*	15%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

Natural gas would be provided to the Project by The Gas Company (Southern California Gas, SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

> "The California Public Utilities Commission (PUC) regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers, who accounted for approximately 32% of the natural gas delivered by California utilities in 2012. Large consumers, like electric generators and industrial customers, referred to as "noncore" customers, accounted for approximately 68% of the natural gas delivered by California utilities in 2012.

The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. In 2012, California customers received 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California. California gas utilities may soon also begin receiving biogas into their pipeline systems.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California consumers are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, the Ruby Pipeline, Questar Southern Trails and Mojave Pipeline. Another pipeline, the North Baja – Baja Norte Pipeline, takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, the PUC often participates in FERC regulatory proceedings to represent the interests of California natural gas consumers.

Most of the natural gas transported via the interstate pipelines, as well as some of the California-produced natural gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" natural gas pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered into the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large noncore customers take natural gas directly off the high pressure backbone pipeline systems, while core customers and other noncore customers take natural gas off the utilities' distribution pipeline systems. The PUC has regulatory jurisdiction over 150,000 miles of utility-owned natural gas pipelines, which transported 82% of the total amount of natural gas delivered to California's gas consumers in 2012.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, and currently receive all of their natural gas from the SoCalGas system (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area). Some other municipal wholesale customers are the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Some of the natural gas delivered to California customers may be delivered directly to them without being transported over the regulated utility systems. For example, the Kern

River/Mojave pipeline system can deliver natural gas directly to some large customers, "bypassing" the utilities' systems. Much of California-produced natural gas is also delivered directly to large consumers.

PG&E and SoCalGas own and operate several natural gas storage fields that are located in northern and southern California. These storage fields, and four independently owned storage utilities – Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage – help meet peak seasonal natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. (A portion of the Gill Ranch facility is owned by PG&E).

California's regulated utilities do not own any natural gas production facilities. All of the natural gas sold by these utilities must be purchased from suppliers and/or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the FERC in the mid-1980's and is determined by "market forces." However, the PUC decides whether California's utilities have taken reasonable steps in order to minimize the cost of natural gas purchased on behalf of their core customers." (11)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The PUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. As of 2017, there are more than 35 million registered vehicles in California (12), and those vehicles (as noted previously) consume an estimated 19 billion gallons of fuel each year[2]. Gasoline (and other vehicle fuels) are commercially-provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 170,000 miles of highways and major roadways, more than 27 million passenger vehicles and light trucks, and almost 8 million medium- and heavy-duty vehicles (12). The most recent data available (2015) shows the transportation sector emits 37 percent of the total greenhouse gases in the state and about 81 percent of smog-forming oxides of nitrogen (NO_x) (13) (14). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. Petroleum comprises about 92 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (15). Nearly 19 billion gallons of on-highway fuel are burned each year, including 15.1 billion gallons of gasoline (including ethanol) and 3.9 billion gallons of diesel fuel (including biodiesel and

[2] Fuel consumptions estimated utilizing information from EMFAC2014.

renewable diesel)[3]. In 2016, Californians also used 194 million therms of natural gas as a transportation fuel (16), or the equivalent of 155 million gallons of gasoline.

[3] Fuel consumptions estimated utilizing information from EMFAC2014.

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below. Project consistency with applicable federal and state regulations is also presented in *italicized* text.

3.1 FEDERAL REGULATIONS

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. *Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site.*

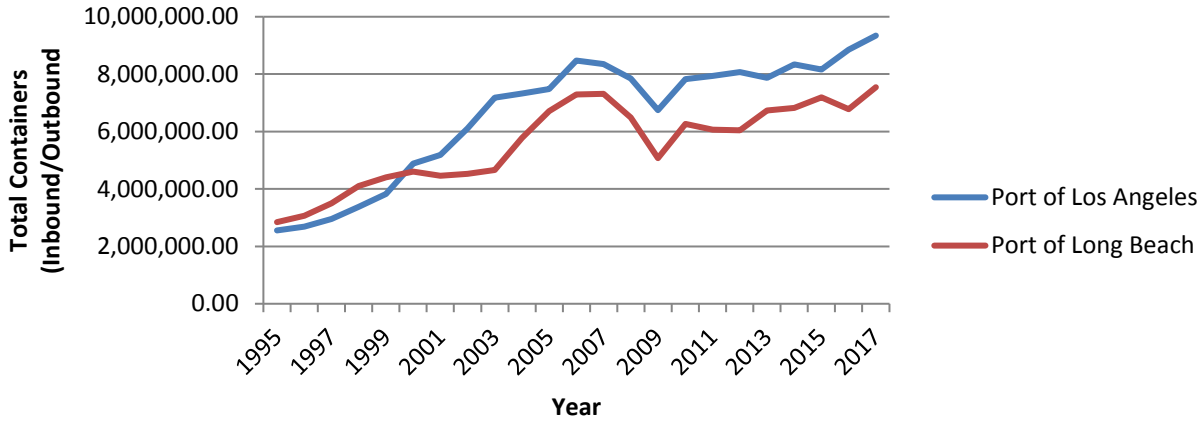
The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.*

As shown on Exhibit 3-A, data from both the Port of Los Angeles and the Port of Long Beach shows that the receiving and shipping of containers have had a stable trend since the recession that hit in 2007 (17) (18)*. Therefore, truck transport from the ports is relatively stable and a Project of this type would not be increasing the amount of truck trips and consequently VMT than what would normally occur within the basin. As such, the estimation of The Park @ Live Oak Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.*

Additionally, the Southern California Association of Governments' (SCAG's) 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) includes information on goods movement that clearly illustrates that of the port-related trips within the SCAG region, more than 85% have an origin or destination within Los Angeles County. As a result, the Project would serve to meet this demand and not be expected to increase trips or VMT in the air basin.

EXHIBIT 3-A: PORT OF LOS ANGELES/PORT OF LONG BEACH CONTAINER COUNTS



3.2 CALIFORNIA REGULATIONS

Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301a]). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2016 Integrated Energy Policy Report (2016 IEPR) was published in February 2017, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2016 IEPR focuses on a variety of topics such as including the environmental

performance of the electricity generation system, landscape-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, updates on Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the California Energy Demand Forecast (19).

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through the introduction of commercial uses on a commercially-designated site. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.*

California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, the Energy Commission's energy efficiency standards have saved Californians billions in reduced electricity bills since 1977. (20)

The newest 2016 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2017. The CEC indicates that the 2016 Title 24 standards will reduce energy consumption by 5 percent for nonresidential buildings above that achieved by the 2013 Title 24.

The Project would be designed, constructed and operated so as to exceed incumbent Title 24 Energy Efficiency Standards by a minimum of three percent. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards.

4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

In compliance with Appendix F of the *State CEQA Guidelines,* (21) this report analyzes the Project's anticipated energy use to determine if the Project would:

- Result in the wasteful, inefficient or unnecessary consumption of energy; or
- Result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

4.2 METHODOLOGY

Information from the CalEEMod 2016.3.2 outputs for The Park @ Live Oak Air Quality Impact Analysis, Urban Crossroads (2018) (22) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands. These outputs can be referenced in Appendix 3.1.

4.3 CONSTRUCTION ENERGY DEMANDS

4.3.1 CONSTRUCTION EQUIPMENT ELECTRICITY USAGE ESTIMATES

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project. Based on the 2017 National Construction Estimator, Richard Pray (2017) (23), the typical power cost per 1,000 square feet of building construction per month is estimated to be $2.32. For The Park @ Live Oak development, the Project plans to develop 1,553.60[4] thousand square feet of building space over the course of approximately 17 months. Based on Table 4-1, the total power cost of the on-site electricity usage during the construction of the proposed Project is estimated to be approximately $61,273.98. Additionally, as of June 1, 2018, SCE's general service rate schedule (GS-1) for an industrial/commercial land uses is $.07 per kWh of electricity (24). As shown on Table 4-2, the total electricity usage from on-site Project construction related activities is estimated to be approximately 875,343 kWh.

[4] *The Park @ Live Oak Traffic Impact Analysis* report identifies 1,551.60 thousand square feet of buildings to be constructed. The Project also proposes to construct an 8-vehicle fueling position (VFP) Gasoline Station with Market. By ITE definition, the gross floor area of the convenience market is between 2,000 and 3,000 square feet. For purposes of this energy analysis report, it is assumed that the convenience market is approximately 2,000 square feet. Thus the total building area proposed by the Project is approximately 1,551.60 thousand square feet.

TABLE 4-1: PROJECT CONSTRUCTION POWER COST

Power Cost (per 1,000 SF of building per month of construction)	**Total Building Size** (1,000 SF)	**Construction Duration** (months)	**Total Project Construction Power Cost**
$2.32	1,553.60	17	$61,273.98

TABLE 4-2: PROJECT CONSTRUCTION ELECTRICITY USAGE

Cost per kWh	**Total Project Construction Electricity Usage (kWh)**
$0.07	875,343

[1]Assumes the Project will be under the GS-1 General Industrial service rate under SCE

4.3.2 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-3. Eight-hour daily use of all equipment is assumed. The aggregate fuel consumption rate for all equipment is estimated at 18.5 hp-hr-gal., obtained from California Air Resources Board (CARB) 2013 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (25). For the purposes of this analysis, that the calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the County and region.

As presented in Table 4-3, Project construction activities would consume an estimated 95,658 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-3: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Site Preparation (40 days)	Crawler Tractors	212	4	8	0.43	2,917	6,307
	Rubber Tired Dozers	247	3	8	0.40	2,371	5,127
Grading (110 days)	Crawler Tractors	212	2	8	0.43	1,459	8,673
	Excavators	158	2	8	0.38	961	5,712
	Graders	187	1	8	0.41	613	3,647
	Rubber Tired Dozers	247	1	8	0.40	790	4,700
	Scrapers	367	2	8	0.48	2,819	16,759
Building Construction (230 days)	Cranes	231	1	8	0.29	536	6,663
	Crawler Tractors	212	3	8	0.43	2,188	13,009
	Forklifts	89	3	8	0.20	427	5,311
	Generator Sets	84	1	8	0.74	497	6,182
	Welders	46	1	8	0.45	166	2,059
Paving (75 days)	Pavers	130	2	8	0.42	874	3,542
	Paving Equipment	132	2	8	0.36	760	3,082
	Rollers	80	2	8	0.38	486	1,972
Architectural Coating (180 days)	Air Compressors	78	1	8	0.48	300	2,914
CONSTRUCTION FUEL DEMAND (gallons diesel fuel)							***95,658***

4.3.3 CONSTRUCTION WORKER FUEL ESTIMATES

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. With respect to estimated VMT, the construction worker trips would generate an estimated 2,851,874 VMT (26). Data regarding Project related construction worker trips were based on CalEEMod 2016.3.2 model defaults utilized within the Project's AQIA.

Vehicle fuel efficiencies for LDA were estimated using information generated within the 2014 version of the Emissions FACtor model (EMFAC) developed by the Air Resources Board (ARB). EMFAC 2014 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (27). EMFAC 2014 was run for the LDA vehicle class within the California sub-area for a 2020 calendar year. Data from EMFAC 2014 is shown in Appendix 3.2.

As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2020 are estimated to have a fuel efficiency of 27.59 miles per gallon (MPG). Table 4-4 provides an estimated annual fuel consumption resulting from Project generated light duty autos related to construction worker trips. Based on Table 4-4, it is estimated that 103,366 gallons of fuel will be consumed related to construction worker trips after full construction of the proposed Project. Project construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-4: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation (40 days)	18	14.7	10,584	27.59	384
Grading (110 days)	20	14.7	32,340	27.59	1,172
Building Construction (230 days)	714	14.7	2,414,034	27.59	87,497
Architectural Coating (180 days)	143	14.7	378,378	27.59	13,714
Paving (75 days)	15	14.7	16,538	27.59	599
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION					**103,366**

4.3.4 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor/hauling trips would generate an estimated 447,534 VMT along area roadways (22). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD) and 50% are from heavy-heavy duty trucks (HHD). These assumptions are consistent with the 2016.3.2 CalEEMod defaults utilized within The Park @ Live

Oak Air Quality Impact Analysis. Vehicle fuel efficiencies for MHD and HHD trucks were estimated using information generated within EMFAC 2014. For purposes of this analysis, EMFAC 2014 was run for the MHD and HHD vehicle class within the California sub-area for a 2020 calendar year. Data from EMFAC 2014 is shown in Appendix 3.2.

As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2020 are estimated to have a fuel efficiency of 8.34 mpg. Additionally, HHD trucks are estimated to have a fuel efficiency of 5.68 mpg.

Table 4-5 and Table 4-6 shows the estimated fuel economy of MHD and HHD trucks accessing the Project site. Based on Table 4-5 and Table 4-6, fuel consumption from construction hauling and vendor trips (medium and heavy-duty trucks) will total approximately 66,266 gallons. Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-5: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (MHD TRUCKS) [5]

Construction Activity	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Building Construction (230 days)	141	6.9	223,767	8.34	26,831

TABLE 4-6: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (HHD TRUCKS) [6]

Construction Activity	Vendor Trips/ Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Building Construction (230 days)	141	6.9	223,767	5.68	39,396

4.3.5 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

The equipment used for Project construction would conform to CARB regulations and CA emissions standards and would evince related fuel efficiencies. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in

[5] Assumptions for the vendor trip length and vehicle miles traveled are consistent with 2013.2.2 model defaults utilized within the The Park @ Live Oak Air Quality Impact Analysis.

[6] Assumptions for the vendor trip length and vehicle miles traveled are consistent with 2013.2.2 model defaults utilized within the The Park @ Live Oak Air Quality Impact Analysis.

construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The Project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, certain incidental construction-source energy efficiencies would likely accrue through implementation of California regulations and best available control measures (BACM). More specifically, California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. To this end, "grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Indirectly, construction energy efficiencies and energy conservation would be achieved for the proposed development through energy efficiencies realized from bulk purchase, transport and use of construction materials.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.3.6 SUMMARY

The estimated power cost of on-site electricity usage during the construction of the proposed Project is assumed to be around $61,273.98. Additionally, based on the assumed power cost, it

is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be around 875,343 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 95,658 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Best available control measures inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the proposed Project would result in the estimated fuel consumption of 103,366 gallons of fuel. Additionally, fuel consumption from construction vendor trips (medium and heavy-duty trucks) will total approximately 66,266 gallons. Diesel fuel would be supplied by County and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of bulk purchases, transport and use of construction materials. The 2016 IEPR released by the California Energy Commission has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (28). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.4 Operational Energy Demands

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site.

Light Duty Autos

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 46,878,154 annual VMT along area roadways for all passenger cars with full build-out of the Project (22). As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2020 are estimated to have a fuel efficiency of 27.59 mpg. Table

4-7 provides an estimated range of annual fuel consumption resulting from Project generated LDAs. Based on Table 4-7, it is estimated that 1,699,099 gallons of fuel will be consumed from Project generated LDA trips.

TABLE 4-7: PROJECT-GENERATED PASSENGER CAR TRAFFIC ANNUAL FUEL CONSUMPTION

Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
46,878,154	27.59	1,699,099

LIGHT-HEAVY DUTY TRUCKS

With respect to estimated VM,T and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 2,388,579 annual VMT along area roadways for all LHD trucks with full build-out of the Project (22). As generated by EMFAC 2014, an aggregated fuel economy of LHD trucks ranging from model year 1974 to model year 2020 are estimated to have a fuel efficiency of 13.98 mpg. Table 4-8 provides an estimated range of annual fuel consumption resulting from Project generated LHD trucks. Based on Table 4-8, it is estimated that 170,857 gallons of fuel will be consumed from Project generated LHD truck trips.

TABLE 4-8: PROJECT-GENERATED LHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
2,388,579	13.98	170,857

MEDIUM-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 1,514,596 annual VMT along area roadways for all MHD trucks with full build-out of the Project (22). As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2020 are estimated to have a fuel efficiency of 8.34 mpg. Table 4-9 provides an estimated range of annual fuel consumption resulting from Project generated MHD trucks. Based on Table 4-9, it is estimated that 181,606 gallons of fuel will be consumed from Project generated MHD truck trips.

TABLE 4-9: PROJECT-GENERATED MHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
1,514,596	8.34	181,606

HEAVY-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated

5,141,898 annual VMT along area roadways for all HHD trucks with full build-out of the Project (22). The total annual VMT produced by the Project for all HHD trucks is 5,141,898. As generated by EMFAC 2014, an aggregated fuel economy of HHD trucks ranging from model year 1974 to model year 2020 are estimated to have a fuel efficiency of 5.68 mpg. Table 4-10 provides an estimated range of annual fuel consumption resulting from Project generated HHD trucks. Based on Table 4-10, it is estimated that 905,264 gallons of fuel will be consumed from Project generated HHD truck trips.

TABLE 4-10: PROJECT-GENERATED HHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
5,141,898	5.68	905,264

As summarized on Table 4-11, the Project will result in 55,923,227 annual VMT and an estimated annual fuel consumption of 2,956,826 gallons of fuel.

TABLE 4-11: PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)

Vehicle Type	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Light Duty Autos	46,878,154	1,699,099
LHD Trucks	2,388,579	170,857
MHD Trucks	1,514,596	181,606
HHD Trucks	5,141,898	905,264
Total (All Vehicles)	**55,923,227**	**2,956,826**

4.4.2 FACILITY ENERGY DEMANDS

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied to the Project by Southern California Edison. Annual natural gas and electricity demands of the Project are summarized in Table 4-12.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting (29). Non-building energy use, or “plug-in” energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

TABLE 4-12: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Natural Gas Demand	kBTU/year
Other Asphalt Surfaces	0
General Light Industry	988,260
Manufacturing	1,850,000
Refrigerated Warehouse-No Rail	399,125
Unrefrigerated Warehouse-No Rail	789,351
Convenience Market with Gas Pumps	1,852
Fast Food Restaurant without Drive Thru	692,280
Fast Food Restaurant with Drive Thru	6,390,000
Regional Shopping Center	113,980
Total Project Natural Gas Demand	**11,223,098**

Electricity Demand	kWh/year
Other Asphalt Surfaces	0
General Light Industry	606,060
Manufacturing	1,130,000
Refrigerated Warehouse-No Rail	6,490,000
Unrefrigerated Warehouse-No Rail	3,540,000
Convenience Market with Gas Pumps	15,247
Fast Food Restaurant without Drive Thru	132,420
Fast Food Restaurant with Drive Thru	1,220,000
Regional Shopping Center	938,250
Total Project Natural Gas Demand	**14,079,827**

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficient/energy conserving design features and operational programs that would be implemented under the Project are summarized below. Also noted in the following discussions, energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Code).

The Project would also not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. Although the Project includes a gasoline station, this would no result in an increase in demand as the gasoline station would serve existing and future demand. Additionally, if the gasoline station was no built at the Project site, employees and patrons of the

site would acquire gasoline at another location which would result in an increase in VMT and consequently an increase in fuel consumption.

Enhanced Vehicle Fuel Efficiencies

Estimated annual fuel consumption estimates presented previously in Table 4-11 represent likely potential maximums that would occur in the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

4.5 SUMMARY

4.5.1 TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the Project would result in an estimated 1,699,099 gallons of fuel consumption per year for LDAs. Additionally, the Project would result in an estimated 170,857 gallons of fuel consumption per year for LHD trucks. In regards to MHD trucks, the Project would result in an estimated 181,606 gallons of fuel consumption per year. For HHD trucks an estimated 905,264 gallons of fuel consumption per year is estimated for the year 2020. The total estimated annual fuel consumption from Project generated VMT would result in a fuel demand of 2,956,826 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other warehouse uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed., 2017); and California Emissions Estimator Model (CalEEMod) v2016.3.2. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of LDVs and HDVs to alternative energy sources (e.g., electricity, natural gas, bio fuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would also implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 11,223,098 kBTU/year of natural gas; and 14,079,827 kWh/year of electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied by Southern California Edison. The Project proposes conventional warehouse uses reflecting contemporary energy efficient/energy conserving

designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other warehouse projects of similar scale and configuration.

The Project would exceed the incumbent Title 24 standards by a minimum of three percent as previously discussed. Based on the preceding, Project facilities energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.6 CONCLUSIONS

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Notwithstanding, the Project proposes warehousing land use and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

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6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed The Park @ Live Oak Project. The information contained in this air quality impact report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

The Park @ Live Oak (Construction - Unmitigated)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	907.30	1000sqft	43.62	907,300.00	0
Refrigerated Warehouse-No Rail	387.50	1000sqft	18.49	387,500.00	0
General Light Industry	54.60	1000sqft	2.62	54,600.00	0
Manufacturing	102.00	1000sqft	4.90	102,000.00	0
Fast Food Restaurant with Drive Thru	27.70	1000sqft	1.34	27,700.00	0
Fast Food Restaurant w/o Drive Thru	3.00	1000sqft	0.15	3,000.00	0
Convenience Market With Gas Pumps	8.00	Pump	0.06	1,129.40	0
Regional Shopping Center	69.50	1000sqft	3.35	69,500.00	0
Other Asphalt Surfaces	3.79	Acre	3.79	165,092.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
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

Project Characteristics -

Land Use - Total Lot Acreage is 78.32.

Construction Phase - Construction Schedule adjusted as per direction provided by the Client.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment -

Off-road Equipment - Hours are based on an 8-hour workday.

Grading -

Architectural Coating - Rule 1113.

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstructionPhase	NumDays	110.00	180.00
tblConstructionPhase	NumDays	1,550.00	230.00
tblConstructionPhase	NumDays	155.00	110.00
tblConstructionPhase	NumDays	110.00	75.00
tblConstructionPhase	NumDays	60.00	40.00
tblConstructionPhase	PhaseEndDate	6/25/2027	12/18/2020
tblConstructionPhase	PhaseEndDate	8/21/2026	12/11/2020

tblConstructionPhase	PhaseEndDate	9/11/2020	1/24/2020
tblConstructionPhase	PhaseEndDate	1/22/2027	12/18/2020
tblConstructionPhase	PhaseEndDate	2/7/2020	8/23/2019
tblConstructionPhase	PhaseStartDate	1/23/2027	4/11/2020
tblConstructionPhase	PhaseStartDate	9/12/2020	1/25/2020
tblConstructionPhase	PhaseStartDate	2/8/2020	8/24/2019
tblConstructionPhase	PhaseStartDate	8/22/2026	9/5/2020
tblConstructionPhase	PhaseStartDate	11/16/2019	7/1/2019
tblEnergyUse	LightingElect	6.26	0.00
tblEnergyUse	LightingElect	7.87	0.00
tblEnergyUse	LightingElect	7.87	0.00
tblEnergyUse	LightingElect	3.10	0.00
tblEnergyUse	LightingElect	3.10	0.00
tblEnergyUse	LightingElect	2.73	0.00
tblEnergyUse	LightingElect	6.26	0.00
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24E	5.75	0.00
tblEnergyUse	NT24E	5.75	0.00
tblEnergyUse	NT24E	13.61	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	NT24NG	187.78	0.00

tblEnergyUse	NT24NG	4.45	0.00
tblEnergyUse	NT24NG	4.45	0.00
tblEnergyUse	NT24NG	0.09	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	4.01	0.00
tblEnergyUse	T24E	8.11	0.00
tblEnergyUse	T24E	8.11	0.00
tblEnergyUse	T24E	2.25	0.00
tblEnergyUse	T24E	2.25	0.00
tblEnergyUse	T24E	0.42	0.00
tblEnergyUse	T24E	4.01	0.00
tblEnergyUse	T24E	0.65	0.00
tblEnergyUse	T24NG	1.15	0.00
tblEnergyUse	T24NG	42.98	0.00
tblEnergyUse	T24NG	42.98	0.00
tblEnergyUse	T24NG	13.65	0.00
tblEnergyUse	T24NG	13.65	0.00
tblEnergyUse	T24NG	0.94	0.00
tblEnergyUse	T24NG	1.15	0.00
tblEnergyUse	T24NG	0.84	0.00
tblLandUse	LotAcreage	20.83	43.62
tblLandUse	LotAcreage	8.90	18.49
tblLandUse	LotAcreage	1.25	2.62
tblLandUse	LotAcreage	2.34	4.90
tblLandUse	LotAcreage	0.64	1.34
tblLandUse	LotAcreage	0.07	0.15

tblLandUse	LotAcreage	0.03	0.06
tblLandUse	LotAcreage	1.60	3.35
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00

tblVehicleTrips	CC_TL	8.40	0.00
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tblVehicleTrips	CC_TTP	80.20	0.00
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tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
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tblVehicleTrips	CNW_TTP	19.00	0.00
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tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
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tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
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tblVehicleTrips	ST_TR	722.03	0.00
tblVehicleTrips	ST_TR	1.32	0.00
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tblVehicleTrips	SU_TR	1.68	0.00

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tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	542.60	0.00
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tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	83,657.43	0.00
tblWater	IndoorWaterUseRate	910,601.14	0.00
tblWater	IndoorWaterUseRate	8,407,883.83	0.00
tblWater	IndoorWaterUseRate	12,626,250.00	0.00
tblWater	IndoorWaterUseRate	23,587,500.00	0.00
tblWater	IndoorWaterUseRate	89,609,375.00	0.00
tblWater	IndoorWaterUseRate	5,148,040.24	0.00
tblWater	IndoorWaterUseRate	209,813,125.00	0.00
tblWater	OutdoorWaterUseRate	51,273.91	0.00
tblWater	OutdoorWaterUseRate	58,123.48	0.00
tblWater	OutdoorWaterUseRate	536,673.44	0.00
tblWater	OutdoorWaterUseRate	3,155,250.47	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3755	4.3934	2.0764	4.5700e-003	0.8990	0.1824	1.0813	0.3812	0.1678	0.5490	0.0000	410.5683	410.5683	0.1262	0.0000	413.7228
2020	4.6637	9.2762	7.6832	0.0255	1.5130	0.2769	1.7898	0.3897	0.2590	0.6487	0.0000	2,333.8844	2,333.8844	0.2419	0.0000	2,339.9314
Maximum	**4.6637**	**9.2762**	**7.6832**	**0.0255**	**1.5130**	**0.2769**	**1.7898**	**0.3897**	**0.2590**	**0.6487**	**0.0000**	**2,333.8844**	**2,333.8844**	**0.2419**	**0.0000**	**2,339.9314**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3755	4.3934	2.0764	4.5700e-003	0.3592	0.1824	0.5415	0.1510	0.1678	0.3188	0.0000	410.5679	410.5679	0.1262	0.0000	413.7223
2020	4.6637	9.2762	7.6832	0.0255	1.3554	0.2769	1.6322	0.3581	0.2590	0.6171	0.0000	2,333.8837	2,333.8837	0.2419	0.0000	2,339.9307
Maximum	**4.6637**	**9.2762**	**7.6832**	**0.0255**	**1.3554**	**0.2769**	**1.6322**	**0.3581**	**0.2590**	**0.6171**	**0.0000**	**2,333.8837**	**2,333.8837**	**0.2419**	**0.0000**	**2,339.9307**

	ROG	NOx	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**	**28.91**	**0.00**	**24.29**	**33.97**	**0.00**	**21.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

The Park @ Live Oak (Construction - Unmitigated) - South Coast AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2019	9-30-2019	2.3987	2.3987
2	10-1-2019	12-31-2019	2.3480	2.3480
3	1-1-2020	3-31-2020	2.3956	2.3956
4	4-1-2020	6-30-2020	3.7324	3.7324
5	7-1-2020	9-30-2020	4.0769	4.0769
		Highest	4.0769	4.0769

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	6.3453	1.9000e-004	0.0201	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0388	0.0388	1.0000e-004	0.0000	0.0414
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3453**	**1.9000e-004**	**0.0201**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0388**	**0.0388**	**1.0000e-004**	**0.0000**	**0.0414**

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	6.3453	1.9000e-004	0.0201	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0388	0.0388	1.0000e-004	0.0000	0.0414
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3453**	**1.9000e-004**	**0.0201**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0388**	**0.0388**	**1.0000e-004**	**0.0000**	**0.0414**

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

3.0 Construction Detail

Construction Phase

The Park @ Live Oak (Construction - Unmitigated) - South Coast AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	8/23/2019	5	40	
2	Grading	Grading	8/24/2019	1/24/2020	5	110	
3	Building Construction	Building Construction	1/25/2020	12/11/2020	5	230	
4	Paving	Paving	9/5/2020	12/18/2020	5	75	
5	Architectural Coating	Architectural Coating	4/11/2020	12/18/2020	5	180	

Acres of Grading (Site Preparation Phase): 80

Acres of Grading (Grading Phase): 385

Acres of Paving: 3.79

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 2,329,094; Non-Residential Outdoor: 776,365; Striped Parking Area: 9,906 (Architectural Coating – sqft)

OffRoad Equipment

The Park @ Live Oak (Construction - Unmitigated) - South Coast AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Building Construction	Crawler Tractors	3	8.00	212	0.43
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	714.00	282.00	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	143.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4038	0.0000	0.4038	0.2032	0.0000	0.2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1168	1.3622	0.4628	1.1400e-003		0.0594	0.0594		0.0546	0.0546	0.0000	102.2713	102.2713	0.0324	0.0000	103.0802
Total	**0.1168**	**1.3622**	**0.4628**	**1.1400e-003**	**0.4038**	**0.0594**	**0.4631**	**0.2032**	**0.0546**	**0.2578**	**0.0000**	**102.2713**	**102.2713**	**0.0324**	**0.0000**	**103.0802**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7400e-003	1.3800e-003	0.0150	4.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.6695	3.6695	1.1000e-004	0.0000	3.6723
Total	**1.7400e-003**	**1.3800e-003**	**0.0150**	**4.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.6695**	**3.6695**	**1.1000e-004**	**0.0000**	**3.6723**

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					0.1575	0.0000	0.1575	0.0793	0.0000	0.0793	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1168	1.3622	0.4628	1.1400e-003		0.0594	0.0594		0.0546	0.0546	0.0000	102.2712	102.2712	0.0324	0.0000	103.0801
Total	**0.1168**	**1.3622**	**0.4628**	**1.1400e-003**	**0.1575**	**0.0594**	**0.2168**	**0.0793**	**0.0546**	**0.1339**	**0.0000**	**102.2712**	**102.2712**	**0.0324**	**0.0000**	**103.0801**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7400e-003	1.3800e-003	0.0150	4.0000e-005	3.9500e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.6695	3.6695	1.1000e-004	0.0000	3.6723
Total	**1.7400e-003**	**1.3800e-003**	**0.0150**	**4.0000e-005**	**3.9500e-003**	**3.0000e-005**	**3.9800e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.6695**	**3.6695**	**1.1000e-004**	**0.0000**	**3.6723**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4812	0.0000	0.4812	0.1743	0.0000	0.1743	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2526	3.0263	1.5602	3.2900e-003		0.1229	0.1229		0.1131	0.1131	0.0000	295.2501	295.2501	0.0934	0.0000	297.5854
Total	**0.2526**	**3.0263**	**1.5602**	**3.2900e-003**	**0.4812**	**0.1229**	**0.6041**	**0.1743**	**0.1131**	**0.2874**	**0.0000**	**295.2501**	**295.2501**	**0.0934**	**0.0000**	**297.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.4400e-003	3.5300e-003	0.0384	1.0000e-004	0.0101	8.0000e-005	0.0102	2.6800e-003	7.0000e-005	2.7500e-003	0.0000	9.3775	9.3775	2.9000e-004	0.0000	9.3848
Total	**4.4400e-003**	**3.5300e-003**	**0.0384**	**1.0000e-004**	**0.0101**	**8.0000e-005**	**0.0102**	**2.6800e-003**	**7.0000e-005**	**2.7500e-003**	**0.0000**	**9.3775**	**9.3775**	**2.9000e-004**	**0.0000**	**9.3848**

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	tons/yr										MT/yr					
Fugitive Dust					0.1877	0.0000	0.1877	0.0680	0.0000	0.0680	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2526	3.0263	1.5602	3.2900e-003		0.1229	0.1229		0.1131	0.1131	0.0000	295.2497	295.2497	0.0934	0.0000	297.5851
Total	**0.2526**	**3.0263**	**1.5602**	**3.2900e-003**	**0.1877**	**0.1229**	**0.3106**	**0.0680**	**0.1131**	**0.1811**	**0.0000**	**295.2497**	**295.2497**	**0.0934**	**0.0000**	**297.5851**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.4400e-003	3.5300e-003	0.0384	1.0000e-004	0.0101	8.0000e-005	0.0102	2.6800e-003	7.0000e-005	2.7500e-003	0.0000	9.3775	9.3775	2.9000e-004	0.0000	9.3848
Total	**4.4400e-003**	**3.5300e-003**	**0.0384**	**1.0000e-004**	**0.0101**	**8.0000e-005**	**0.0102**	**2.6800e-003**	**7.0000e-005**	**2.7500e-003**	**0.0000**	**9.3775**	**9.3775**	**2.9000e-004**	**0.0000**	**9.3848**

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					0.2584	0.0000	0.2584	0.0518	0.0000	0.0518	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0467	0.5476	0.2915	6.4000e-004		0.0222	0.0222		0.0204	0.0204	0.0000	56.5065	56.5065	0.0183	0.0000	56.9634
Total	**0.0467**	**0.5476**	**0.2915**	**6.4000e-004**	**0.2584**	**0.0222**	**0.2806**	**0.0518**	**0.0204**	**0.0723**	**0.0000**	**56.5065**	**56.5065**	**0.0183**	**0.0000**	**56.9634**

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	8.0000e-004	6.2000e-004	6.8200e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7778	1.7778	5.0000e-005	0.0000	1.7791
Total	**8.0000e-004**	**6.2000e-004**	**6.8200e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7778**	**1.7778**	**5.0000e-005**	**0.0000**	**1.7791**

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					0.1008	0.0000	0.1008	0.0202	0.0000	0.0202	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0467	0.5476	0.2915	6.4000e-004		0.0222	0.0222		0.0204	0.0204	0.0000	56.5064	56.5064	0.0183	0.0000	56.9633
Total	**0.0467**	**0.5476**	**0.2915**	**6.4000e-004**	**0.1008**	**0.0222**	**0.1230**	**0.0202**	**0.0204**	**0.0407**	**0.0000**	**56.5064**	**56.5064**	**0.0183**	**0.0000**	**56.9633**

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	8.0000e-004	6.2000e-004	6.8200e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7778	1.7778	5.0000e-005	0.0000	1.7791
Total	**8.0000e-004**	**6.2000e-004**	**6.8200e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7778**	**1.7778**	**5.0000e-005**	**0.0000**	**1.7791**

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	0.3862	4.2107	2.1399	4.9400e-003		0.1880	0.1880		0.1756	0.1756	0.0000	428.5924	428.5924	0.1175	0.0000	431.5287
Total	**0.3862**	**4.2107**	**2.1399**	**4.9400e-003**		**0.1880**	**0.1880**		**0.1756**	**0.1756**	**0.0000**	**428.5924**	**428.5924**	**0.1175**	**0.0000**	**431.5287**

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	0.1087	3.4608	0.8573	8.2400e-003	0.2044	0.0170	0.2214	0.0590	0.0162	0.0752	0.0000	797.6220	797.6220	0.0524	0.0000	798.9310
Worker	0.3666	0.2810	3.1098	8.9700e-003	0.9009	6.9600e-003	0.9078	0.2393	6.4100e-003	0.2457	0.0000	810.9726	810.9726	0.0233	0.0000	811.5544
Total	**0.4752**	**3.7419**	**3.9670**	**0.0172**	**1.1053**	**0.0239**	**1.1292**	**0.2982**	**0.0226**	**0.3209**	**0.0000**	**1,608.5946**	**1,608.5946**	**0.0756**	**0.0000**	**1,610.4853**

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	0.3862	4.2107	2.1399	4.9400e-003		0.1880	0.1880		0.1756	0.1756	0.0000	428.5919	428.5919	0.1175	0.0000	431.5282
Total	**0.3862**	**4.2107**	**2.1399**	**4.9400e-003**		**0.1880**	**0.1880**		**0.1756**	**0.1756**	**0.0000**	**428.5919**	**428.5919**	**0.1175**	**0.0000**	**431.5282**

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	0.1087	3.4608	0.8573	8.2400e-003	0.2044	0.0170	0.2214	0.0590	0.0162	0.0752	0.0000	797.6220	797.6220	0.0524	0.0000	798.9310
Worker	0.3666	0.2810	3.1098	8.9700e-003	0.9009	6.9600e-003	0.9078	0.2393	6.4100e-003	0.2457	0.0000	810.9726	810.9726	0.0233	0.0000	811.5544
Total	**0.4752**	**3.7419**	**3.9670**	**0.0172**	**1.1053**	**0.0239**	**1.1292**	**0.2982**	**0.0226**	**0.3209**	**0.0000**	**1,608.5946**	**1,608.5946**	**0.0756**	**0.0000**	**1,610.4853**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0509	0.5275	0.5495	8.5000e-004		0.0282	0.0282		0.0260	0.0260	0.0000	75.1058	75.1058	0.0243	0.0000	75.7131
Paving	4.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0558**	**0.5275**	**0.5495**	**8.5000e-004**		**0.0282**	**0.0282**		**0.0260**	**0.0260**	**0.0000**	**75.1058**	**75.1058**	**0.0243**	**0.0000**	**75.7131**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5100e-003	1.9300e-003	0.0213	6.0000e-005	6.1700e-003	5.0000e-005	6.2200e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.5556	5.5556	1.6000e-004	0.0000	5.5596
Total	**2.5100e-003**	**1.9300e-003**	**0.0213**	**6.0000e-005**	**6.1700e-003**	**5.0000e-005**	**6.2200e-003**	**1.6400e-003**	**4.0000e-005**	**1.6800e-003**	**0.0000**	**5.5556**	**5.5556**	**1.6000e-004**	**0.0000**	**5.5596**

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	0.0509	0.5275	0.5495	8.5000e-004		0.0282	0.0282		0.0260	0.0260	0.0000	75.1057	75.1057	0.0243	0.0000	75.7130
Paving	4.9600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0558**	**0.5275**	**0.5495**	**8.5000e-004**		**0.0282**	**0.0282**		**0.0260**	**0.0260**	**0.0000**	**75.1057**	**75.1057**	**0.0243**	**0.0000**	**75.7130**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5100e-003	1.9300e-003	0.0213	6.0000e-005	6.1700e-003	5.0000e-005	6.2200e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.5556	5.5556	1.6000e-004	0.0000	5.5596
Total	**2.5100e-003**	**1.9300e-003**	**0.0213**	**6.0000e-005**	**6.1700e-003**	**5.0000e-005**	**6.2200e-003**	**1.6400e-003**	**4.0000e-005**	**1.6800e-003**	**0.0000**	**5.5556**	**5.5556**	**1.6000e-004**	**0.0000**	**5.5596**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.6099					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0291	0.2021	0.2198	3.6000e-004		0.0133	0.0133		0.0133	0.0133	0.0000	30.6390	30.6390	2.3700e-003	0.0000	30.6984
Total	**3.6390**	**0.2021**	**0.2198**	**3.6000e-004**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**30.6390**	**30.6390**	**2.3700e-003**	**0.0000**	**30.6984**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0441	0.4874	1.4100e-003	0.1412	1.0900e-003	0.1423	0.0375	1.0100e-003	0.0385	0.0000	127.1126	127.1126	3.6500e-003	0.0000	127.2038
Total	**0.0575**	**0.0441**	**0.4874**	**1.4100e-003**	**0.1412**	**1.0900e-003**	**0.1423**	**0.0375**	**1.0100e-003**	**0.0385**	**0.0000**	**127.1126**	**127.1126**	**3.6500e-003**	**0.0000**	**127.2038**

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	3.6099					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0291	0.2021	0.2198	3.6000e-004		0.0133	0.0133		0.0133	0.0133	0.0000	30.6390	30.6390	2.3700e-003	0.0000	30.6983
Total	**3.6390**	**0.2021**	**0.2198**	**3.6000e-004**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**30.6390**	**30.6390**	**2.3700e-003**	**0.0000**	**30.6983**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0575	0.0441	0.4874	1.4100e-003	0.1412	1.0900e-003	0.1423	0.0375	1.0100e-003	0.0385	0.0000	127.1126	127.1126	3.6500e-003	0.0000	127.2038
Total	**0.0575**	**0.0441**	**0.4874**	**1.4100e-003**	**0.1412**	**1.0900e-003**	**0.1423**	**0.0375**	**1.0100e-003**	**0.0385**	**0.0000**	**127.1126**	**127.1126**	**3.6500e-003**	**0.0000**	**127.2038**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
Manufacturing	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Fast Food Restaurant with Drive	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Manufacturing	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Regional Shopping Center	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	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
Convenience Market With Gas Pumps	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Fast Food Restaurant w/o Drive Thru	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Fast Food Restaurant with Drive Thru	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
General Light Industry	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Manufacturing	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Other Asphalt Surfaces	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Refrigerated Warehouse-No Rail	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Regional Shopping Center	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Unrefrigerated Warehouse-No Rail	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	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
Fast Food Restaurant w/o Drive Thru	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
Fast Food Restaurant with Drive Thru	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
General Light Industry	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
Manufacturing	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 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
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	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
Fast Food Restaurant w/o Drive Thru	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
Fast Food Restaurant with Drive Thru	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
General Light Industry	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
Manufacturing	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 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
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	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
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.3453	1.9000e-004	0.0201	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0388	0.0388	1.0000e-004	0.0000	0.0414
Unmitigated	6.3453	1.9000e-004	0.0201	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0388	0.0388	1.0000e-004	0.0000	0.0414

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	0.7220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8900e-003	1.9000e-004	0.0201	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0388	0.0388	1.0000e-004	0.0000	0.0414
Total	**6.3453**	**1.9000e-004**	**0.0201**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0388**	**0.0388**	**1.0000e-004**	**0.0000**	**0.0414**

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	0.7220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8900e-003	1.9000e-004	0.0201	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0388	0.0388	1.0000e-004	0.0000	0.0414
Total	**6.3453**	**1.9000e-004**	**0.0201**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0388**	**0.0388**	**1.0000e-004**	**0.0000**	**0.0414**

7.0 Water Detail

7.1 Mitigation Measures Water

The Park @ Live Oak (Construction - Unmitigated) - South Coast AQMD Air District, Annual

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

The Park @ Live Oak (Construction - Unmitigated) - South Coast AQMD Air District, Annual

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

The Park @ Live Oak (Industrial Uses Operations - Passenger Cars)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	54.60	1000sqft	2.62	54,600.00	0
Manufacturing	102.00	1000sqft	4.90	102,000.00	0
Refrigerated Warehouse-No Rail	387.50	1000sqft	18.49	387,500.00	0
Unrefrigerated Warehouse-No Rail	907.30	1000sqft	43.62	907,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
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

The Park @ Live Oak (Industrial Uses Operations - Passenger Cars) - South Coast AQMD Air District, Annual

Project Characteristics -

Land Use - Industrial Uses Operations Run Only.

Construction Phase - Industrial Uses Operations Run Only.

Off-road Equipment - Industrial Uses Operations Run Only.

Trips and VMT - Industrial Uses Operations Run Only.

Vehicle Trips - Industrial Uses Operations Run Only.

Operational Off-Road Equipment - Industrial Uses Operations Run Only.

Fleet Mix - Industrial Uses Operational Run Only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	40.00	1.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDA	0.55	1.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00

tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	2.0370e-003	0.00
tblFleetMix	OBUS	2.0370e-003	0.00
tblFleetMix	OBUS	2.0370e-003	0.00

tblFleetMix	OBUS	2.0370e-003	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblLandUse	LotAcreage	1.25	2.62
tblLandUse	LotAcreage	2.34	4.90
tblLandUse	LotAcreage	8.90	18.49
tblLandUse	LotAcreage	20.83	43.62
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00

tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	3.90
tblVehicleTrips	ST_TR	1.49	3.13
tblVehicleTrips	ST_TR	1.68	1.44
tblVehicleTrips	ST_TR	1.68	3.82
tblVehicleTrips	SU_TR	0.68	3.90
tblVehicleTrips	SU_TR	0.62	3.13
tblVehicleTrips	SU_TR	1.68	1.44
tblVehicleTrips	SU_TR	1.68	3.82
tblVehicleTrips	WD_TR	6.97	3.90
tblVehicleTrips	WD_TR	3.82	3.13
tblVehicleTrips	WD_TR	1.68	1.44
tblVehicleTrips	WD_TR	1.68	3.82

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Energy	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	3,965.2453	3,965.2453	0.1590	0.0360	3,979.9388
Mobile	1.0544	1.9671	23.7670	0.0880	10.2641	0.0678	10.3320	2.7247	0.0626	2.7873	0.0000	7,963.4237	7,963.4237	0.1697	0.0000	7,967.6666
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	256.2190
Waste						0.0000	0.0000		0.0000	0.0000	286.4791	0.0000	286.4791	16.9304	0.0000	709.7399
Water						0.0000	0.0000		0.0000	0.0000	106.4819	1,392.4775	1,498.9594	10.9942	0.2701	1,854.3142
Total	**7.1293**	**3.7949**	**24.6635**	**0.0921**	**10.2641**	**0.1364**	**10.4005**	**2.7247**	**0.1268**	**2.8515**	**392.9610**	**13,575.3464**	**13,968.3074**	**28.3356**	**0.3061**	**14,767.9169**

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	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Energy	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	3,965.2453	3,965.2453	0.1590	0.0360	3,979.9388
Mobile	1.0544	1.9671	23.7670	0.0880	10.2641	0.0678	10.3320	2.7247	0.0626	2.7873	0.0000	7,963.4237	7,963.4237	0.1697	0.0000	7,967.6666
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	256.2190
Waste						0.0000	0.0000		0.0000	0.0000	286.4791	0.0000	286.4791	16.9304	0.0000	709.7399
Water						0.0000	0.0000		0.0000	0.0000	106.4819	1,392.4775	1,498.9594	10.9942	0.2701	1,854.3142
Total	**7.1293**	**3.7949**	**24.6635**	**0.0921**	**10.2641**	**0.1364**	**10.4005**	**2.7247**	**0.1268**	**2.8515**	**392.9610**	**13,575.3464**	**13,968.3074**	**28.3356**	**0.3061**	**14,767.9169**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/1/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (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	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Site Preparation - 2019

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0544	1.9671	23.7670	0.0880	10.2641	0.0678	10.3320	2.7247	0.0626	2.7873	0.0000	7,963.4237	7,963.4237	0.1697	0.0000	7,967.6666
Unmitigated	1.0544	1.9671	23.7670	0.0880	10.2641	0.0678	10.3320	2.7247	0.0626	2.7873	0.0000	7,963.4237	7,963.4237	0.1697	0.0000	7,967.6666

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	212.94	212.94	212.94	1,286,669	1,286,669
Manufacturing	319.26	319.26	319.26	1,929,097	1,929,097
Refrigerated Warehouse-No Rail	558.00	558.00	558.00	3,371,659	3,371,659
Unrefrigerated Warehouse-No Rail	3,465.89	3,465.89	3465.89	20,942,270	20,942,270
Total	4,556.09	4,556.09	4,556.09	27,529,694	27,529,694

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
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Refrigerated Warehouse-No Rail	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,750.5661	3,750.5661	0.1548	0.0320	3,763.9838
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,750.5661	3,750.5661	0.1548	0.0320	3,763.9838
NaturalGas Mitigated	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.6792	214.6792	4.1100e-003	3.9400e-003	215.9549
NaturalGas Unmitigated	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.6792	214.6792	4.1100e-003	3.9400e-003	215.9549

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					
General Light Industry	988260	5.3300e-003	0.0484	0.0407	2.9000e-004		3.6800e-003	3.6800e-003		3.6800e-003	3.6800e-003	0.0000	52.7373	52.7373	1.0100e-003	9.7000e-004	53.0507
Manufacturing	1.8462e+006	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5203	98.5203	1.8900e-003	1.8100e-003	99.1057
Refrigerated Warehouse-No Rail	399125	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.2988	21.2988	4.1000e-004	3.9000e-004	21.4254
Unrefrigerated Warehouse-No Rail	789351	4.2600e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.1228	42.1228	8.1000e-004	7.7000e-004	42.3731
Total		**0.0217**	**0.1972**	**0.1656**	**1.1800e-003**		**0.0150**	**0.0150**		**0.0150**	**0.0150**	**0.0000**	**214.6792**	**214.6792**	**4.1200e-003**	**3.9400e-003**	**215.9549**

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					
General Light Industry	988260	5.3300e-003	0.0484	0.0407	2.9000e-004		3.6800e-003	3.6800e-003		3.6800e-003	3.6800e-003	0.0000	52.7373	52.7373	1.0100e-003	9.7000e-004	53.0507
Manufacturing	1.8462e+006	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5203	98.5203	1.8900e-003	1.8100e-003	99.1057
Refrigerated Warehouse-No Rail	399125	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.2988	21.2988	4.1000e-004	3.9000e-004	21.4254
Unrefrigerated Warehouse-No Rail	789351	4.2600e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.1228	42.1228	8.1000e-004	7.7000e-004	42.3731
Total		**0.0217**	**0.1972**	**0.1656**	**1.1800e-003**		**0.0150**	**0.0150**		**0.0150**	**0.0150**	**0.0000**	**214.6792**	**214.6792**	**4.1200e-003**	**3.9400e-003**	**215.9549**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	606060	193.1037	7.9700e-003	1.6500e-003	193.7945
Manufacturing	1.1322e+006	360.7432	0.0149	3.0800e-003	362.0338
Refrigerated Warehouse-No Rail	6.4945e+006	2,069.2868	0.0854	0.0177	2,076.6898
Unrefrigerated Warehouse-No Rail	3.53847e+006	1,127.4324	0.0466	9.6300e-003	1,131.4658
Total		**3,750.5661**	**0.1548**	**0.0320**	**3,763.9838**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	606060	193.1037	7.9700e-003	1.6500e-003	193.7945
Manufacturing	1.1322e+006	360.7432	0.0149	3.0800e-003	362.0338
Refrigerated Warehouse-No Rail	6.4945e+006	2,069.2868	0.0854	0.0177	2,076.6898
Unrefrigerated Warehouse-No Rail	3.53847e+006	1,127.4324	0.0466	9.6300e-003	1,131.4658
Total		**3,750.5661**	**0.1548**	**0.0320**	**3,763.9838**

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	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Unmitigated	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384

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	0.6727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7500e-003	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Total	**5.9191**	**1.7000e-004**	**0.0186**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0360**	**0.0360**	**1.0000e-004**	**0.0000**	**0.0384**

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	0.6727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7500e-003	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Total	**5.9191**	**1.7000e-004**	**0.0186**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0360**	**0.0360**	**1.0000e-004**	**0.0000**	**0.0384**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,498.9594	10.9942	0.2701	1,854.3142
Unmitigated	1,498.9594	10.9942	0.2701	1,854.3142

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.6263 / 0	56.3891	0.4136	0.0102	69.7572
Manufacturing	23.5875 / 0	105.3423	0.7726	0.0190	130.3156
Refrigerated Warehouse-No Rail	89.6094 / 0	400.1976	2.9353	0.0721	495.0715
Unrefrigerated Warehouse-No Rail	209.813 / 0	937.0303	6.8727	0.1689	1,159.1699
Total		**1,498.9594**	**10.9942**	**0.2701**	**1,854.3142**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.6263 / 0	56.3891	0.4136	0.0102	69.7572
Manufacturing	23.5875 / 0	105.3423	0.7726	0.0190	130.3156
Refrigerated Warehouse-No Rail	89.6094 / 0	400.1976	2.9353	0.0721	495.0715
Unrefrigerated Warehouse-No Rail	209.813 / 0	937.0303	6.8727	0.1689	1,159.1699
Total		**1,498.9594**	**10.9942**	**0.2701**	**1,854.3142**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	286.4791	16.9304	0.0000	709.7399
Unmitigated	286.4791	16.9304	0.0000	709.7399

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	67.7	13.7425	0.8122	0.0000	34.0464
Manufacturing	126.48	25.6743	1.5173	0.0000	63.6070
Refrigerated Warehouse-No Rail	364.25	73.9395	4.3697	0.0000	183.1819
Unrefrigerated Warehouse-No Rail	852.86	173.1229	10.2313	0.0000	428.9046
Total		**286.4791**	**16.9304**	**0.0000**	**709.7399**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	67.7	13.7425	0.8122	0.0000	34.0464
Manufacturing	126.48	25.6743	1.5173	0.0000	63.6070
Refrigerated Warehouse-No Rail	364.25	73.9395	4.3697	0.0000	183.1819
Unrefrigerated Warehouse-No Rail	852.86	173.1229	10.2313	0.0000	428.9046
Total		**286.4791**	**16.9304**	**0.0000**	**709.7399**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	256.2190
Total	**0.1341**	**1.6304**	**0.7121**	**2.8900e-003**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**254.1640**	**254.1640**	**0.0822**	**0.0000**	**256.2190**

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

The Park @ Live Oak (Industrial Uses Operations - Trucks)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	54.60	1000sqft	2.62	54,600.00	0
Manufacturing	102.00	1000sqft	4.90	102,000.00	0
Refrigerated Warehouse-No Rail	387.50	1000sqft	18.49	387,500.00	0
Unrefrigerated Warehouse-No Rail	907.30	1000sqft	43.62	907,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
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

The Park @ Live Oak (Industrial Uses Operations - Trucks) - South Coast AQMD Air District, Annual

Project Characteristics -

Land Use - Industrial Uses Operations Run Only.

Construction Phase - Industrial Uses Operations Run Only.

Off-road Equipment - Industrial Uses Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Industrial Uses Operations Run Only.

Operational Off-Road Equipment - Industrial Uses Operations Only.

Fleet Mix - Industrial Uses Operations Run Only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	40.00	1.00
tblFleetMix	HHD	0.03	0.44
tblFleetMix	HHD	0.03	0.60
tblFleetMix	HHD	0.03	0.54
tblFleetMix	HHD	0.03	0.68
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00

tblFleetMix	LHD1	0.02	0.37
tblFleetMix	LHD1	0.02	0.17
tblFleetMix	LHD1	0.02	0.35
tblFleetMix	LHD1	0.02	0.05
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	LHD2	5.8620e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MCY	4.7770e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MH	9.5600e-004	0.00
tblFleetMix	MHD	0.02	0.18
tblFleetMix	MHD	0.02	0.23
tblFleetMix	MHD	0.02	0.11
tblFleetMix	MHD	0.02	0.27
tblFleetMix	OBUS	2.0370e-003	0.00
tblFleetMix	OBUS	2.0370e-003	0.00
tblFleetMix	OBUS	2.0370e-003	0.00

tblFleetMix	OBUS	2.0370e-003	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	SBUS	7.0500e-004	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblFleetMix	UBUS	1.9440e-003	0.00
tblLandUse	LotAcreage	1.25	2.62
tblLandUse	LotAcreage	2.34	4.90
tblLandUse	LotAcreage	8.90	18.49
tblLandUse	LotAcreage	20.83	43.62
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	50.00
tblVehicleTrips	CW_TL	16.60	50.00

tblVehicleTrips	CW_TL	16.60	50.00
tblVehicleTrips	CW_TL	16.60	50.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	1.06
tblVehicleTrips	ST_TR	1.49	0.80
tblVehicleTrips	ST_TR	1.68	0.68
tblVehicleTrips	ST_TR	1.68	0.44
tblVehicleTrips	SU_TR	0.68	1.06
tblVehicleTrips	SU_TR	0.62	0.80
tblVehicleTrips	SU_TR	1.68	0.68
tblVehicleTrips	SU_TR	1.68	0.44
tblVehicleTrips	WD_TR	6.97	1.06

tblVehicleTrips	WD_TR	3.82	0.80
tblVehicleTrips	WD_TR	1.68	0.68
tblVehicleTrips	WD_TR	1.68	0.44

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Energy	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	3,965.2453	3,965.2453	0.1590	0.0360	3,979.9388
Mobile	2.0657	60.7333	16.1858	0.2115	6.3934	0.3732	6.7667	1.8008	0.3570	2.1578	0.0000	20,517.3024	20,517.3024	0.9850	0.0000	20,541.9280
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	256.2190
Waste						0.0000	0.0000		0.0000	0.0000	286.4791	0.0000	286.4791	16.9304	0.0000	709.7399
Water						0.0000	0.0000		0.0000	0.0000	106.4819	1,392.4775	1,498.9594	10.9942	0.2701	1,854.3142
Total	**8.1407**	**62.5610**	**17.0822**	**0.2156**	**6.3934**	**0.4418**	**6.8352**	**1.8008**	**0.4213**	**2.2220**	**392.9610**	**26,129.2252**	**26,522.1862**	**29.1509**	**0.3061**	**27,342.1783**

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	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Energy	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	3,965.2453	3,965.2453	0.1590	0.0360	3,979.9388
Mobile	2.0657	60.7333	16.1858	0.2115	6.3934	0.3732	6.7667	1.8008	0.3570	2.1578	0.0000	20,517.3024	20,517.3024	0.9850	0.0000	20,541.9280
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	256.2190
Waste						0.0000	0.0000		0.0000	0.0000	286.4791	0.0000	286.4791	16.9304	0.0000	709.7399
Water						0.0000	0.0000		0.0000	0.0000	106.4819	1,392.4775	1,498.9594	10.9942	0.2701	1,854.3142
Total	**8.1407**	**62.5610**	**17.0822**	**0.2156**	**6.3934**	**0.4418**	**6.8352**	**1.8008**	**0.4213**	**2.2220**	**392.9610**	**26,129.2252**	**26,522.1862**	**29.1509**	**0.3061**	**27,342.1783**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	6/30/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (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	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Site Preparation - 2019

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0657	60.7333	16.1858	0.2115	6.3934	0.3732	6.7667	1.8008	0.3570	2.1578	0.0000	20,517.3024	20,517.3024	0.9850	0.0000	20,541.9280
Unmitigated	2.0657	60.7333	16.1858	0.2115	6.3934	0.3732	6.7667	1.8008	0.3570	2.1578	0.0000	20,517.3024	20,517.3024	0.9850	0.0000	20,541.9280

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	57.88	57.88	57.88	1,053,343	1,053,343
Manufacturing	81.60	81.60	81.60	1,485,120	1,485,120
Refrigerated Warehouse-No Rail	263.50	263.50	263.50	4,795,700	4,795,700
Unrefrigerated Warehouse-No Rail	399.21	399.21	399.21	7,265,658	7,265,658
Total	802.19	802.19	802.19	14,599,822	14,599,822

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
General Light Industry	50.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Manufacturing	50.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Refrigerated Warehouse-No	50.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Unrefrigerated Warehouse-No	50.00	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.000000	0.000000	0.000000	0.000000	0.374200	0.000000	0.181900	0.443900	0.000000	0.000000	0.000000	0.000000	0.000000
Manufacturing	0.000000	0.000000	0.000000	0.000000	0.169300	0.000000	0.226700	0.604000	0.000000	0.000000	0.000000	0.000000	0.000000
Refrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.346600	0.000000	0.109800	0.543600	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.047200	0.000000	0.268700	0.684100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,750.5661	3,750.5661	0.1548	0.0320	3,763.9838
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,750.5661	3,750.5661	0.1548	0.0320	3,763.9838
NaturalGas Mitigated	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.6792	214.6792	4.1100e-003	3.9400e-003	215.9549
NaturalGas Unmitigated	0.0217	0.1972	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.6792	214.6792	4.1100e-003	3.9400e-003	215.9549

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					
General Light Industry	988260	5.3300e-003	0.0484	0.0407	2.9000e-004		3.6800e-003	3.6800e-003		3.6800e-003	3.6800e-003	0.0000	52.7373	52.7373	1.0100e-003	9.7000e-004	53.0507
Manufacturing	1.8462e+006	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5203	98.5203	1.8900e-003	1.8100e-003	99.1057
Refrigerated Warehouse-No Rail	399125	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.2988	21.2988	4.1000e-004	3.9000e-004	21.4254
Unrefrigerated Warehouse-No Rail	789351	4.2600e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.1228	42.1228	8.1000e-004	7.7000e-004	42.3731
Total		**0.0217**	**0.1972**	**0.1656**	**1.1800e-003**		**0.0150**	**0.0150**		**0.0150**	**0.0150**	**0.0000**	**214.6792**	**214.6792**	**4.1200e-003**	**3.9400e-003**	**215.9549**

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					
General Light Industry	988260	5.3300e-003	0.0484	0.0407	2.9000e-004		3.6800e-003	3.6800e-003		3.6800e-003	3.6800e-003	0.0000	52.7373	52.7373	1.0100e-003	9.7000e-004	53.0507
Manufacturing	1.8462e+006	9.9600e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5203	98.5203	1.8900e-003	1.8100e-003	99.1057
Refrigerated Warehouse-No Rail	399125	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.2988	21.2988	4.1000e-004	3.9000e-004	21.4254
Unrefrigerated Warehouse-No Rail	789351	4.2600e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.1228	42.1228	8.1000e-004	7.7000e-004	42.3731
Total		**0.0217**	**0.1972**	**0.1656**	**1.1800e-003**		**0.0150**	**0.0150**		**0.0150**	**0.0150**	**0.0000**	**214.6792**	**214.6792**	**4.1200e-003**	**3.9400e-003**	**215.9549**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	606060	193.1037	7.9700e-003	1.6500e-003	193.7945
Manufacturing	1.1322e+006	360.7432	0.0149	3.0800e-003	362.0338
Refrigerated Warehouse-No Rail	6.4945e+006	2,069.2868	0.0854	0.0177	2,076.6898
Unrefrigerated Warehouse-No Rail	3.53847e+006	1,127.4324	0.0466	9.6300e-003	1,131.4658
Total		**3,750.5661**	**0.1548**	**0.0320**	**3,763.9838**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	606060	193.1037	7.9700e-003	1.6500e-003	193.7945
Manufacturing	1.1322e+006	360.7432	0.0149	3.0800e-003	362.0338
Refrigerated Warehouse-No Rail	6.4945e+006	2,069.2868	0.0854	0.0177	2,076.6898
Unrefrigerated Warehouse-No Rail	3.53847e+006	1,127.4324	0.0466	9.6300e-003	1,131.4658
Total		**3,750.5661**	**0.1548**	**0.0320**	**3,763.9838**

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	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Unmitigated	5.9191	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384

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	0.6727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7500e-003	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Total	**5.9191**	**1.7000e-004**	**0.0186**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0360**	**0.0360**	**1.0000e-004**	**0.0000**	**0.0384**

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	0.6727					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.2446					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7500e-003	1.7000e-004	0.0186	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0360	0.0360	1.0000e-004	0.0000	0.0384
Total	**5.9191**	**1.7000e-004**	**0.0186**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0360**	**0.0360**	**1.0000e-004**	**0.0000**	**0.0384**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,498.9594	10.9942	0.2701	1,854.3142
Unmitigated	1,498.9594	10.9942	0.2701	1,854.3142

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.6263 / 0	56.3891	0.4136	0.0102	69.7572
Manufacturing	23.5875 / 0	105.3423	0.7726	0.0190	130.3156
Refrigerated Warehouse-No Rail	89.6094 / 0	400.1976	2.9353	0.0721	495.0715
Unrefrigerated Warehouse-No Rail	209.813 / 0	937.0303	6.8727	0.1689	1,159.1699
Total		**1,498.9594**	**10.9942**	**0.2701**	**1,854.3142**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	12.6263 / 0	56.3891	0.4136	0.0102	69.7572
Manufacturing	23.5875 / 0	105.3423	0.7726	0.0190	130.3156
Refrigerated Warehouse-No Rail	89.6094 / 0	400.1976	2.9353	0.0721	495.0715
Unrefrigerated Warehouse-No Rail	209.813 / 0	937.0303	6.8727	0.1689	1,159.1699
Total		**1,498.9594**	**10.9942**	**0.2701**	**1,854.3142**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	286.4791	16.9304	0.0000	709.7399
Unmitigated	286.4791	16.9304	0.0000	709.7399

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	67.7	13.7425	0.8122	0.0000	34.0464
Manufacturing	126.48	25.6743	1.5173	0.0000	63.6070
Refrigerated Warehouse-No Rail	364.25	73.9395	4.3697	0.0000	183.1819
Unrefrigerated Warehouse-No Rail	852.86	173.1229	10.2313	0.0000	428.9046
Total		**286.4791**	**16.9304**	**0.0000**	**709.7399**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	67.7	13.7425	0.8122	0.0000	34.0464
Manufacturing	126.48	25.6743	1.5173	0.0000	63.6070
Refrigerated Warehouse-No Rail	364.25	73.9395	4.3697	0.0000	183.1819
Unrefrigerated Warehouse-No Rail	852.86	173.1229	10.2313	0.0000	428.9046
Total		**286.4791**	**16.9304**	**0.0000**	**709.7399**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	256.2190
Total	**0.1341**	**1.6304**	**0.7121**	**2.8900e-003**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**254.1640**	**254.1640**	**0.0822**	**0.0000**	**256.2190**

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

The Park @ Live Oak (Commercial Uses Operations)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	27.70	1000sqft	1.34	27,700.00	0
Fast Food Restaurant w/o Drive Thru	3.00	1000sqft	0.15	3,000.00	0
Convenience Market With Gas Pumps	8.00	Pump	0.06	1,129.40	0
Regional Shopping Center	69.50	1000sqft	3.35	69,500.00	0
Other Asphalt Surfaces	3.79	Acre	3.79	165,092.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
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

The Park @ Live Oak (Commercial Uses Operations) - South Coast AQMD Air District, Annual

Project Characteristics -

Land Use - Commercial Uses Operations Run Only.

Construction Phase - Commercial Uses Operations Run Only.

Off-road Equipment - Commercial Uses Operations Run Only.

Trips and VMT - Commercial Uses Operations Run Only.

Vehicle Trips - Commercial Uses Operations Only.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	PhaseEndDate	8/9/2019	7/1/2019
tblConstructionPhase	PhaseStartDate	7/27/2019	7/1/2019
tblLandUse	LotAcreage	0.64	1.34
tblLandUse	LotAcreage	0.07	0.15
tblLandUse	LotAcreage	0.03	0.06
tblLandUse	LotAcreage	1.60	3.35
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblVehicleTrips	DV_TP	37.00	5.00
tblVehicleTrips	PB_TP	65.00	56.00
tblVehicleTrips	PB_TP	12.00	89.00
tblVehicleTrips	PB_TP	11.00	34.00
tblVehicleTrips	PR_TP	14.00	23.00
tblVehicleTrips	PR_TP	51.00	6.00
tblVehicleTrips	PR_TP	54.00	31.00
tblVehicleTrips	ST_TR	204.47	198.16
tblVehicleTrips	ST_TR	696.00	820.33
tblVehicleTrips	ST_TR	722.03	385.42

tblVehicleTrips	ST_TR	49.97	63.99
tblVehicleTrips	SU_TR	166.88	198.16
tblVehicleTrips	SU_TR	500.00	820.33
tblVehicleTrips	SU_TR	542.72	384.42
tblVehicleTrips	SU_TR	25.24	63.99
tblVehicleTrips	WD_TR	542.60	198.16
tblVehicleTrips	WD_TR	716.00	820.33
tblVehicleTrips	WD_TR	496.12	385.42
tblVehicleTrips	WD_TR	42.70	63.99

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	0.4262	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7800e-003	2.7800e-003	1.0000e-005	0.0000	2.9700e-003
Energy	0.0388	0.3530	0.2965	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	1,119.7960	1,119.7960	0.0377	0.0133	1,124.7108
Mobile	4.5161	20.9977	38.1832	0.1047	7.3518	0.1101	7.4620	1.9702	0.1033	2.0735	0.0000	9,680.7711	9,680.7711	0.6368	0.0000	9,696.6909
Waste						0.0000	0.0000		0.0000	0.0000	86.5980	0.0000	86.5980	5.1178	0.0000	214.5428
Water						0.0000	0.0000		0.0000	0.0000	4.6161	73.8216	78.4377	0.4772	0.0118	93.8908
Total	**4.9811**	**21.3506**	**38.4812**	**0.1068**	**7.3518**	**0.1370**	**7.4888**	**1.9702**	**0.1301**	**2.1003**	**91.2141**	**10,874.3914**	**10,965.6055**	**6.2695**	**0.0252**	**11,129.8383**

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	0.4262	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7800e-003	2.7800e-003	1.0000e-005	0.0000	2.9700e-003
Energy	0.0388	0.3530	0.2965	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	1,119.7960	1,119.7960	0.0377	0.0133	1,124.7108
Mobile	4.5161	20.9977	38.1832	0.1047	7.3518	0.1101	7.4620	1.9702	0.1033	2.0735	0.0000	9,680.7711	9,680.7711	0.6368	0.0000	9,696.6909
Waste						0.0000	0.0000		0.0000	0.0000	86.5980	0.0000	86.5980	5.1178	0.0000	214.5428
Water						0.0000	0.0000		0.0000	0.0000	4.6161	73.8216	78.4377	0.4772	0.0118	93.8908
Total	**4.9811**	**21.3506**	**38.4812**	**0.1068**	**7.3518**	**0.1370**	**7.4888**	**1.9702**	**0.1301**	**2.1003**	**91.2141**	**10,874.3914**	**10,965.6055**	**6.2695**	**0.0252**	**11,129.8383**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/1/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.79

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

3.2 Site Preparation - 2019

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5161	20.9977	38.1832	0.1047	7.3518	0.1101	7.4620	1.9702	0.1033	2.0735	0.0000	9,680.7711	9,680.7711	0.6368	0.0000	9,696.6909
Unmitigated	4.5161	20.9977	38.1832	0.1047	7.3518	0.1101	7.4620	1.9702	0.1033	2.0735	0.0000	9,680.7711	9,680.7711	0.6368	0.0000	9,696.6909

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	1,585.28	1,585.28	1585.28	1,365,869	1,365,869
Fast Food Restaurant w/o Drive Thru	2,460.99	2,460.99	2460.99	614,747	614,747
Fast Food Restaurant with Drive Thru	10,676.13	10,676.13	10648.43	11,231,266	11,231,266
Other Asphalt Surfaces	0.00	0.00	0.00		
Regional Shopping Center	4,447.03	4,447.03	4447.03	6,136,577	6,136,577
Total	19,169.43	19,169.43	19,141.73	19,348,460	19,348,460

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	23	21	56
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	6	5	89
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	31	35	34

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Fast Food Restaurant w/o Drive Thru	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Fast Food Restaurant with Drive Thru	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Other Asphalt Surfaces	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Regional Shopping Center	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

The Park @ Live Oak (Commercial Uses Operations) - South Coast AQMD Air District, 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	735.5678	735.5678	0.0304	6.2800e-003	738.1993
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	735.5678	735.5678	0.0304	6.2800e-003	738.1993
NaturalGas Mitigated	0.0388	0.3530	0.2965	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	384.2282	384.2282	7.3600e-003	7.0400e-003	386.5115
NaturalGas Unmitigated	0.0388	0.3530	0.2965	2.1200e-003		0.0268	0.0268		0.0268	0.0268	0.0000	384.2282	384.2282	7.3600e-003	7.0400e-003	386.5115

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	1852.22	1.0000e-005	9.0000e-005	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0988	0.0988	0.0000	0.0000	0.0994
Fast Food Restaurant w/o Drive Thru	692280	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	36.9427	36.9427	7.1000e-004	6.8000e-004	37.1622
Fast Food Restaurant with Drive Thru	6.39205e+006	0.0345	0.3133	0.2632	1.8800e-003		0.0238	0.0238		0.0238	0.0238	0.0000	341.1042	341.1042	6.5400e-003	6.2500e-003	343.1313
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
Regional Shopping Center	113980	6.1000e-004	5.5900e-003	4.6900e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0824	6.0824	1.2000e-004	1.1000e-004	6.1186
Total		**0.0388**	**0.3530**	**0.2965**	**2.1100e-003**		**0.0268**	**0.0268**		**0.0268**	**0.0268**	**0.0000**	**384.2282**	**384.2282**	**7.3700e-003**	**7.0400e-003**	**386.5115**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	1852.22	1.0000e-005	9.0000e-005	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0988	0.0988	0.0000	0.0000	0.0994
Fast Food Restaurant w/o Drive Thru	692280	3.7300e-003	0.0339	0.0285	2.0000e-004		2.5800e-003	2.5800e-003		2.5800e-003	2.5800e-003	0.0000	36.9427	36.9427	7.1000e-004	6.8000e-004	37.1622
Fast Food Restaurant with Drive Thru	6.39205e+006	0.0345	0.3133	0.2632	1.8800e-003		0.0238	0.0238		0.0238	0.0238	0.0000	341.1042	341.1042	6.5400e-003	6.2500e-003	343.1313
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
Regional Shopping Center	113980	6.1000e-004	5.5900e-003	4.6900e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0824	6.0824	1.2000e-004	1.1000e-004	6.1186
Total		**0.0388**	**0.3530**	**0.2965**	**2.1100e-003**		**0.0268**	**0.0268**		**0.0268**	**0.0268**	**0.0000**	**384.2282**	**384.2282**	**7.3700e-003**	**7.0400e-003**	**386.5115**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	15246.9	4.8580	2.0000e-004	4.0000e-005	4.8754
Fast Food Restaurant w/o Drive Thru	132420	42.1919	1.7400e-003	3.6000e-004	42.3428
Fast Food Restaurant with Drive Thru	1.22268e+006	389.5714	0.0161	3.3300e-003	390.9651
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	938250	298.9466	0.0123	2.5500e-003	300.0160
Total		**735.5678**	**0.0304**	**6.2800e-003**	**738.1993**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	15246.9	4.8580	2.0000e-004	4.0000e-005	4.8754
Fast Food Restaurant w/o Drive Thru	132420	42.1919	1.7400e-003	3.6000e-004	42.3428
Fast Food Restaurant with Drive Thru	1.22268e+006	389.5714	0.0161	3.3300e-003	390.9651
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	938250	298.9466	0.0123	2.5500e-003	300.0160
Total		**735.5678**	**0.0304**	**6.2800e-003**	**738.1993**

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	0.4262	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7800e-003	2.7800e-003	1.0000e-005	0.0000	2.9700e-003
Unmitigated	0.4262	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7800e-003	2.7800e-003	1.0000e-005	0.0000	2.9700e-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	0.0493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7800e-003	2.7800e-003	1.0000e-005	0.0000	2.9700e-003
Total	**0.4262**	**1.0000e-005**	**1.4400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.7800e-003**	**2.7800e-003**	**1.0000e-005**	**0.0000**	**2.9700e-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	0.0493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.7800e-003	2.7800e-003	1.0000e-005	0.0000	2.9700e-003
Total	**0.4262**	**1.0000e-005**	**1.4400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.7800e-003**	**2.7800e-003**	**1.0000e-005**	**0.0000**	**2.9700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	78.4377	0.4772	0.0118	93.8908
Unmitigated	78.4377	0.4772	0.0118	93.8908

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.0836574 / 0.0512739	0.5551	2.7500e-003	7.0000e-005	0.6443
Fast Food Restaurant w/o Drive Thru	0.910601 / 0.0581235	4.2725	0.0298	7.3000e-004	5.2374
Fast Food Restaurant with Drive Thru	8.40788 / 0.536673	39.4496	0.2755	6.7800e-003	48.3582
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	5.14804 / 3.15525	34.1605	0.1691	4.2400e-003	39.6509
Total		**78.4377**	**0.4772**	**0.0118**	**93.8908**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.0836574 / 0.0512739	0.5551	2.7500e-003	7.0000e-005	0.6443
Fast Food Restaurant w/o Drive Thru	0.910601 / 0.0581235	4.2725	0.0298	7.3000e-004	5.2374
Fast Food Restaurant with Drive Thru	8.40788 / 0.536673	39.4496	0.2755	6.7800e-003	48.3582
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	5.14804 / 3.15525	34.1605	0.1691	4.2400e-003	39.6509
Total		**78.4377**	**0.4772**	**0.0118**	**93.8908**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	86.5980	5.1178	0.0000	214.5428
Unmitigated	86.5980	5.1178	0.0000	214.5428

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	34.56	7.0154	0.4146	0.0000	17.3803
Fast Food Restaurant with Drive Thru	319.07	64.7683	3.8277	0.0000	160.4608
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	72.98	14.8143	0.8755	0.0000	36.7018
Total		**86.5980**	**5.1178**	**0.0000**	**214.5428**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	34.56	7.0154	0.4146	0.0000	17.3803
Fast Food Restaurant with Drive Thru	319.07	64.7683	3.8277	0.0000	160.4608
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	72.98	14.8143	0.8755	0.0000	36.7018
Total		**86.5980**	**5.1178**	**0.0000**	**214.5428**

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 3.2:

EMFAC 2014 MODEL OUTPUTS

EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Fuel_Consumption	Fuel Consumption	Total Fuel Co	VMT	Total VMT	Miles per Gallon	VehClass
Los Angele	2020	HHDT	Aggregate	Aggregate	GAS	15.08800814	15088.00814	1235975.41	70375.77745	7019969.988	5.68	HHD
Los Angele	2020	HHDT	Aggregate	Aggregate	DSL	1220.887403	1220887.403		6949594.21			
Los Angele	2020	LDA	Aggregate	Aggregate	GAS	4742.632935	4742632.935	4777424.05	126757060.8	131796942.8	27.59	LDA
Los Angele	2020	LDA	Aggregate	Aggregate	DSL	34.79111576	34791.11576		1250360.963			
Los Angele	2020	LDA	Aggregate	Aggregate	ELEC	0	0		3789521.009			
Los Angele	2020	LDT1	Aggregate	Aggregate	GAS	484.8515011	484851.5011	485332.738	10911874.21	10933290.49	22.53	LDT1
Los Angele	2020	LDT1	Aggregate	Aggregate	DSL	0.481237309	481.2373091		12290.63349			
Los Angele	2020	LDT1	Aggregate	Aggregate	ELEC	0	0		9125.642778			
Los Angele	2020	LDT2	Aggregate	Aggregate	GAS	2412.273264	2412273.264	2415541.5	48391682.24	48481218.25	20.07	LDT2
Los Angele	2020	LDT2	Aggregate	Aggregate	DSL	3.268230966	3268.230966		89536.00725			
Los Angele	2020	LHDT1	Aggregate	Aggregate	GAS	193.5740525	193574.0525	285913.417	2109907.265	3997836.095	13.98	LHDT1
Los Angele	2020	LHDT1	Aggregate	Aggregate	DSL	92.33936415	92339.36415		1887928.83			
Los Angele	2020	LHDT2	Aggregate	Aggregate	GAS	53.47677285	53476.77285	102934.387	541634.3786	1465295.43	14.24	LHDT2
Los Angele	2020	LHDT2	Aggregate	Aggregate	DSL	49.45761401	49457.61401		923661.0515			
Los Angele	2020	MCY	Aggregate	Aggregate	GAS	34.93301792	34933.01792	34933.0179	1204430.232	1204430.232	34.48	MCY
Los Angele	2020	MDV	Aggregate	Aggregate	GAS	1937.076023	1937076.023	1962409.09	29002731.11	29541043.5	15.05	MDV
Los Angele	2020	MDV	Aggregate	Aggregate	DSL	25.33306321	25333.06321		538312.391			
Los Angele	2020	MH	Aggregate	Aggregate	GAS	24.37073999	24370.73999	28578.5148	175661.9503	218249.3407	7.64	MH
Los Angele	2020	MH	Aggregate	Aggregate	DSL	4.207774824	4207.774824		42587.39043			
Los Angele	2020	MHDT	Aggregate	Aggregate	GAS	92.87976332	92879.76332	557788.231	642461.7842	4650365.805	8.34	MHDT
Los Angele	2020	MHDT	Aggregate	Aggregate	DSL	464.9084673	464908.4673		4007904.021			
Los Angele	2020	OBUS	Aggregate	Aggregate	GAS	36.87826547	36878.26547	82123.1513	260270.3654	586545.3562	7.14	OBUS
Los Angele	2020	OBUS	Aggregate	Aggregate	DSL	45.24488581	45244.88581		326274.9908			
Los Angele	2020	SBUS	Aggregate	Aggregate	GAS	4.448617756	4448.617756	19973.9993	50885.26097	162955.2658	8.16	SBUS
Los Angele	2020	SBUS	Aggregate	Aggregate	DSL	15.52538149	15525.38149		112070.0048			
Los Angele	2020	UBUS	Aggregate	Aggregate	GAS	32.89390225	32893.90225	118643.44	164382.4281	567542.7622	4.78	UBUS
Los Angele	2020	UBUS	Aggregate	Aggregate	DSL	85.74953785	85749.53785		403160.334			