# **APPENDIX G**

**GREENHOUSE GAS EMISSIONS ASSESSMENT** 

# Greenhouse Gas Emissions Assessment CADO Menifee Industrial Warehouse Project City of Menifee, California

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# **APPENDIX**

Appendix A: Greenhouse Gas Emissions Data

#### **LIST OF ABBREVIATED TERMS**

AB Assembly Bill

CARB California Air Resource Board
CCR California Code of Regulations

CalEEMod California Emissions Estimator Model
CEQA California Environmental Quality Act
CALGreen Code California Green Building Standards Code
CPUC California Public Utilities Commission

CO<sub>2</sub> carbon dioxide

CO₂e carbon dioxide equivalent

CFC Chlorofluorocarbon

CCSP Climate Change Scoping Plan

cy cubic yard

FCAA Federal Clean Air Act
FR Federal Register
GHG greenhouse gas

HCFC Hydrochlorofluorocarbon

HFC Hydrofluorocarbon

LCFS Low Carbon Fuel Standard

CH<sub>4</sub> Methane

MMTCO<sub>2</sub>e million metric tons of carbon dioxide equivalent

MTCO<sub>2</sub>e metric tons of carbon dioxide equivalent

NHTSA National Highway Traffic Safety Administration

NF<sub>3</sub> nitrogen trifluoride

N₂O nitrous oxide PFC Perfluorocarbon

RTP/SCS Regional Transportation Plan/Sustainable Communities Strategy

SB Senate Bill

SCAB South Coast Air Basin

SCAQMD South Coast Air Quality Management District
SCAG Southern California Association of Government

Sf square foot

SF<sub>6</sub> sulfur hexafluoride
TAC toxic air contaminants

U.S. EPA U.S. Environmental Protection Agency

#### 1 INTRODUCTION

This report documents the results of a Greenhouse Gas (GHG) Emissions Assessment completed for the CADO Menifee Industrial Warehouse project (Project). The purpose of this GHG Emissions Assessment is to evaluate the potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment.

#### 1.1 Project Location

The Project site is located approximately 1.5 miles west of Interstate 215 (I-215) and approximately 3.0 miles south of State Route (SR) 74, within the City of Menifee (see Exhibit 1: Regional Vicinity Map). The Project is north of Corsica Lane, south of Kuffel Road, east of Wheat Street, and west of Byers Road, within the City. The Project site is located in the Economic Development Corridor- Northern Gateway (EDC-NG) of the City and is currently bordered by a scattering of existing rural residential homes (1-5 acres) and outbuildings, proposed future industrial sites, and vacant land (refer to Exhibit 2: Site Vicinity Map).

### 1.2 Project Description

The Project applicant proposes the development of approximately 700,037 square feet (SF) of industrial warehouse space (including office space) within one building on a total of 36.8 net acres (refer to Exhibit 3: Conceptual Site Plan). The proposed concrete tilt-up build would include approximately 690,037 SF of warehouse space and 10,000 SF of office space; approximating 700,037 total SF of development. The building would also contain 49 dock doors on the northern portion of the building and 49 dock doors on the southern portion of the building for a total of 98 dock doors. The Project would include 499 automobile parking spaces and 245 truck trailer parking spaces.

#### **Project Circulation**

Regional Project access would be from I-215 via the potential truck route, Ethanac Road.<sup>1</sup> Local access would be provided via Ethanac Road to Wheat Street or Byers Road. Access to the Project site for both automobiles and trucks is proposed off the following:

- One 40-foot access driveway is on the northwest side of the building on Wheat Street.
- One 40-foot access driveway is on the southwest side of the building on Wheat Street.
- One 41.5-foot access driveway is on the northeast side of the building on Byers Road.
- One 40-foot access driveway is on the southeast side of the building on Byers Road.

Emergency vehicle access is provided around the building with a minimum 26-foot-wide fire lane.

#### Landscaping

Landscaped areas for the Project site approximate 162,886 SF, which is 10.7 percent landscaping on the Project site. Landscaping will be provided along all streets in the parkway, on the front setbacks, on all sides of the Project site, adjacent to the building on the south, east, and west sides, and throughout the

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City of Menifee. 2013. Menifee General Plan Exhibit C-7: Potential Truck Routes. https://www.cityofmenifee.us/DocumentCenter/View/1024/C-7-Truck\_Routes\_HD0913?bidId= (accessed April 2022).

parking areas. The stormwater detention basin located off-site to the north of the Project site would be planted with grasses and shrubs tolerant of seasonal water inundation.

#### **Offsite Improvements**

The following street improvements are anticipated for the Industrial Collector Streets:

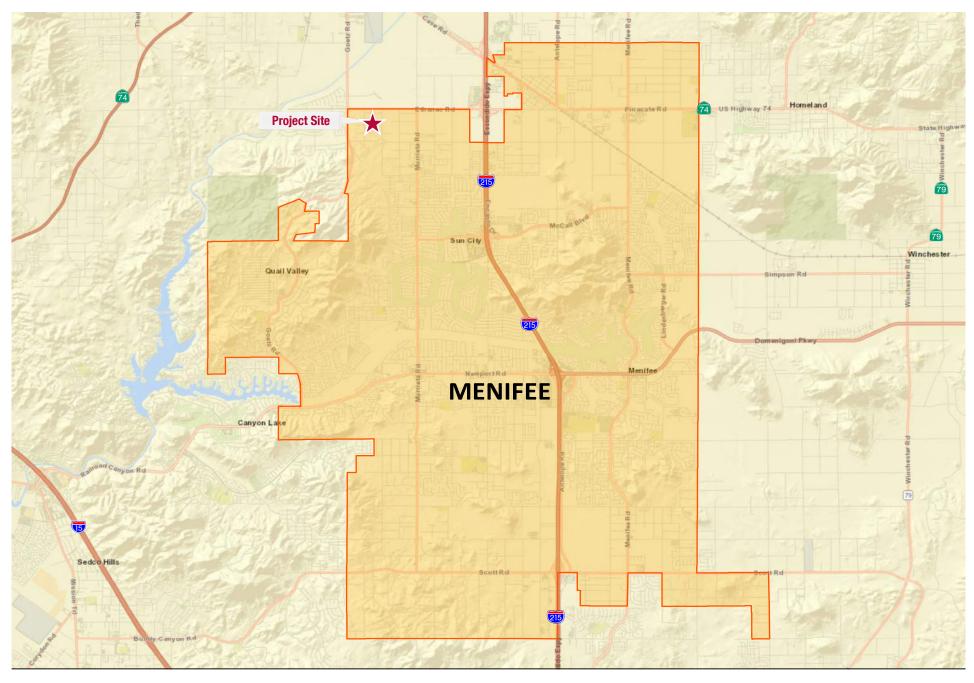
- Byers Road would serve as the north/south roadway for autos and trucks to and from the Project site. Improvements to Byers Road would include widening to a half-width plus 12 feet. The road would be paved and would include curb/gutter, sidewalk, and a landscaped parkway.
- Wheat Street would serve as the north/south roadway mainly for autos/employees to and from the Project site. Improvements to Wheat Street would include widening to a half-width plus 12 feet. The street would be paved and would include curb/gutter, sidewalk, and a landscaped parkway.

The following street improvements are anticipated for the General Local Road:

• Kuffel Road would serve as a west/east roadway. Improvements to Kuffel Road would include widening to a half-width plus 12 feet. The road would be paved and would include curb/gutter, sidewalk, and landscaping adjacent to the stormwater detention basin.

#### **Project Phasing and Construction**

The Project is anticipated to be developed in one phase. Construction for the Project is anticipated to occur over approximately 14 months, beginning in 2024. The Project would require 145,000 cubic yards (CYs) of soil fill (import).

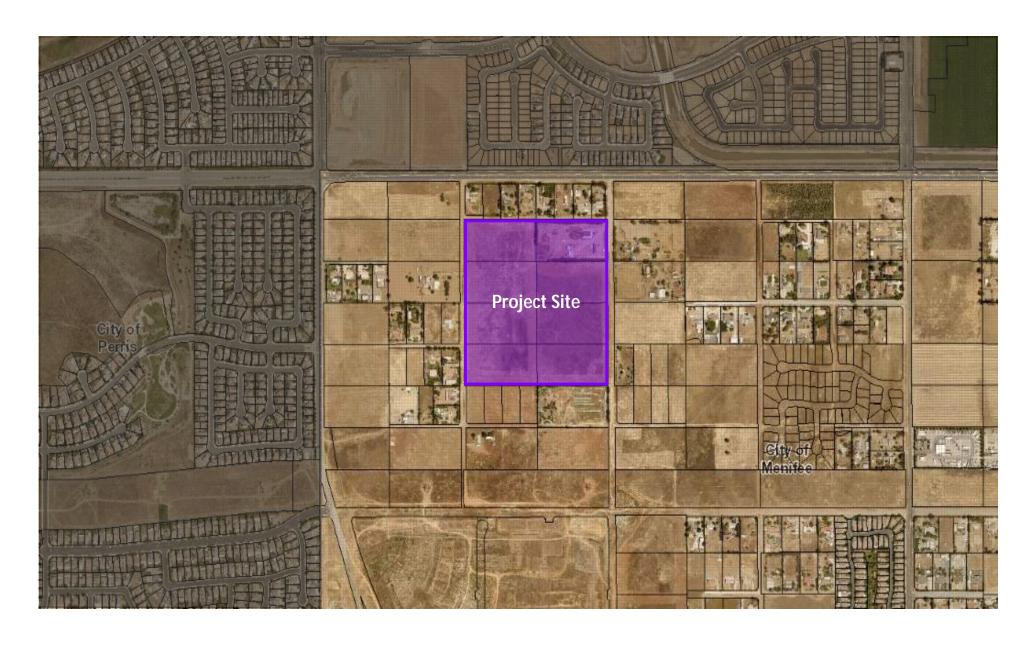


Source: ESRI ArcGIS Pro.

**Exhibit 1**: Regional Vicinity Map City of Menifee CADO Project





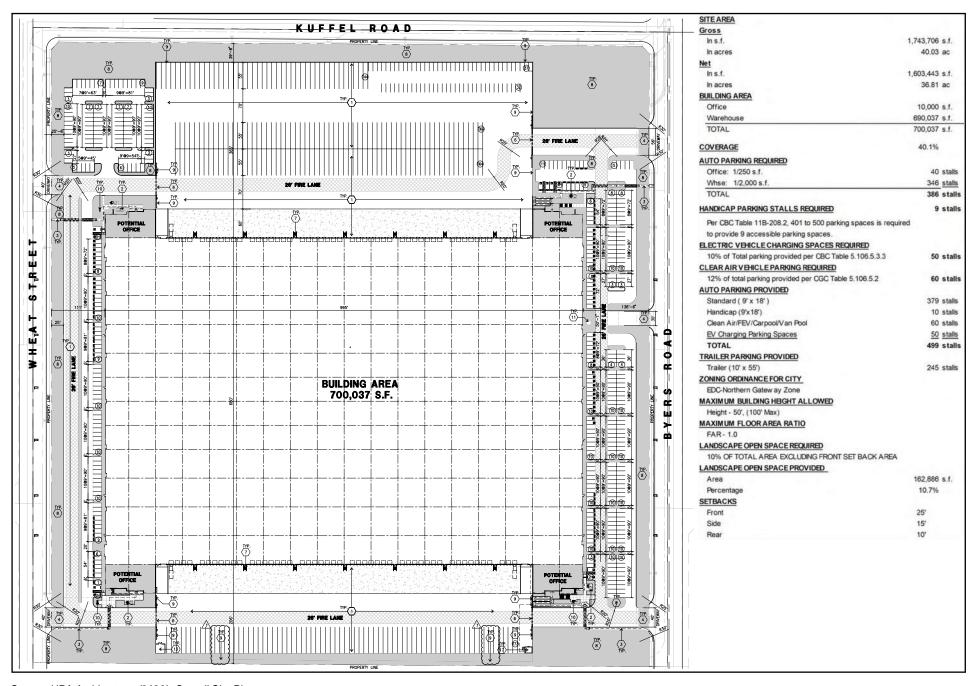


Source: ESRI ArcGIS Pro.

**Exhibit 2**: Site Vicinity Map City of Menifee *CADO Project* 







Source: HPA Architecture. (2023). Overall Site Plan

**Exhibit 3**: Conceptual Site Plan City of Menifee CADO Menifee Industrial Warehouse Project





#### 2 ENVIRONMENTAL SETTING

#### 2.1 Greenhouse Gases and Climate Change

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), and nitrous oxide ( $N_2O$ ). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride ( $SF_6$ ), and nitrogen trifluoride ( $SF_6$ ); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO<sub>2</sub> is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO<sub>2</sub> emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO<sub>2</sub> emissions remains stored in the atmosphere<sup>2</sup>. Table 1: Description of Greenhouse Gases describes the primary GHGs attributed to global climate change, including their physical properties.

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Intergovernmental Panel on Climate Change, Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013. http://www.climatechange2013.org/images/report/WG1AR5\_ALL\_FINAL.pdf.

Table 1: Description of Greenhouse Gases					
Greenhouse Gas	Description				
Carbon Dioxide (CO <sub>2</sub> )	CO <sub>2</sub> is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO <sub>2</sub> emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO <sub>2</sub> is variable because it is readily exchanged in the atmosphere. CO <sub>2</sub> is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.				
Nitrous Oxide (N₂O)	$N_2O$ is largely attributable to agricultural practices and soil management. Primary human-related sources of $N_2O$ include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. $N_2O$ is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of $N_2O$ is approximately 120 years. The Global Warming Potential of $N_2O$ is 298.				
Methane (CH <sub>4</sub> )	CH <sub>4</sub> , a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH <sub>4</sub> include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH <sub>4</sub> is about 12 years and the Global Warming Potential is 25.				
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.				
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.				
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.				
Sulfur Hexafluoride (SF <sub>6</sub> )	$SF_6$ is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of $SF_6$ is 23,900.				
Hydrochlorofluoro- carbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.				
Nitrogen Trifluoride (NF <sub>3</sub> )	NF <sub>3</sub> was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.				

Source: Compiled from U.S. EPA, *Overview of Greenhouse Gases*, (https://www.epa.gov/ghgemissions/overview-greenhouse-gases), accessed 2-5-2020; U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

#### 3 REGULATORY SETTING

#### 3.1 Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

#### **Energy Independence and Security Act of 2007**

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

#### **U.S. Environmental Protection Agency Endangerment Finding**

The U.S. Environmental Protection Agency's (U.S. EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

#### **Federal Vehicle Standards**

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the U.S. EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO<sub>2</sub> in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks. It should be noted that the U.S. EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for  $CO_2$  emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.<sup>3</sup>

On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.)<sup>4</sup> The SAFE Rule (Part One) revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO<sub>2</sub> emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026. The current U.S. EPA administration has repealed SAFE Rule Part One, effective January 28, 2022 and is reconsidering Part Two.

In December 2021, the U.S. EPA finalized federal GHG emissions standards for passenger cars and light trucks for Model Years 2023 through 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a

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<sup>&</sup>lt;sup>3</sup> U.S. EPA and NHTSA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2,* 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: October 2022.

<sup>&</sup>lt;sup>4</sup> U.S. EPA and NHTSA, Federal Register, Vol. 84, No. 188, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program,* September 27, 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. Accessed: October 2022.

rigorous assessment of current and future technologies. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050.5

#### 3.2 State of California

#### **California Air Resources Board**

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO<sub>2</sub> equivalents (CO<sub>2</sub>e) in the world and produced 440 million gross metric tons of CO<sub>2</sub>e in 2015. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation related to GHG emissions reduction.

#### Assembly Bill 32 (California Global Warming Solutions Act of 2006)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

#### **California Air Resource Board Scoping Plan**

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual")<sup>6</sup>. The Scoping Plan evaluates opportunities for sectorspecific reductions, integrates early actions and additional GHG reduction measures by both CARB and the State's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines

U.S. EPA, Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026, 2021. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existingnational-ghg-emissions. Accessed: October 2022.

CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002-2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

the adopted role of a cap-and-trade program<sup>7</sup>. Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.
- The California Sustainable Freight Action Plan was developed in 2016 and provides a vision for California's transition to a more efficient, more economically competitive, and less polluting freight transport system. This transition of California's freight transport system is essential to supporting the State's economic development in coming decades while reducing pollution.
- CARB's Mobile Source Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The mobile Source Strategy includes increasing zero emissions (ZE) buses and trucks.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO<sub>2</sub>e (MMTCO<sub>2</sub>e) to 545 MMTCO<sub>2</sub>e. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

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The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. By 2016, California had reduced GHG emissions below 1990 levels, achieving AB 32's 2020 goal four years ahead of schedule.

In 2016, the Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017 CARB adopted a second update to the Scoping Plan.<sup>8</sup> The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other Federal actions.

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects. CARB specifically states that Appendix D does not address other land uses (e.g., industrial). However, CARB plans to explore new approaches for other land use

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California Air Resources Board, California's 2017 Climate Change Scoping Plan, https://www.arb.ca.gov/cc/scopingplan/scoping\_plan\_2017.pdf\_Accessed March2023.

<sup>9</sup> California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D: Local Actions.

<sup>10</sup> Ibid.

types in the future.11

As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

#### Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan.

#### SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

#### AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the U.S. EPA's denial of an implementation waiver. The U.S. EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO<sub>2</sub>e emissions and 75 percent fewer smog-forming emissions.

#### SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO<sub>2</sub> per megawatt-hour.

<sup>11</sup> Ibid.

#### SB 1078 and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. This goal was accelerated with SB 107, which changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SB X1-2, which codified the 33 percent by 2020 goal.

#### SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 45 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

#### AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Capand-Trade spending to various programs including reducing diesel emissions in impacted communities.

#### **SB 150 (Regional Transportation Plans)**

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

#### SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

#### AB 1346 (Air Pollution: Small Off-Road Engines)

Signed into Law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. The bill requires CARB to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

#### **AB 1279 (Carbon Neutrality)**

Signed on September 16, 2022, AB 1279 established the goal to achieve net-zero GHG emissions no later than 2045 and net negative thereafter. The bill establishes a goal toward at least an 85% reduction target for anthropogenic GHG emissions below statewide emissions limit from Section 36550 of the California Health and Safety Code.

#### SB 1020 (100 Percent Clean Electric Grid)

Signed on September 16, 2022, SB 1020 provides additional goals for the path to the 2045 goal of 100 percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

#### SB 905 (Capturing and Removing Carbon Pollution)

Signed on September 16, 2022, SB 905 establishes regulatory framework and policies that involve carbon removal, carbon capture, utilization, and sequestration. It also prohibits the injecting of concentrated carbon dioxide fluid into a Class II injection well for the purpose of enhanced oil recovery.

#### AB 1757 (Nature-Based Solutions)

Signed on September 16, 2022, AB 1757 requires state agencies to develop a range of targets for natural carbon sequestration and nature-based climate solutions that reduce GHG emissions to meet the 2030, 2038, and 2045 goals which would be integrated into a scoping plan addressing natural and working lands.

#### **Executive Orders Related to GHG Emissions**

California's Executive Branch has taken several actions to reduce GHGs through the use of executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

**Executive Order S-3-05.** Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

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The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

**Executive Order S-01-07.** Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009.

**Executive Order S-13-08.** Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

**Executive Order S-14-08.** Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

**Executive Order S-21-09.** Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

**Executive Order B-30-15.** Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of  $CO_2e$  (MMTCO2e). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

**Executive Order B-55-18.** Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

#### **California Regulations and Building Codes**

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

**Title 20 Appliance Efficiency Regulations.** The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

Title 24 California Green Building Standards Code. The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect on January 1, 2023 (2022 CALGreen). The 2022 CALGreen standards continue to improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

CARB Advanced Clean Truck Regulation. CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- Zero-Emission Truck Sales: Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b 3 truck sales, 75 percent of Class 4 8 straight truck sales, and 40 percent of truck tractor sales.
- Company and Fleet Reporting: Large employers including retailers, manufacturers, brokers and
  others would be required to report information about shipments and shuttle services. Fleet
  owners, with 50 or more trucks, would be required to report about their existing fleet operations.
  This information would help identify future strategies to ensure that fleets purchase available
  zero-emission trucks and place them in service where suitable to meet their needs.

#### 3.3 Regional

#### South Coast Air Quality Management District Rule 2305 (Warehouse Indirect Source Rule)

Rule 2305 was adopted by the SCAQMD Governing Board on May 7, 2021 to reduce  $NO_X$  and particulate matter emissions associated with warehouses and mobile sources attracted to warehouses. However, Rule 2305 would also reduce GHG emissions. This rule applies to all existing and proposed warehouses over 100,000 square feet located in the SCAQMD. Rule 2305 requires warehouse operators to track annual vehicle miles traveled associated with truck trips to and from the warehouse. These trip miles are used to calculate the warehouses WAIRE (Warehouse Actions and Investments to Reduce Emissions) Points Compliance Obligation. WAIRE Points are earned based on emission reduction measures and warehouse operators are required to submit an annual WAIRE Report which includes truck trip data and emission reduction measures. Reduction strategies listed in the WAIRE menu include acquire zero emission (ZE) or near zero emission (NZE) trucks; require ZE/NZE truck visits; require ZE yard trucks; install on-site ZE charging/fueling infrastructure; install onsite energy systems; and install filtration systems in residences, schools, and other buildings in the adjacent community. Warehouse operators that do not earn a sufficient number of WAIRE points to satisfy the WAIRE Points Compliance Obligation would be required to pay a mitigation fee. Funds from the mitigation fee will be used to incentivize the purchase of cleaner trucks and charging/fueling infrastructure in communities nearby.

## **South Coast Air Quality Management District Thresholds**

The South Coast Air Quality Management District (SCAQMD) formed a GHG California Environmental Quality Act (CEQA) Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research, CARB, the Attorney General's Office, a

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variety of city and county planning departments in the SCAB, various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. The Working Group has proposed a tiered approach to evaluating GHG emissions for development projects where SCAQMD is not the lead agency, wherein projects are evaluated sequentially through a series of "tiers" to determine whether the project is likely to result in a potentially significant impact due to GHG emissions.

With the tiered approach, a project is compared against the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. The SCAQMD has adopted a threshold of 10,000 metric tons of CO<sub>2</sub>e (MTCO<sub>2</sub>e) per year for industrial projects and a 3,000 MTCO<sub>2</sub>e threshold was proposed for non-industrial projects but has not been adopted. During Working Group Meeting #7 it was explained that this threshold was derived using a 90 percent capture rate of a large sampling of industrial facilities. During Meeting #8, the Working Group defined industrial uses as production, manufacturing, and fabrication activities or storage and distribution (e.g., warehouse, transfer facility, etc.). The Working Group indicated that the 10,000 MTCO<sub>2</sub>e per year threshold applies to both emissions from construction and operational phases plus indirect emissions (electricity, water use, etc.). The SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, SCAQMD initially outlined that a project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. The Working Group folded the Tier 4 second option into the third option. Under the Tier 4 third option, a project would be excluded if it was below an efficiency-based threshold of 4.8 MTCO<sub>2</sub>e per service population per year. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

#### Tier 3 Screening Thresholds

As described above, when the tiered approach is applied to a proposed project, and the project is found not to comply with Tier 1 or Tier 2, the project's emissions are compared against a screening threshold, as described above, for Tier 3. The screening threshold formally adopted by SCAQMD is an "interim" screening threshold for stationary source industrial projects where the SCAQMD is the lead agency under CEQA. The threshold was termed "interim" because, at the time, SCAQMD anticipated that CARB would be adopting a statewide significance threshold that would inform and provide guidance to SCAQMD in its adoption of a final threshold. However, no statewide threshold was ever adopted, and the interim threshold remains in effect.

For projects for which SCAQMD is not a lead agency, no screening thresholds have been formally adopted. However, the SCAQMD Working Group has recommended a threshold of 10,000 MTCO<sub>2</sub>e/year for industrial projects and 3,000 MTCO<sub>2</sub>e/year for residential and commercial projects. SCAQMD determined that these thresholds would "capture" 90 percent of GHG emissions from these sectors, "capture"

meaning that 90 percent of total emissions from all new projects would be subject to some type of CEQA analysis (i.e., found potentially significant).<sup>12</sup>

#### **Southern California Association of Governments**

On September 3, 2020, SCAG's Regional Council adopted the 2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 RTP/SCS]) also referred to as the Connect SoCal. The Connect SoCal charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The RTP/SCS is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions.

#### 3.4 Local

#### **City of Menifee General Plan**

The City of Menifee General Plan (Open Space and Conservation Element) has goals to reduce impacts to air quality at the local level by minimizing pollution and particulate matter (General Plan Goal OSC-9). The general Plan goals, measures, and actions applicable to the Project include the following:

- **OSC-9.1** Meet State and federal clean air standards by minimizing particulate matter emissions from construction activities.
- **OSC-9.2** Buffer sensitive land uses, such as residences, schools, care facilities, and recreation areas from major air pollutant emission sources, including freeways, manufacturing, hazardous materials storage, wastewater treatment, and similar uses.
- **OSC-9.3** Comply with regional, state, and federal standards and programs for control of all airborne pollutants and noxious odors, regardless of source.
- **OSC-9.4** Support Riverside County Regional Air Quality Task Force, Southern California Association of Government's Regional Transportation Plan/Sustainable Communities Strategy, and SCAQMD's Air Quality Management Plan to reduce air pollution at the regional level.
- **OSC-9.5** Comply with the mandatory requirements of Title 24 Part 1 of the California Building Standards Code and Title 24 Part 6 Building and Energy Efficiency Standards.

The City's Open Space and Conservation Element also includes goals to have efficient and environmentally appropriate use and management of energy and mineral resources to ensure their availability for future

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SCAQMD, "Staff Report: Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans," December 5, 2008, Attachment E: "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold," October 2008, p. 3-2.

generations (General Plan Goal OSC-4), a reliable and safe water supply that effectively meets current and future user demands (General Plan Goal OSC-7), as well as an environmentally aware community that is responsive to changing climate conditions and actively seeks to reduce local greenhouse gas emissions (General Plan Goal OSC-10). Polices to meet these goals include:

- **OSC-4.1** Apply energy efficiency and conservation practices in land use, transportation demand management, and subdivision and building design.
- **OSC-4.2** Evaluate public and private efforts to develop and operate alternative systems of energy production, including solar, wind, and fuel cell.
- **OSC-7.2** Encourage water conservation as a means of preserving water resources.
- **OSC-7.4** Encourage the use of reclaimed water for the irrigation of parks, golf courses, public landscaped areas, and other feasible applications as service becomes available from the Eastern Municipal Water District.
- **OSC-10.1** Align the City's local GHG reduction targets to be consistent with the statewide GHG reduction target of AB 32.
- **OSC-10.2** Align the City's long-term GHG reduction goal consistent with the statewide GHG reduction goal of Executive Order S-03-05.
- **OSC-10.3** Participate in regional greenhouse gas emission reduction initiatives.
- **OSC-10.4** Consider impacts to climate change as a factor in evaluation of policies, strategies, and projects.

#### City of Menifee Design Guidelines - Appendix A: Industrial Good Neighbor Policies

According to the City's Design Guidelines, the purpose of the Good Neighbor Policies (Policies) is to provide local government and developers with ways to address environmental and neighborhood compatibility issues associated with permitting warehouse, logistics and distribution facilities. The Policies were designed to promote economic vitality and sustainability of businesses, while still protecting the general health, safety, and welfare of the public and sensitive receptors within the City of Menifee. Sensitive receptors include residential neighborhoods, schools, public parks, playgrounds, day care centers, nursing homes, hospitals, and other public places where residents are most likely to spend time.

The intent of the City of Menifee's Good Neighbor Policies, in siting new warehouse, logistics and distribution uses, include:

- 1. Minimize impacts to sensitive uses
- 2. Protect public health, safety, and welfare by regulating the design, location and operation of facilities
- 3. Protect neighborhood character of adjacent communities

The Policies apply to all new warehouse, logistics and distribution facilities ("industrial uses"), excluding pending applications that have been deemed complete as the effective day of this policy, that include any building larger than 100,000 square feet in size or any sized building with more than 10 loading bays (dock high). There are general performance standards, as well as site design, access and layout standards, signage and information standards, and environmental considerations, including air quality and noise and traffic.

#### 4 SIGNIFICANCE CRITERIA AND METHODOLOGY

#### 4.1 CEQA Thresholds and Significance Criteria

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a project normally would have a significant effect on the environment if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Addressing GHG emissions generation impacts requires an agency to determine what constitutes a significant impact. The amendments to the CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine whether a project's GHG emissions will have a "significant" impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" the project's GHG emissions<sup>13</sup>.

#### **GHG Thresholds**

On December 5, 2008, the SCAQMD Governing Board adopted a 10,000 MTCO<sub>2</sub>e industrial threshold for projects where SCAQMD is the lead agency. The SCAQMD GHG CEQA Significance Threshold Working Group defined industrial uses as production, manufacturing, and fabrication activities or storage and distribution (e.g., warehouse, transfer facility, etc.) during Meeting #8. Additionally, the SCAQMD GHG Significance Threshold Stakeholder Working Group has specified that a warehouse is considered to be an industrial project. During the GHG CEQA Significance Threshold Working Group Meeting #15, the SCAQMD noted that it was considering extending the industrial GHG significance threshold for use by all lead agencies. Furthermore, the Working Group indicated that the 10,000 MTCO<sub>2</sub>e per year threshold applies to both emissions from construction and operational phases plus indirect emissions (electricity, water use, etc.). The SCAQMD has not announced when staff is expecting to present GHG thresholds for land use projects where the SCAQMD is not the lead agency to the governing board.

The City of Menifee has not adopted project-specific significance thresholds. The City has opted to use a non-zero threshold approach based on Approach 2 of the CAPCOA CEQA and Climate Change handbook, which is the Tier 3 screening value of 3,000 MTCO<sub>2</sub>e per year that is recommended by SCAQMD staff for residential and commercial projects. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) of the CAPCOA CEQA and Climate Change handbook establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is the 3,000 MTCO<sub>2</sub>e/yr screening threshold.

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<sup>14</sup> California Code of Regulations, Section 15064.4a

South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group* #8, 2009.

In setting the threshold at 3,000 MTCO2e per year, SCAQMD researched a database of projects kept by the Governor's Office of Planning and Research (OPR). That database contained 798 projects, 87 of which were removed because they were very large projects and/or outliers that would skew emissions values too high, leaving 711 as the sample population to use in determining the 90th percentile capture rate. The SCAQMD analysis of the 711 projects within the sample population combined commercial, residential, and mixed-use projects. It should be noted that the sample of projects included warehouses and other light industrial land uses but did not include industrial processes (i.e., oil refineries, heavy manufacturing, electric generating stations, mining operations, etc.). Emissions from each of these projects were calculated by SCAQMD to provide a consistent method of emissions calculations across the sample population and from projects within the sample population. In calculating the emissions, the SCAQMD analysis determined that the 90th percentile ranged between 2,983 to 3,143 MTCO2e per year. The SCAQMD set their significance threshold at the low-end value of the range when rounded to the nearest hundred tons of emissions (i.e., 3,000 MTCO2e per year) to define small projects that are considered less than significant and do not need to provide further analysis.

The City understands that the 3,000 MTCO<sub>2</sub>e per year threshold for residential/commercial uses was proposed by SCAQMD over a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 MTCO<sub>2</sub>e per year threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (2008) document and subsequent Working Group meetings (latest of which occurred in 2010). SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold "uses the Executive Order S-3-05 goal [80 percent below 1990 levels by 2050] as the basis for deriving the screening level" and, thus, remains valid for use in 2023 (SCAQMD, 2008, pp. 3-4). Lastly, this threshold has been used for hundreds, if not thousands of GHG analyses performed for projects located within the SCAQMD jurisdiction. Thus, if Project-related GHG emissions do not exceed the 3,000 MTCO<sub>2</sub>e per year threshold, then Project-related GHG emissions would have a less-than-significant impact.

#### 4.2 Methodology

Global climate change is, by definition, a cumulative impact of GHG emissions. Therefore, there is no project-level analysis. The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities which almost doubled between 1970 and 2010 from approximately 27 gigatonnes (Gt) of CO<sub>2</sub>/year to nearly 49 GtCO<sub>2</sub>/year.<sup>15</sup> As such, the geographic extent of climate change and GHG emissions cumulative impact discussion is worldwide.

#### Construction

The Project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2020.4.0 (CalEEMod). Details of the modeling assumptions and emission factors are provided in <u>Appendix A: Greenhouse Gas Emissions Data</u>. For construction, CalEEMod calculates

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Intergovernmental Panel on Climate Change, Climate Change 2014 Mitigation of Climate Change Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2014.

emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The Project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The Project's construction is anticipated to occur over a duration of approximately 15 months, beginning as early as February 2024.

#### Operations

The Project's operational GHG emissions would be generated by vehicular traffic, off-road equipment, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste. These emissions categories are discussed below.

- Area Sources. Area source emissions occur from hearths, architectural coatings, landscaping
  equipment, and consumer products. The Project involves warehouse uses and would not include
  hearths. Landscaping and consumer products would be limited. Negligible quantities of consumer
  products (i.e., personal care products, home, lawn, and garden products, disinfectants, sanitizers,
  polishes, cosmetics, and floor finishes) would be used. Additionally, the primary emissions from
  architectural coatings are volatile organic compounds, which are relatively insignificant as direct
  GHG emissions.
- Energy Consumption. Energy consumption consists of emissions from Project consumption of
  electricity and natural gas. Primary uses of electricity and natural gas by the Project would be for
  miscellaneous warehouse equipment, space heating and cooling, water heating, ventilation,
  lighting, appliances, and electronics. Electricity usage was calculated outside of CalEEMod based
  on Project specific data provided by the applicant. Natural gas usage is based on default
  consumption rates in CalEEMod. The emissions generated from both electricity and natural gas
  usage were calculated using default emissions factors in CalEEMod.
- Solid Waste. Solid waste releases GHG emissions in the form of methane when these materials
  decompose. Solid waste emissions are calculated based on generation rates and emissions factors
  in CalEEMod.
- Water and Wastewater. Project GHG emissions would be generated from energy consumption associated with water and wastewater conveyance and treatment. No changes were made to the default water usage consumption rates or emissions factors.
- Off-Road Equipment. Operational off-road emissions would be generated by off-road cargo handling equipment used during operational activities. Off-road emissions were calculated with emissions rates derived from CARB's OFFROAD database. For this project it was assumed that the warehouses would include 14 forklifts and 2 off-highway trucks for loading and unloading goods per the SCAQMD High Cube Warehouse Truck Trip Study White Paper.<sup>16</sup> It should be noted that the Project does not include cold storage. Therefore, this analysis models the warehouses as

SCAQMD, High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results, June 2014.

unrefrigerated, and the Project would not include emissions from transport refrigeration units (TRUs).

- Emergency Backup Generators. As the Project warehouses are speculative, it is unknown whether emergency backup generators would be used. Backup generators would only be used in the event of a power failure and would not be part of the Project's normal daily operations. Nonetheless, emissions associated with this equipment were included to be conservative. Emissions from an emergency backup generator for each warehouse building were calculated separately from CalEEMod; refer to Appendix A. However, CalEEMod default emissions rates were used. If backup generators are required, the end user would be required to obtain a permit from the SCAQMD prior to installation. Emergency backup generators must meet SCAQMD's Best Available Control Technology (BACT) requirements and comply with SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines), which would minimize emissions.
- Mobile Sources. Mobile sources are emissions from motor vehicles. The Project generated traffic
  was obtained from the Project's Traffic Study prepared by Kimley-horn and Associates (July 2022).
  Project trip generation from the Traffic Study is based on the following Institute of Transportation
  Engineers (ITE) land use category:
  - ITE Land Use 155b, High-Cube Fulfillment Center Sort (700.037 thousand square feet, 4,508 total daily vehicle trips, which include 135 truck trips).

The Project would generate 4,508 daily trips, which includes 4,373 passenger car trips and 135 truck trips. Passenger car/employee commute trip lengths use CalEEMod default lengths for projects in Riverside County. Truck trip lengths are assumed to be 33.2 miles one way. <sup>17</sup> Warehouse truck mix percentages are based on the SCAQMD Truck Trip Generation Study applied to ITE truck percentages.

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California Air Resources Board, Appendix B: Emissions Estimation Methodology for On-Road Diesel-Fueled Heavy-Duty Drayage Trucks at California Ports and Intermodal Rail Yards, 2007. Available at: https://ww3.arb.ca.gov/msei/onroad/downloads/drayage\_trucks/appbf.pdf

#### 5 POTENTIAL IMPACTS AND MITIGATION

#### 5.1 Greenhouse Gas Emissions

Threshold 5.1 Would the Project generate GHG emissions, either directly or indirectly, that could have a significant impact on the environment?

#### **Short-Term Construction Greenhouse Gas Emissions**

The Project would result in direct emissions of CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub> from construction equipment and the transport of materials and construction workers to and from the Project site. The GHG emissions only occur during temporary construction activities and would cease once construction is complete. The total GHG emissions generated during the construction of the Project are shown in <u>Table 2</u>: <u>Construction-Related Greenhouse Gas Emissions</u>.

Table 2: Construction-Related Greenhouse Gas Emissions				
Category	MTCO <sub>2</sub> e			
Construction Year 1 (2024)	1,656			
Construction Year 2 (2025)	111			
Total Construction Emissions	1,767			
30-Year Amortized Construction Emissions	59			
Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.				

As shown, the Project would result in the generation of approximately 1,767 MTCO<sub>2</sub>e over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period and then added to the operational emissions<sup>18</sup>. The amortized Project construction emissions would be 59 MTCO<sub>2</sub>e per year. Once construction is complete, the generation of these GHG emissions would cease.

#### **Long-Term Operational Greenhouse Gas Emissions**

Operational or long-term emissions occur over the life of the Project. GHG emissions would result from direct emissions such as Project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the Project, the emissions associated with solid waste generated from the Project, and any fugitive refrigerants from air conditioning or refrigerators.

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The amortization period is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, August 26, 2009).

Table 3: Project Greenhouse Gas Emissions					
Emissions Source	MTCO₂e per Year				
Emissions source	Unmitigated	Mitigated			
Area and Indirect Sources					
Construction Amortized Over 30 Years	59	59			
Area Source <sup>1</sup>	0.04	0.02			
Energy – Electricity <sup>2</sup>	65	52			
Energy – Natural Gas	76	76			
Off-road (Forklifts and Yard Trucks) <sup>3</sup>	969	521			
Emergency Backup Generator	20	20			
Waste <sup>4</sup>	331	82			
Water and Wastewater	491	491			
Subtotal	2,011	1,301			
Mobile Sources					
Warehouse Trucks	1,810	1,810			
Warehouse Passenger Cars <sup>5</sup>	3,202	3,161			
Subtotal	5,012	4,971			
TOTAL	7,023	6,272			
Threshold	3,000	3,000			
Exceeds Threshold?	Yes	Yes			

- 1. Mitigation Measure GHG-6 requires electric landscaping equipment, which would reduce area source emissions.
- 2. Mitigation Measure GHG-1 requires the Project to install solar
- 3. Mitigation Measure AQ-4 (refer to the Projects Air Quality Assessment) requires all forklifts to be powered by electricity or other zero emission technology.
- 4. Mitigation Measure GHG-3 requires the Project to divert a minimum of 75 percent of landfill waste.
- 5. Mitigation Measure AQ-3 (refer to the Projects Air Quality Assessment) requires implementation of a TDM program.

Source: CalEEMod version 2020.4.0. Refer to Appendix A for model outputs.

GHG emissions associated with the Project are summarized in <u>Table 3</u>: <u>Project Greenhouse Gas Emissions</u>. As shown in <u>Table 3</u>, the Project's unmitigated emissions would be approximately 7,023 MTCO₂e annually from both construction and operations. Project-related GHG emissions would exceed the 3,000 MTCO₂e per year threshold. The majority of the GHG emissions (71 percent of unmitigated emissions and 79 percent of mitigated emissions) are associated with non-construction related mobile sources. Emissions of motor vehicles are controlled by State and Federal standards, and the Project has no control over these standards.

The project would not include cold storage, which would reduce emissions from transport refrigeration units (TRUs). Additionally, mitigation measures (MM) in the Project Air Quality Assessment would also reduce emissions. **MMs AQ-2** through **AQ-5** would reduce emissions by limiting engine idling, implementation of a transportation demand management (TDM) program, requiring all forklifts to be zero emissions, and posting signage with instructions that reduce emissions. The Project also includes **MMs** 

**GHG-1** through **GHG-7** to further reduce emissions. **MM GHG-1** requires the installation of solar photovoltaic (PV) panels to offset 49 kwdc the Project's energy consumption. **MM GHG-2** prohibits the Project from including cold storage equipment for warehouse purposes. **MM GHG-3** requires the facility operator to provide tenants with information on incentive programs such as the Moyer program and Smartway program to increase transportation efficiency. **MM GHG-4** requires EV ready infrastructure and EV charging stations in employee parking lots. **MM GHG-5** requires the Project to divert 75 percent of waste from landfills and **MM GHG-6** requires landscape equipment to be 100 percent electric. **MM GHG-7** also requires the site plan to designate an area of the site for three future truck charging stations and install electrical conduit.

In addition, the Project would be required to comply with SCAQMD Rule 2305 (warehouse indirect source rule) which would directly reduce emissions or to otherwise facilitate emissions reductions. Alternatively, warehouse operators can choose to pay a mitigation fee. Funds from the mitigation fee will be used to incentivize the purchase of cleaner trucks and charging/fueling infrastructure in communities nearby. Although Rule 2305 focuses on air quality pollutant emissions, the rule would facilitate cleaner vehicles and supporting infrastructure that would also result in GHG benefits.

Warehouse owners and operators are required to earn Warehouse Actions and Investments to Reduce Emissions (WAIRE) Points each year. WAIRE points are a menu-based system earned by emission reduction measures. Warehouse operators are required to submit an annual WAIRE Report which includes truck trip data and emission reduction measures. WAIRE points can be earned by completing actions from a menu that can include acquiring and using natural gas, Near-Zero Emissions and/or Zero-Emissions onroad trucks, zero-emission cargo handling equipment, solar panels or zero-emission charging and fueling infrastructure, or other options.

As shown in <u>Table 3</u>, implementation of **MMs GHG-1** through **GHG-7** would reduce Project emissions. However, despite implementation of mitigation, total mitigated emissions would continue to exceed the threshold. The TDM program required by **MM AQ-3** could reduce GHG emissions from employees commuting to work; however, the TDM program would not reduce truck trips to the site.

Implementation of mitigation measures and standard conditions would reduce Project emissions to 6,272 MTCO<sub>2</sub>e per year. However, the Project's emissions would still exceed the 3,000 MTCO<sub>2</sub>e per year threshold. Additional mitigation to further reduce these emissions is not feasible.

Emissions associated with mobile sources total 4,971 MTCO₂e per year. Additional mitigation to reduce the Project's mobile emissions is not feasible due to the limited ability of the City of Menifee to address emissions resulting from trucks, cars, and/or emissions generated by these trucks outside of the City's limits. As with all land use projects, the Project's mobile and transportation related GHG emissions are a function of two parameters: emissions control technology and vehicle miles traveled (VMT).

CARB is directly responsible for regulating mobile and transportation source emissions in the State. Regarding the first parameter, California addresses emissions control technology through a variety of legislation and regulatory schemes, including the state's Low Carbon Fuel Standard (Executive Order S-01-07) (LCFS), a regulatory program designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. The regulatory standards are expressed in terms of the "carbon intensity" of gasoline and diesel fuel and their substitutes. Different types of fuels are evaluated to determine their "life cycle emissions" which include the emissions associated with producing,

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transporting, and using the fuels. Each fuel is then given a carbon intensity score and compared against a declining carbon intensity benchmark for each year. Providers of transportation fuels must demonstrate that the mix of fuels they supply for use in California meets these declining benchmarks for each annual compliance period. In 2018, CARB approved amendments to the LCFS, which strengthened the carbon intensity benchmarks through 2030 to ensure they are in-line with California's 2030 GHG emission reduction target enacted through SB 32. This ensures that the transportation sector is meeting its obligations to achieve California's GHG reduction targets. The state is also implementing legislation and regulations to address the second parameter affecting transportation related GHG emissions by controlling for VMT. Examples of this include SB 375, which links land use and transportation funding and provides one incentive for regions to achieve reductions in VMT, and SB 743, which discourages VMT increases for passenger car trips above a region-specific benchmark. However, the state has determined that VMT regulations are not applicable to heavy trucks, such as those that will utilize the Project.

As such, the City of Menifee has no regulatory control over emissions control technology and therefore limited ability to control or mitigate emissions associated with truck emissions associated with this Project.

The reliance on carbon offsets to reduce either the Project's mobile or non-mobile emissions is also not feasible, as no local programs are available that would meet CEQA's criteria for a valid mitigation measure. To reduce emissions, purchased offset credits must be genuine, quantifiable, additional, and verifiable. Even offset credits purchased from CARB-approved offset project registries have been determined to not adequately assure that purchased offset credits accurately and reliably represent actual emissions reductions or cannot guarantee that such reductions are additional to any reduction that would occur under business-as-usual operations and reductions required by law. Such offsets have been determined to not comply with CEQA's definition of a valid mitigation measure. See *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5<sup>th</sup> 467.

The City of Menifee, the lead agency for the Project and the entity responsible for enforcing any mitigation measures incorporated into the Project and relied upon to reduce impacts to a less than significant level, has no enforcement authority over offset credits that fund carbon reduction projects outside of the City. Many offset credits "sell" reductions in emissions generated outside of California, which may not be genuine or verifiable. International offsets are even more difficult to verify, guarantee and enforce. Even CARB does not have enforcement authority over such reductions, let alone the City of Menifee. Thus, the purchase of offset credits is not a feasible mitigation measure to reduce the emissions impact of the proposed Project.

Since mitigated future mobile source emissions exceed the 3,000 MTCO<sub>2</sub>e threshold and no additional feasible mitigation beyond MM AQ-2 through MM AQ-5 (refer to the Project's Air Quality Assessment) and MM GHG-1 through MM GHG-7 are available to further reduce emissions, this impact remains significant and unavoidable.

#### **Standard Conditions and Requirements:**

Existing requirements based on local, state, or federal regulations or laws are frequently required independently of CEQA review. Typical requirements include compliance with the provisions of the Building Code, CalGreen Code, local municipal code, SCAQMD Rules, etc. Because Plans, Programs, and Policies (PPP) are neither Project specific nor a result of development of the Project, they are not considered to be project design features or Mitigation Measures.

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- PP-1 Prior to the issuance of grading permits, the City Engineer shall confirm that the Grading Plan, Building Plans and Specifications require all construction contractors to comply with South Coast Air Quality Management District's (SCAQMD's) Rules 402 and 403 to minimize construction emissions of dust and particulates. The measures include, but are not limited to, the following:
  - Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  - All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
  - All material transported off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  - The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  - Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
- PPP-2 Pursuant to SCAQMD Rule 1113, the Project applicant shall require by contract specifications that the interior and exterior architectural coatings (paint and primer including parking lot paint) products used would have a volatile organic compound rating of 50 grams per liter or less.
- **PPP-3** Require diesel powered construction equipment to turn off when not in use per Title 13 of the California Code of Regulations, Section 2449.
- PPP-4 Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and sensors for landscaping according to the City's Landscape Water Use Efficiency requirements (Chapter 15.04 of the City's Municipal Code).
- PPP-5 The Project shall be designed in accordance with the applicable Title 24 Energy Efficiency Standards for Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6). These standards are updated, nominally every three years, to incorporate improved energy efficiency technologies and methods. The Building Official, or designee shall ensure compliance prior to the issuance of each building permit. The Title 24 Energy Efficiency Standards (Section 110.10) require buildings to be designed to have 15 percent of the roof area "solar ready" that will structurally accommodate later installation of rooftop solar panels. If future building operators pursue providing additional rooftop solar panels, they will submit plans for solar panels prior to occupancy.
- PPP-6 The Project shall be designed in accordance with the applicable California Green Building Standards (CALGreen) Code (24 CCR, Part 11). The Building Official, or designee shall

ensure compliance prior to the issuance of each building permit. These requirements include, but are not limited to:

- Design buildings to be water efficient. Install water-efficient fixtures in accordance with Section 5.303 (nonresidential) of the California Green Building Standards Code Part 11.
- Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1 (nonresidential) of the California Green Building Standards Code Part 11.
- Provide storage areas for recyclables and green waste and adequate recycling containers located in readily accessible areas in accordance with Section 5.410 (nonresidential) of the California Green Building Standards Code Part 11.
- To facilitate future installation of electric vehicle supply equipment (EVSE), nonresidential construction shall comply with Section 5.106.5.3 (nonresidential electric vehicle charging) of the California Green Building Standards Code Part 11.
- PPP-7 Pursuant to SCAQMD Rule 2305, the Project operator will track annual vehicle miles traveled associated with truck trips to and from the warehouse. These trip miles are used to calculate the warehouses WAIRE Points Compliance Obligation. WAIRE Points are earned based on emission reduction measures listed in the WAIRE menu include acquire zero emission (ZE) or near zero emission (NZE) trucks; require ZE/NZE truck visits; require ZE yard trucks; install on-site ZE charging/fueling infrastructure; install onsite energy systems; and install filtration systems in residences, schools, and other buildings in the adjacent community. Warehouse operators that do not earn a sufficient number of WAIRE points to satisfy the WAIRE Points Compliance Obligation would be required to pay a mitigation fee.
- PPP-8 Trees shall be installed in automobile parking areas to provide 50 percent shade cover of parking areas within fifteen years in accordance with section 9.195.040 of the Menifee Municipal Code (Development Code). Trees shall be planted that are capable of meeting this requirement.

**Mitigation Measures:** Refer to **MM AQ-2** through **MM AQ-5** in the Air Quality Assessment. The following additional mitigation is also required.

MM GHG-1

Prior to issuance of tenant occupancy permits, the Project shall be required to install a minimum 49 kwdc solar photovoltaic (PV) system or offset an equivalent amount of energy demand through the purchase of renewable energy or implementation of alternative renewable measures, subject to approval by the Community Development Director or his/her designee. To allow future operators to earn WAIRE Program points pursuant to SCAQMD's Rule 2305, the exact timing of the PV system installation may be modified at the discretion of the Community Development Director or his/her designee. The final PV generation facility size requires approval by Southern California Edison (SCE). SCE's Rule 21 governs operating and metering requirements for any facility connected to SCE's distribution system. Should SCE limit the off-site export, the proposed Project may

utilize a battery energy storage system (BESS) to lower off-site export while maintaining on-site renewable generation to off-set consumption. The building shall include an electrical system and other infrastructure sufficiently sized to accommodate the PV arrays. The electrical system and infrastructure must be clearly labeled with noticeable and permanent signage.

In addition, to ensure that the Project's electrical room(s) is sufficiently sized to accommodate the potential need for additional electrical panels, prior to building permit issuance, either (1) a secondary electrical room shall be provided in the building, or (2) the primary electrical room shall be sized 25 percent larger than is required to satisfy the service requirements of the building or the electrical gear shall be installed with the initial construction with 25 percent excess demand capacity.

#### MM GHG-2

Prior to the issuance of building permits and prior to issuance of tenant occupancy permits, the City of Menifee Community Development Department shall confirm that the Project does not include cold storage equipment for warehousing purposes. Cold storage was not included in this report and is therefore prohibited.

#### **MM GHG-3** The facility operator shall provide tenants with an information packet that:

- Provides information on incentive programs, such as the Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program), and other similar funding opportunities, by providing applicable literature available from the California Air Resources Board (CARB). The Moyer Program On- Road Heavy-Duty Vehicles Voucher Incentive Program (VIP) provides funding to individuals seeking to purchase new or used vehicles with 2013 or later model year engines to replace an existing vehicle that is to be scrapped.
- Provides information on the United States Environmental Protection Agency's SmartWay program and tenants shall be encouraged to use carriers that are SmartWay carriers.

#### MM GHG-4

Prior to precise grading permit issuance, the Project shall be required to show on the precise grading plans 20 percent of the employee parking stalls on-site as "EV Capable", which includes electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging. In addition, 25 percent of the EV Capable parking stalls shall have electric vehicle supply equipment (EVSE) installed and operational. EVSE includes conductors, electric vehicle connectors, attachment plugs, personal protection system, and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy to the electric vehicle.

#### MM GHG-5

The Project shall divert a minimum of 75-percent of landfill waste during operation. Prior to issuance of certificate of tenant occupancy permits, a recyclables collection and load area shall be constructed in compliance with City of Menifee standards for Recyclable Collection and Loading Areas, and the facility's operator shall be required to provide the City with a copy of the Project's recycling program.

**MM GHG-6** All landscaping equipment used onsite shall be 100 percent electrically powered. The building manager or their designee shall be responsible for enforcing these requirements.

MM GHG-7 Prior to the issuance of precise grading permits, plans shall identify the location of future electric truck charging stations (minimum of three) and where conduit shall be installed to those spaces.

**Level of Significance:** Significant and unavoidable impact. No additional feasible mitigation measures are available that can reduce impacts to less than significant.

#### 5.2 Greenhouse Gas Reduction Plan Compliance

# Threshold 5.2 Would the Project conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions?

The City's GP Open Space and Conservation Element establishes goals to have efficient and environmentally appropriate use and management of energy and mineral resources to ensure their availability for future generations as well as an environmentally aware community that is responsive to changing climate conditions and actively seeks to reduce local greenhouse gas emissions. Policies to meet these goals include:

**OSC-9.5**: Comply with the mandatory requirements of Title 24 Part 11 of the California Building Standards Code (CALGreen) and the Title 24 Part 6 Building Energy Efficiency Standards.

<u>Project Consistency:</u> The Project would be conditioned to implement the applicable elements of the California Energy Code, Title 24, Part 6 Building Energy Efficiency Standards and Part 11 CALGreen Standards. The Project would be consistent with City GP Policy OSC-9.5.

**OSC-10.1:** Align the city's local GHG reduction targets to be consistent with the statewide GHG reduction target of AB 32.

<u>Project Consistency</u>: The Project would exceed the applicable numeric GHG threshold and conflict with the GHG reduction measures associated with AB 32. Thus, the Project would conflict with City GP Policy OSC-10.1.

**OSC-10.2:** Align the city's long-term GHG reduction goal consistent with the statewide GHG reduction goal of Executive Order S-03-05.

<u>Project Consistency</u>: The Project would exceed the applicable numeric GHG threshold despite the implementation of **MM AQ-2** through **MM AQ-5** in the air quality assessment and **MM GHG-1** through **MM GHG-7**, which will reduce GHG emissions to the maximum extent feasible. Therefore, the Project would result in a cumulatively considerable impact with respect to GHG emissions. Thus, the Project would potentially conflict with General Plan Policy OSC-10.2 and impacts would be significant and unavoidable.

**OSC-10.3:** Participate in regional greenhouse gas emission reduction initiatives.

<u>Project Consistency:</u> At the time the NOP for the Project was released (April 2022), there were no additional regional GHG emission reduction activities that applied to the Project. Thus, the Project would not conflict with City GP Policy OSC-10.3.

**OSC-10.4:** Consider impacts to climate change as a factor in evaluation of policies, strategies, and projects.

<u>Project Consistency:</u> The Project has considered impacts to climate change as a factor in the evaluation of the Project. Furthermore, the Project incorporates a number of mitigation measures that would serve to reduce climate change-related impacts. Thus, the Project would not conflict with City GP Policy OSC-10.4.

#### **SCAG Connect SoCal Consistency**

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal. The Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG's Connect SoCal establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 as well as an overall GHG target for the Project region consistent with both the target date of AB 32 and the post-2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15.

The Connect SoCal contains over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone. The Connect SoCal is an important planning document for the region, allowing project sponsors to qualify for federal funding.

SCAG's Connect SoCal accounts for operations and maintenance costs to ensure reliability, longevity, and cost effectiveness. The Connect SoCal is also supported by a combination of transportation and land use strategies that help the region achieve state GHG emissions reduction goals and FCAA requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and utilize resources more efficiently. GHG emissions resulting from development-related mobile sources are the most potent source of emissions, and therefore Project comparison to the Connect SoCal is an appropriate indicator of whether the Project would inhibit the post-2020 GHG reduction goals promulgated by the state. The Project's consistency with the Connect SoCal's goals is analyzed in detail in Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency.

SCAG Goa	Is	Compliance	
GOAL 1:	Encourage regional economic prosperity and global competitiveness.	N/A:	This is not a project-specific policy and is therefore not applicable. However, the Project is located on a vacant site and development of the site would contribute to regional economic prosperity.
GOAL 2:	Improve mobility, accessibility, reliability, and travel safety for people and goods.	Consistent:	Although this Project is not a transportation improvement project, the Project is located near existing transit routes on I-215 and SR-74.
GOAL 3:	Enhance the preservation, security, and resilience of the regional transportation system.	N/A:	This is not a transportation improvement project and is therefore not applicable.
GOAL 4:	Increase person and goods movement and travel choices within the transportation system.	Consistent:	The Project includes a warehouse use that would support goods movement and is consistent.
GOAL 5:	Reduce greenhouse gas emissions and improve air quality.	Consistent:	The Project is located within an urban area in proximity to existing truck routes and freeways. Location of the project within a developed area would reduce trip lengths, which would reduce GHG and air quality emissions.
GOAL 6:	Support healthy and equitable communities	Consistent:	With mitigation, Project emissions would not exceed regional or localized air quality significance thresholds for criteria pollutants. Air quality impacts would be less than significant. Based on the Friant Ranch decision, projects that do not exceed the SCAQMD's LSTs would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and result in no criteria pollutant health impacts.
GOAL 7:	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	N/A:	This is not a project-specific policy and is therefore not applicable.
GOAL 8:	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	N/A:	This is not a project-specific policy and is therefore not applicable.
GOAL 9:	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	N/A:	The Project involves development of a warehouse and does not include housing.
GOAL 10:	Promote conservation of natural and agricultural lands and restoration of habitats.	Consistent:	Although the southern portion of the Project is located on land designated as Farmland of Loca Importance in Exhibit OSC-5, Agricultural Resources of the Menifee General Plan, the Project is located within the Economic Development Corridor (Genera Plan Exhibit LU-2, Land Use Map) and the Project is consistent with the City's Economic Development Corridor land use.

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The goals stated in the RTP/SCS were used to determine consistency with the planning efforts previously stated. As shown in <u>Table 4</u>, the Project would be consistent with the stated goals of the RTP/SCS. Therefore, the Project would not result in any significant impacts or interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets.

#### **California Air Resource Board Scoping Plan Consistency**

As previously noted, the 2022 Scoping Plan sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. The transportation, electricity, and industrial sectors are the largest GHG contributors in the State. The 2022 Scoping Plan plans to achieve the AB 1279 targets primarily through zero-emission transportation (e.g., electrifying cars, buses, trains, and trucks). Additional GHG reductions are achieved through decarbonizing the electricity and industrial sectors.

Statewide strategies to reduce GHG emissions in the latest 2022 Scoping Plan include implementing SB 100, which would achieve 100 percent clean electricity by 2045; achieving 100 percent zero emission vehicle sales in 2035 through Advanced Clean Cars II; and implementing the Advanced Clean Fleets regulation to deploy zero-electric vehicle buses and trucks. Additional transportation policies include the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, and Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation. The 2022 Scoping Plan would continue to implement SB 375. GHGs would be further reduced through the Cap-and-Trade Program carbon pricing and SB 905. SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon dioxide removal projects and technology.

As indicated in <u>Table 3</u>, approximately 80 percent of the Project's mitigated GHG emissions are from mobile sources which would be further reduced by the 2022 Scoping Plan measures described above. It should be noted that the City has no control over vehicle emissions. However, these emissions would decline in the future due to Statewide measures discussed above, as well as cleaner technology and fleet turnover. Several of the State's plans and policies would contribute to a reduction in mobile source emissions from the Project. These include the following:

- CARB's Advanced Clean Truck Regulation: Adopted in June 2020, CARB's Advanced Clean Truck Regulation requires truck manufacturers to transition from diesel trucks and vans to electric zeroemission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8.
- Executive Order N-79-20: Executive Order N-79-20 establishes the goal for all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035 and all medium and heavy-duty vehicles will be zero-emission by 2045. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new ZEVs "towards the target of 100 percent."

- **CARB's Mobile Source Strategy**: CARB's Mobile Source Strategy takes an integrated planning approach to identify the level of transition to cleaner mobile source technologies needed to achieve all of California's targets by increasing the adoption of ZEV buses and trucks.
- CARB's Sustainable Freight Action Plan: The Sustainable Freight Action Plan which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks. This Plan applies to all trucks accessing the Project site and may include existing trucks or new trucks that are part of the statewide goods movement sector.
- CARB's Emissions Reduction Plan for Ports and Goods Movement: CARB's Emissions Reduction
  Plan for Ports and Goods Movement identifies measures to improve goods movement efficiencies
  such as advanced combustion strategies, friction reduction, waste heat recovery, and
  electrification of accessories.

While these measures are not directly applicable to the Project, any commercial activity associated with goods movement would be required to comply with these measures as adopted. As such, the Project would not interfere with their implementation.

As discussed above, numerous PPPs and mitigation measures would reduce the Project's mobile source emissions and would support the State's transition to ZEVs by requiring electric vehicle charging stations and/or infrastructure to support the future installation of truck charging stations (PPP-6, PPP-7, MM GHG-4 and MM GHG-7). The Project would also reduce mobile GHG emissions by reducing single occupant vehicle trips with a TDM (MM AQ-3), requiring truck drivers to turn off engines after three minutes of continuous idling (MM AQ-5), updating the truck fleet with newer, cleaner vehicles (MM GHG-3).

Following compliance with all applicable regulations and mitigation measures, the proposed Project would not conflict with the State's progress towards carbon neutrality under the 2022 Scoping Plan. It is also noted that the Project would not convert any Natural and Working Lands (NWL) and/or decrease the urban forest carbon stock in the State, which are areas of emphasis in the 2022 Scoping Plan.

In conclusion, the Project, due to exceeding the 3,000 MTCO<sub>2</sub>e per year threshold, would potentially conflict with several of the applicable General Plan polices that are discussed above, and therefore, with respect to this particular threshold, the Project would have a significant impact. In addition, the Project's long-term operational GHG emissions would exceed the 3,000 MTCO<sub>2</sub>e per year threshold despite decreasing GHG emissions to the maximum extent feasible with the implementation of **MM AQ-2** through **MM AQ-5** in the Project Air Quality Assessment and **MM GHG-1** through **MM GHG-7**; thus, the Project could impede California's statewide GHG reduction goals for 2030 and 2050. A potentially significant impact would therefore occur as a result of the proposed Project.

Mitigation Measures: Refer to MM AQ-2 and MM AQ-5 in the Air Quality Assessment and MM GHG-1 through MM GHG-7, above.

**Level of Significance:** Significant and unavoidable impact. No additional feasible mitigation measures are available that can reduce impacts to less than significant.

#### 5.3 Cumulative Setting, Impacts, and Mitigation Measures

#### **Cumulative Setting**

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have much longer atmospheric lifetimes of 1 year to several thousand years that allow them to be dispersed around the globe.

#### **Cumulative Impacts**

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. However, as discussed above, the Project-related GHG emissions would exceed the 3,000 MTCO₂e threshold of significance despite implementation of MMs AQ-2 through AQ-5 from Section 4.2, Air Quality and MMs GHG-1 through GHG-7, and standard conditions and requirements, and could therefore impede statewide 2030 and 2050 GHG emission reduction targets. As such, the Project would result in a potentially significant cumulative GHG impact.

Mitigation Measures: Refer to MM AQ-2 and MM AQ-5 in the Air Quality Assessment and MM GHG-1 through MM GHG-7, above.

**Level of Significance:** Significant and unavoidable impact. No additional feasible mitigation measures are available that can reduce impacts to less than significant.

#### 6 REFERENCES

- 1. California Air Pollution Control Officers Association (CAPCOA), CalEEMod User Guide Appendix A: Calculation Details, Section 5.2 Methodology for Converting EMFAC2017 Emission Rates into CalEEMod Vehicle Emission Factors, May 2021.
- 2. California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, August 2010.
- 3. California Air Resources Board, Appendix B: Emissions Estimation Methodology of On-Road Diesel-Fueled Heavy-Duty Drayage Trucks at California Ports and Intermodal Rail Yards. Table II-7. https://ww3.arb.ca.gov/msei/onroad/downloads/drayage\_trucks/appbf.pdf
- 4. California Air Resources Board, California's 2022 Climate Change Scoping Plan, 2022.
- 5. California Air Resources Board, EMFAC2021 Volume III Technical Document, March 21, 2021.
- 6. City of Menifee, City of Menifee General Plan, 2013.
- 7. HPA Architecture, Menifee 700K, October 2023.
- 8. Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, 2007.
- 9. Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2013.
- 10. National Research Council, Advancing the Science of Climate Change, 2010.
- 11. State of California, Code of Regulations Section 15065.5a, 2018.
- 12. Southern California Association of Governments, *Connect SoCal (2020 2045 Regional Transportation Plan/Sustainable Communities Strategy, 2020.*
- 13. South Coast Air Quality Management District, *Draft Guidance Document Interim CEQA Greenhouse Gas (GHG) Significance Threshold,* October 2008.
- 14. South Coast Air Quality Management District, *High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results*, June 2014.
- 15. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #8*, 2009.
- 16. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, 2009.
- 17. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15*, 2010.
- 18. U.S. Energy Information Administration, Commercial Buildings Energy Consumption Survey. Table PBA4. Electricity consumption totals and conditional intensities by building activity subcategories, 2012.
- 19. U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016, 2018.
- 20. U.S. EPA, Methane and Nitrous Oxide Emission from Natural Sources, 2010.
- 21. U.S. EPA, Overview of Greenhouse Gases, 2018.

- 22. U.S. EPA and NHTSA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles Phase 2*, 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: October 2022.
- 23. U.S. EPA and NHTSA, Federal Register, Vol. 84, No. 188, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program*, September 27, 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. Accessed: October 2022.
- 24. U.S. EPA, Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026, 2021. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed: October 2022.

# Appendix A

**Greenhouse Gas Emissions Data** 

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CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **CADO Warehouse Menifee No Mitigation**

**Riverside-South Coast County, Annual** 

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Unrefrigerated Warehouse-No Rail	690.04	1000sqft	15.84	690,037.00	0
Other Asphalt Surfaces	200.32	1000sqft	4.60	200,319.00	0
Parking Lot	717.24	1000sqft	16.47	717,240.00	0
City Park	6.28	Acre	6.28	273,885.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025

Utility Company Southern California Edison

 CO2 Intensity
 390.98
 CH4 Intensity
 0.033
 N20 Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - landscape listed as city park, parking lot includes parking spaces and drive aisles, offsite improvements listed as other asphalt surface

Construction Phase - Applicant's Construction Schedule

Trips and VMT - nearest landfill - lambs canyon - 23 miles

On-road Fugitive Dust - access roads to site will remain unpaved (approx .1 mile) until paving phase

Demolition - structural demo area based on aerial photographs

Grading -

Architectural Coating - Rule 1113 VOC Building Envelope coatings =50

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - trucks =135/690.037= 0.1956416829822169 passenger vehicles = 4,373/10 = 437.3, distribution trip length 33.2 SCAQMD Study Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Fleet Mix - Fleet Mix from Traffic Study Trip Gen

Water Mitigation - CA Building Code

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	55.00	86.00
tblConstructionPhase	NumDays	740.00	132.00
tblConstructionPhase	NumDays	50.00	42.00
tblConstructionPhase	NumDays	75.00	32.00
tblConstructionPhase	NumDays	55.00	43.00
tblConstructionPhase	NumDays	30.00	33.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.60
tblFleetMix	LDA	0.54	0.58
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.0740e-003	0.00
tblFleetMix	LHD2	7.0740e-003	0.17
tblFleetMix	MCY	0.02	0.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix tblFleetMix	MDV MH	0.14 4.9320e-003	0.00
	MH	4 0320 <sub>2</sub> 003	·}
A 1000 A 10	-	4.33206-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.23
tblFleetMix	OBUS	6.1000e-004	0.00
tblFleetMix	SBUS	1.0940e-003	0.00
tblFleetMix	UBUS	3.0400e-004	0.00
tblGrading	MaterialImported	0.00	145,000.00
tblLandUse	LandUseSquareFeet	690,040.00	690,037.00
tblLandUse	LandUseSquareFeet	200,320.00	200,319.00
tblLandUse	LandUseSquareFeet	273,556.80	273,885.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblTripsAndVMT	HaulingTripLength	20.00	23.00
tblVehicleTrips	CC_TTP	48.00	100.00
tblVehicleTrips	CNW_TL	6.90	33.20
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	100.00
tblVehicleTrips	CW_TTP	33.00	0.00

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	437.30
tblVehicleTrips	ST_TR	1.74	0.20
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	437.30
tblVehicleTrips	SU_TR	1.74	0.20
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	437.30
tblVehicleTrips	WD_TR	1.74	0.20

# 2.0 Emissions Summary

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 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					ton	s/yr							MT	/yr		
2024	0.4419	4.0673	4.3174	0.0174	18.2932	0.1216	18.4148	2.1519	0.1135	2.2654	0.0000	1,612.879 8	1,612.879 8	0.1231	0.1360	1,656.495 2
2025	1.8248	0.2475	0.5864	1.2300e- 003	0.0787	0.0116	0.0902	0.0209	0.0108	0.0317	0.0000	110.0032	110.0032	0.0157	1.3800e- 003	110.8070
Maximum	1.8248	4.0673	4.3174	0.0174	18.2932	0.1216	18.4148	2.1519	0.1135	2.2654	0.0000	1,612.879 8	1,612.879 8	0.1231	0.1360	1,656.495 2

#### **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					ton	s/yr							MT	/yr		
2024	0.4419	4.0673	4.3174	0.0174	17.9337	0.1216	18.0553	1.9976	0.1135	2.1112	0.0000	1,612.879 4	1,612.879 4	0.1231	0.1360	1,656.494 8
2025	1.8248	0.2475	0.5864	1.2300e- 003	0.0726	0.0116	0.0841	0.0194	0.0108	0.0302	0.0000	110.0031	110.0031	0.0157	1.3800e- 003	110.8070
Maximum	1.8248	4.0673	4.3174	0.0174	17.9337	0.1216	18.0553	1.9976	0.1135	2.1112	0.0000	1,612.879 4	1,612.879 4	0.1231	0.1360	1,656.494 8

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	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	1.99	0.00	1.98	7.17	0.00	6.78	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2024	4-30-2024	0.8201	0.8201
2	5-1-2024	7-31-2024	2.0277	2.0277
3	8-1-2024	10-31-2024	0.9806	0.9806
4	11-1-2024	1-31-2025	1.2510	1.2510
5	2-1-2025	4-30-2025	1.4687	1.4687
		Highest	2.0277	2.0277

# 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					ton	MT/yr										
Area	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429
Energy	7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.2900e- 003	5.2900e- 003		5.2900e- 003	5.2900e- 003	0.0000	420.5724	420.5724	0.0306	4.9200e- 003	422.8015
Mobile	1.8339	4.6824	17.2326	0.0524	4.8284	0.0598	4.8882	1.2977	0.0566	1.3542	0.0000	4,895.104 8	4,895.104 8	0.2169	0.3754	5,012.404 7
Waste	,,					0.0000	0.0000		0.0000	0.0000	133.6655	0.0000	133.6655	7.8994	0.0000	331.1506
Water	y,				<del></del>	0.0000	0.0000	,	0.0000	0.0000	51.1886	389.4791	440.6677	5.2904	0.1281	611.1105
Total	4.7722	4.7523	17.3118	0.0528	4.8284	0.0652	4.8936	1.2977	0.0619	1.3596	184.8541	5,705.196 7	5,890.050 8	13.4374	0.5085	6,377.510 2

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429	
Energy	7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.2900e- 003	5.2900e- 003		5.2900e- 003	5.2900e- 003	0.0000	420.5724	420.5724	0.0306	4.9200e- 003	422.8015	
Mobile	1.8339	4.6824	17.2326	0.0524	4.8284	0.0598	4.8882	1.2977	0.0566	1.3542	0.0000	4,895.104 8	4,895.104 8	0.2169	0.3754	5,012.404 7	
Waste	1					0.0000	0.0000		0.0000	0.0000	133.6655	0.0000	133.6655	7.8994	0.0000	331.1506	
Water	1					0.0000	0.0000		0.0000	0.0000	40.9509	313.9309	354.8818	4.2326	0.1025	491.2481	
Total	4.7722	4.7523	17.3118	0.0528	4.8284	0.0652	4.8936	1.2977	0.0619	1.3596	174.6164	5,629.648 4	5,804.264 8	12.3795	0.4829	6,257.647 8	

	ROG	NOx	СО	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	5.54	1.32	1.46	7.87	5.03	1.88

# 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2024	3/31/2024	5	42	
2	Site Preparation	Site Preparation	4/1/2024	5/15/2024	5	33	
3	Grading	Grading	5/16/2024	6/30/2024	5	32	

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	1	Building Construction	Building Construction	7/1/2024	12/31/2024	5	132	
[	5	Paving	Paving	1/1/2025	2/28/2025	5	43	
ľ	3	Architectural Coating	Architectural Coating	1/1/2025	4/30/2025	5	86	

Acres of Grading (Site Preparation Phase): 49.5

Acres of Grading (Grading Phase): 96

Acres of Paving: 21.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,050,056; Non-Residential Outdoor: 350,019; Striped Parking Area:

55,054 (Architectural Coating - sqft)

#### **OffRoad Equipment**

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

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00	:	0.38
Architectural Coating	Air Compressors	1	6.00	'	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	36.00	14.70	6.90	23.00	LD_Mix	HDT_Mix	HHDT
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	18,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	793.00	310.00	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	159.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					3.9600e- 003	0.0000	3.9600e- 003	6.0000e- 004	0.0000	6.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0471	0.4384	0.4139	8.2000e- 004		0.0202	0.0202		0.0187	0.0187	0.0000	71.3917	71.3917	0.0200	0.0000	71.8911
Total	0.0471	0.4384	0.4139	8.2000e- 004	3.9600e- 003	0.0202	0.0241	6.0000e- 004	0.0187	0.0193	0.0000	71.3917	71.3917	0.0200	0.0000	71.8911

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	4.0000e- 005	2.1300e- 003	5.3000e- 004	1.0000e- 005	5.9800e- 003	2.0000e- 005	6.0000e- 003	6.6000e- 004	2.0000e- 005	6.8000e- 004	0.0000	1.0767	1.0767	2.0000e- 005	1.7000e- 004	1.1276
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5000e- 004	6.7000e- 004	9.2200e- 003	3.0000e- 005	0.0664	2.0000e- 005	0.0664	7.1900e- 003	1.0000e- 005	7.2000e- 003	0.0000	2.5496	2.5496	6.0000e- 005	6.0000e- 005	2.5704
Total	9.9000e- 004	2.8000e- 003	9.7500e- 003	4.0000e- 005	0.0723	4.0000e- 005	0.0724	7.8500e- 003	3.0000e- 005	7.8800e- 003	0.0000	3.6262	3.6262	8.0000e- 005	2.3000e- 004	3.6981

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

# Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					1.5500e- 003	0.0000	1.5500e- 003	2.3000e- 004	0.0000	2.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0471	0.4384	0.4139	8.2000e- 004		0.0202	0.0202		0.0187	0.0187	0.0000	71.3916	71.3916	0.0200	0.0000	71.8910
Total	0.0471	0.4384	0.4139	8.2000e- 004	1.5500e- 003	0.0202	0.0217	2.3000e- 004	0.0187	0.0190	0.0000	71.3916	71.3916	0.0200	0.0000	71.8910

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
"	4.0000e- 005	2.1300e- 003	5.3000e- 004	1.0000e- 005	5.9600e- 003	2.0000e- 005	5.9800e- 003	6.5000e- 004	2.0000e- 005	6.8000e- 004	0.0000	1.0767	1.0767	2.0000e- 005	1.7000e- 004	1.1276
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
	9.5000e- 004	6.7000e- 004	9.2200e- 003	3.0000e- 005	0.0661	2.0000e- 005	0.0661	7.1200e- 003	1.0000e- 005	7.1400e- 003	0.0000	2.5496	2.5496	6.0000e- 005	6.0000e- 005	2.5704
Total	9.9000e- 004	2.8000e- 003	9.7500e- 003	4.0000e- 005	0.0720	4.0000e- 005	0.0721	7.7700e- 003	3.0000e- 005	7.8200e- 003	0.0000	3.6262	3.6262	8.0000e- 005	2.3000e- 004	3.6981

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2024

#### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.3243	0.0000	0.3243	0.1667	0.0000	0.1667	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0439	0.4484	0.3025	6.3000e- 004		0.0203	0.0203		0.0187	0.0187	0.0000	55.2042	55.2042	0.0179	0.0000	55.6505
Total	0.0439	0.4484	0.3025	6.3000e- 004	0.3243	0.0203	0.3446	0.1667	0.0187	0.1854	0.0000	55.2042	55.2042	0.0179	0.0000	55.6505

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0626	1.0000e- 005	0.0626	6.7800e- 003	1.0000e- 005	6.7900e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235
Total	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0626	1.0000e- 005	0.0626	6.7800e- 003	1.0000e- 005	6.7900e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2024 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					ton	s/yr							MT	/yr		
Fugitive Dust					0.1265	0.0000	0.1265	0.0650	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0439	0.4484	0.3025	6.3000e- 004		0.0203	0.0203		0.0187	0.0187	0.0000	55.2041	55.2041	0.0179	0.0000	55.6504
Total	0.0439	0.4484	0.3025	6.3000e- 004	0.1265	0.0203	0.1468	0.0650	0.0187	0.0837	0.0000	55.2041	55.2041	0.0179	0.0000	55.6504

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 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
	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0623	1.0000e- 005	0.0623	6.7200e- 003	1.0000e- 005	6.7300e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235
Total	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0623	1.0000e- 005	0.0623	6.7200e- 003	1.0000e- 005	6.7300e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024
Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.1564	0.0000	0.1564	0.0599	0.0000	0.0599	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0515	0.5180	0.4436	9.9000e- 004		0.0214	0.0214		0.0197	0.0197	0.0000	87.2312	87.2312	0.0282	0.0000	87.9366
Total	0.0515	0.5180	0.4436	9.9000e- 004	0.1564	0.0214	0.1778	0.0599	0.0197	0.0795	0.0000	87.2312	87.2312	0.0282	0.0000	87.9366

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0191	0.9575	0.2538	4.9000e- 003	2.6179	0.0109	2.6288	0.2884	0.0104	0.2988	0.0000	474.8575	474.8575	7.1900e- 003	0.0748	497.3404
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e- 004	6.8000e- 004	9.3700e- 003	3.0000e- 005	0.0674	2.0000e- 005	0.0674	7.3000e- 003	1.0000e- 005	7.3200e- 003	0.0000	2.5900	2.5900	6.0000e- 005	7.0000e- 005	2.6112
Total	0.0201	0.9582	0.2632	4.9300e- 003	2.6853	0.0109	2.6962	0.2957	0.0104	0.3061	0.0000	477.4476	477.4476	7.2500e- 003	0.0749	499.9516

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/уг		
Fugitive Dust					0.0610	0.0000	0.0610	0.0233	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0515	0.5180	0.4436	9.9000e- 004		0.0214	0.0214		0.0197	0.0197	0.0000	87.2311	87.2311	0.0282	0.0000	87.9364
Total	0.0515	0.5180	0.4436	9.9000e- 004	0.0610	0.0214	0.0824	0.0233	0.0197	0.0430	0.0000	87.2311	87.2311	0.0282	0.0000	87.9364

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0191	0.9575	0.2538	4.9000e- 003	2.6075	0.0109	2.6183	0.2858	0.0104	0.2962	0.0000	474.8575	474.8575	7.1900e- 003	0.0748	497.3404
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e- 004	6.8000e- 004	9.3700e- 003	3.0000e- 005	0.0671	2.0000e- 005	0.0672	7.2400e- 003	1.0000e- 005	7.2500e- 003	0.0000	2.5900	2.5900	6.0000e- 005	7.0000e- 005	2.6112
Total	0.0201	0.9582	0.2632	4.9300e- 003	2.6746	0.0109	2.6855	0.2931	0.0104	0.3035	0.0000	477.4476	477.4476	7.2500e- 003	0.0749	499.9516

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.5 Building Construction - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0971	0.8873	1.0670	1.7800e- 003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0204	153.0204	0.0362	0.0000	153.9250
Total	0.0971	0.8873	1.0670	1.7800e- 003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0204	153.0204	0.0362	0.0000	153.9250

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0218	0.7016	0.2763	3.5200e- 003	3.9639	5.7900e- 003	3.9697	0.4197	5.5400e- 003	0.4252	0.0000	338.9375	338.9375	3.6000e- 003	0.0500	353.9395
Worker	0.1585	0.1120	1.5325	4.6200e- 003	11.0243	2.6100e- 003	11.0269	1.1947	2.4000e- 003	1.1971	0.0000	423.6171	423.6171	9.9000e- 003	0.0108	427.0795
Total	0.1803	0.8135	1.8088	8.1400e- 003	14.9882	8.4000e- 003	14.9966	1.6144	7.9400e- 003	1.6223	0.0000	762.5547	762.5547	0.0135	0.0608	781.0189

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.5 Building Construction - 2024 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0971	0.8873	1.0670	1.7800e- 003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0202	153.0202	0.0362	0.0000	153.9249
Total	0.0971	0.8873	1.0670	1.7800e- 003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0202	153.0202	0.0362	0.0000	153.9249

#### **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					ton	s/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	0.0218	0.7016	0.2763	3.5200e- 003	3.9559	5.7900e- 003	3.9616	0.4177	5.5400e- 003	0.4232	0.0000	338.9375	338.9375	3.6000e- 003	0.0500	353.9395
Worker	0.1585	0.1120	1.5325	4.6200e- 003	10.9799	2.6100e- 003	10.9825	1.1838	2.4000e- 003	1.1862	0.0000	423.6171	423.6171	9.9000e- 003	0.0108	427.0795
Total	0.1803	0.8135	1.8088	8.1400e- 003	14.9357	8.4000e- 003	14.9441	1.6015	7.9400e- 003	1.6094	0.0000	762.5547	762.5547	0.0135	0.0608	781.0189

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025
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					ton	s/yr							MT	/yr		
Off-Road	0.0197	0.1845	0.3134	4.9000e- 004		9.0000e- 003	9.0000e- 003		8.2800e- 003	8.2800e- 003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894
Paving	0.0276	 				0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0473	0.1845	0.3134	4.9000e- 004		9.0000e- 003	9.0000e- 003		8.2800e- 003	8.2800e- 003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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
	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.5400e- 003	2.0000e- 005	3.5600e- 003	9.4000e- 004	1.0000e- 005	9.6000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416
Total	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.5400e- 003	2.0000e- 005	3.5600e- 003	9.4000e- 004	1.0000e- 005	9.6000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0197	0.1845	0.3134	4.9000e- 004		9.0000e- 003	9.0000e- 003		8.2800e- 003	8.2800e- 003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894
Paving	0.0276	 				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0473	0.1845	0.3134	4.9000e- 004		9.0000e- 003	9.0000e- 003		8.2800e- 003	8.2800e- 003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.2700e- 003	2.0000e- 005	3.2800e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416
Total	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.2700e- 003	2.0000e- 005	3.2800e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2025 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	1.7499					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3500e- 003	0.0493	0.0778	1.3000e- 004		2.2100e- 003	2.2100e- 003	1 1 1	2.2100e- 003	2.2100e- 003	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940
Total	1.7573	0.0493	0.0778	1.3000e- 004		2.2100e- 003	2.2100e- 003		2.2100e- 003	2.2100e- 003	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0194	0.0131	0.1864	5.8000e- 004	0.0752	3.2000e- 004	0.0755	0.0200	3.0000e- 004	0.0203	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821
Total	0.0194	0.0131	0.1864	5.8000e- 004	0.0752	3.2000e- 004	0.0755	0.0200	3.0000e- 004	0.0203	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2025 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					ton	s/yr							MT	/yr		
Archit. Coating	1.7499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3500e- 003	0.0493	0.0778	1.3000e- 004		2.2100e- 003	2.2100e- 003		2.2100e- 003	2.2100e- 003	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940
Total	1.7573	0.0493	0.0778	1.3000e- 004		2.2100e- 003	2.2100e- 003		2.2100e- 003	2.2100e- 003	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0194	0.0131	0.1864	5.8000e- 004	0.0693	3.2000e- 004	0.0696	0.0185	3.0000e- 004	0.0188	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821
Total	0.0194	0.0131	0.1864	5.8000e- 004	0.0693	3.2000e- 004	0.0696	0.0185	3.0000e- 004	0.0188	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 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					ton	s/yr							MT	/yr		
Mitigated	1.8339	4.6824	17.2326	0.0524	4.8284	0.0598	4.8882	1.2977	0.0566	1.3542	0.0000	4,895.104 8	4,895.104 8	0.2169	0.3754	5,012.404 7
Unmitigated	1.8339	4.6824	17.2326	0.0524	4.8284	0.0598	4.8882	1.2977	0.0566	1.3542	0.0000	4,895.104 8	4,895.104 8	0.2169	0.3754	5,012.404 7

#### **4.2 Trip Summary Information**

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	4,373.00	4,373.00	4373.00	10,937,065	10,937,065
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	135.00	135.00	135.00	1,631,455	1,631,455
Total	4,508.00	4,508.00	4,508.00	12,568,521	12,568,521

#### **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	0	0	0
General Office Building	16.60	8.40	6.90	0.00	100.00	0.00	77	19	4

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	33.20	0.00	0.00	100.00	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
General Office Building	0.577845	0.056458	0.173793	0.136090	0.025268	0.000000	0.000000	0.000000	0.000610	0.000304	0.023606	0.001094	0.004932
Other Asphalt Surfaces	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.230000	0.600000	0.000000	0.000000	0.000000	0.000000	0.000000

# 5.0 Energy Detail

Historical Energy Use: N

# **5.1 Mitigation Measures Energy**

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	-/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000					
Electricity Unmitigated			       			0.0000	0.0000	,       	0.0000	0.0000	0.0000					
ıturalGas Mitigated	7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.2900e- 003	5.2900e- 003	,       	5.2900e- 003	5.2900e- 003	0.0000	75.8446	75.8446	1.4500e- 003	1.3900e- 003	76.2953
NaturalGas Unmitigated	7.6600e- 003	0.0697	0.0585	4.2000e- 004	 	5.2900e- 003	5.2900e- 003		5.2900e- 003	5.2900e- 003	0.0000	75.8446	75.8446	1.4500e- 003	1.3900e- 003	76.2953

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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						
City Park	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 Office Building	34300	1.8000e- 004	1.6800e- 003	1.4100e- 003	1.0000e- 005	     	1.3000e- 004	1.3000e- 004	       	1.3000e- 004	1.3000e- 004	0.0000	1.8304	1.8304	4.0000e- 005	3.0000e- 005	1.8413
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	     	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.38697e +006	7.4800e- 003	0.0680	0.0571	4.1000e- 004		5.1700e- 003	5.1700e- 003		5.1700e- 003	5.1700e- 003	0.0000	74.0142	74.0142	1.4200e- 003	1.3600e- 003	74.4541
Total		7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.3000e- 003	5.3000e- 003		5.3000e- 003	5.3000e- 003	0.0000	75.8446	75.8446	1.4600e- 003	1.3900e- 003	76.2953

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# **5.2 Energy by Land Use - NaturalGas**

#### **Mitigated**

	NaturalGa s Use	ROG	NOx	СО	SO2	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						
City Park	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 Office Building	34300	1.8000e- 004	1.6800e- 003	1.4100e- 003	1.0000e- 005		1.3000e- 004	1.3000e- 004		1.3000e- 004	1.3000e- 004	0.0000	1.8304	1.8304	4.0000e- 005	3.0000e- 005	1.8413	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	1.38697e +006	7.4800e- 003	0.0680	0.0571	4.1000e- 004		5.1700e- 003	5.1700e- 003		5.1700e- 003	5.1700e- 003	0.0000	74.0142	74.0142	1.4200e- 003	1.3600e- 003	74.4541	
Total		7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.3000e- 003	5.3000e- 003		5.3000e- 003	5.3000e- 003	0.0000	75.8446	75.8446	1.4600e- 003	1.3900e- 003	76.2953	

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity <u>Inmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot					
Unrefrigerated Warehouse-No Rail					
Total					

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity <u>//litigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot					
Unrefrigerated Warehouse-No Rail					
Total					

#### 6.0 Area Detail

#### **6.1 Mitigation Measures Area**

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429
Unmitigated	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429

# 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	0.3372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5915					0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e- 003	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005	       	7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429
Total	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429

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#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 6.2 Area by SubCategory

#### **Mitigated**

	ROG	NOx	СО	SO2	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						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e- 003	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429
Total	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429

#### 7.0 Water Detail

# 7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated	-	4.2326	0.1025	491.2481
Unmitigated		5.2904	0.1281	611.1105

# 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e				
Land Use	Mgal		MT/yr						
City Park	0 / 7.4825	14.7428	1.2400e- 003	1.5000e- 004	14.8189				
General Office Building	1.77734 / 1.08934	6.8145	0.0584	1.4300e- 003	8.7021				
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000				
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000				
Unrefrigerated Warehouse-No Rail	159.572 / 0	419.1105	5.2308	0.1265	587.5895				
Total		440.6677	5.2904	0.1281	611.1105				

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CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
City Park	0 / 7.02607	13.8435	1.1700e- 003	1.4000e- 004	13.9150
General Office Building	1.42187 / 1.02289	5.7499	0.0468	1.1500e- 003	7.2615
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	127.657 / 0	335.2884	4.1846	0.1012	470.0716
Total		354.8818	4.2326	0.1025	491.2481

## 8.0 Waste Detail

#### 8.1 Mitigation Measures Waste

#### CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### Category/Year

	Total CO2	CH4	N2O	CO2e						
		MT/yr								
Willigatou		7.8994	0.0000	331.1506						
Unmitigated		7.8994	0.0000	331.1506						

# 8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	/yr	
City Park	0.54	0.1096	6.4800e- 003	0.0000	0.2716
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	648.64	131.6681	7.7814	0.0000	326.2020
Total		133.6655	7.8994	0.0000	331.1506

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CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 8.2 Waste by Land Use

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
City Park	0.54	0.1096	6.4800e- 003	0.0000	0.2716
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	648.64	131.6681	7.7814	0.0000	326.2020
Total		133.6655	7.8994	0.0000	331.1506

# 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

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CADO Warehouse Menifee No Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **User Defined Equipment**

Equipment Type Number

## 11.0 Vegetation

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CADO Warehouse Menifee With Construction Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **CADO Warehouse Menifee With Construction Mitigation**

**Riverside-South Coast County, Annual** 

#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Unrefrigerated Warehouse-No Rail	690.04	1000sqft	15.84	690,037.00	0
Other Asphalt Surfaces	200.32	1000sqft	4.60	200,319.00	0
Parking Lot	Parking Lot 717.24		16.47	717,240.00	0
City Park	6.28	Acre	6.28	273,885.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025

Utility Company Southern California Edison

 CO2 Intensity
 390.98
 CH4 Intensity
 0.033
 N20 Intensity
 0.004

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - landscape listed as city park, parking lot includes parking spaces and drive aisles, offsite improvements listed as other asphalt surface

Construction Phase - Applicant's Construction Schedule

Trips and VMT - nearest landfill - lambs canyon - 23 miles

On-road Fugitive Dust - access roads to site will remain unpaved (approx .1 mile) until paving phase

Demolition - structural demo area based on aerial photographs

Grading -

Architectural Coating - Rule 1113 VOC Building Envelope coatings =50

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Trips - trucks =135/690.037= 0.1956416829822169 passenger vehicles = 4,373/10 = 437.3, distribution trip length 33.2 SCAQMD Study Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403, mitigation - apply chemical stabilizer or pave roads prior to grading phase

Mobile Commute Mitigation - Mitigation requires TDM Program

Area Mitigation - Mitigation GHG-4

**Energy Mitigation -**

Water Mitigation -

Waste Mitigation - divert 75% of landfill waste MM GHG-3

Fleet Mix - Fleet Mix from Traffic Study Trip Gen

Table Name	Column Name	Default Value	New Value		
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00		
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00		
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9		
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5		
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00		
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00		

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstEquipMitigation	Tier	No Change	Tier 4 Final		
tblConstructionPhase	NumDays	50.00	42.00		
tblConstructionPhase	NumDays	30.00	33.00		
tblConstructionPhase	NumDays	75.00	32.00		
tblConstructionPhase	NumDays	740.00	132.00		
tblConstructionPhase	NumDays	55.00	43.00		
tblConstructionPhase	NumDays	55.00	86.00		
tblFleetMix	HHD	0.02	0.00		
tblFleetMix	HHD	0.02	0.60		
tblFleetMix	LDA	0.54	0.58		
tblFleetMix	LDA	0.54	0.00		
tblFleetMix	LDT1	0.06	0.00		
tblFleetMix	LDT2	0.17	0.00		
tblFleetMix	LHD1	0.03	0.00		
tblFleetMix	LHD2	7.0740e-003	0.00		
tblFleetMix	LHD2	7.0740e-003	0.17		

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	140)/	0.00			
	MCY	0.02	0.00		
tblFleetMix	MDV	0.14	0.00		
tblFleetMix	МН	4.9320e-003	0.00		
tblFleetMix	MHD	0.01	0.00		
tblFleetMix	MHD	0.01	0.23		
tblFleetMix	OBUS	6.1000e-004	0.00		
tblFleetMix	SBUS	1.0940e-003	0.00		
tblFleetMix	UBUS	3.0400e-004	0.00		
tblGrading	MaterialImported	0.00	145,000.00		
tblLandUse	LandUseSquareFeet	690,040.00	690,037.00		
tblLandUse	LandUseSquareFeet	200,320.00	200,319.00		
tblLandUse	LandUseSquareFeet	273,556.80	273,885.00		
tblOnRoadDust	HaulingPercentPave	100.00	99.00		
tblOnRoadDust	HaulingPercentPave	100.00	99.00		
tblOnRoadDust	HaulingPercentPave	100.00	99.00		
tblOnRoadDust	HaulingPercentPave	100.00	99.00		
tblOnRoadDust	VendorPercentPave	100.00	98.00		
tblOnRoadDust	VendorPercentPave	100.00	98.00		
tblOnRoadDust	VendorPercentPave	100.00	98.00		
tblOnRoadDust	VendorPercentPave	100.00	98.00		
tblOnRoadDust	WorkerPercentPave	100.00	99.00		
tblOnRoadDust	WorkerPercentPave	100.00	99.00		
tblOnRoadDust	WorkerPercentPave	100.00	99.00		
tblOnRoadDust	WorkerPercentPave	100.00	99.00		
tblTripsAndVMT	HaulingTripLength	20.00	23.00		
tblVehicleTrips	CC_TTP	48.00	100.00		
tblVehicleTrips	CNW_TL	6.90	33.20		
tblVehicleTrips	CNW_TTP	19.00	0.00		
tblVehicleTrips	CNW_TTP	41.00	100.00		

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

ON A DATE THE T	OW TTP	20.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	2.21	437.30
tblVehicleTrips	ST_TR	1.74	0.20
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	0.70	437.30
tblVehicleTrips	SU_TR	1.74	0.20
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.74	437.30
tblVehicleTrips	WD_TR	1.74	0.20

# 2.0 Emissions Summary

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#### CADO Warehouse Menifee With Construction Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 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	ar tons/yr										МТ	/yr				
2024	0.4419	4.0673	4.3174	0.0174	18.2932	0.1216	18.4148	2.1519	0.1135	2.2654	0.0000	1,612.879 8	1,612.879 8	0.1231	0.1360	1,656.495 2
2025	1.8248	0.2475	0.5864	1.2300e- 003	0.0787	0.0116	0.0902	0.0209	0.0108	0.0317	0.0000	110.0032	110.0032	0.0157	1.3800e- 003	110.8070
Maximum	1.8248	4.0673	4.3174	0.0174	18.2932	0.1216	18.4148	2.1519	0.1135	2.2654	0.0000	1,612.879 8	1,612.879 8	0.1231	0.1360	1,656.495 2

#### **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	Year tons/yr										MT	/yr				
2024	0.2719	2.2712	4.5762	0.0174	3.6998	0.0349	3.7347	1.9976	0.0332	2.0308	0.0000	1,612.879 4	1,612.879 4	0.1231	0.1360	1,656.494 8
2025	1.8051	0.0454	0.6458	1.2300e- 003	0.0726	1.3100e- 003	0.0739	0.0194	1.2900e- 003	0.0207	0.0000	110.0031	110.0031	0.0157	1.3800e- 003	110.8070
Maximum	1.8051	2.2712	4.5762	0.0174	3.6998	0.0349	3.7347	1.9976	0.0332	2.0308	0.0000	1,612.879 4	1,612.879 4	0.1231	0.1360	1,656.494 8

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	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	8.37	46.31	-6.49	0.00	79.47	72.80	79.42	7.17	72.26	10.69	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2024	4-30-2024	0.8201	0.0844
2	5-1-2024	7-31-2024	2.0277	1.4715
3	8-1-2024	10-31-2024	0.9806	0.5747
4	11-1-2024	1-31-2025	1.2510	0.8805
5	2-1-2025	4-30-2025	1.4687	1.3519
		Highest	2.0277	1.4715

## 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					ton	s/yr							MT	/yr		
Area	2.9306	1.9000e- 004	0.0207	0.0000	! !	7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429
Energy	7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.2900e- 003	5.2900e- 003		5.2900e- 003	5.2900e- 003	0.0000	420.5724	420.5724	0.0306	4.9200e- 003	422.8015
Mobile	1.8339	4.6824	17.2326	0.0524	4.8284	0.0598	4.8882	1.2977	0.0566	1.3542	0.0000	4,895.104 8	4,895.104 8	0.2169	0.3754	5,012.404 7
Waste	,,					0.0000	0.0000		0.0000	0.0000	133.6655	0.0000	133.6655	7.8994	0.0000	331.1506
Water	,,	,			<del></del>	0.0000	0.0000	<del></del>   	0.0000	0.0000	51.1886	389.4791	440.6677	5.2904	0.1281	611.1105
Total	4.7722	4.7523	17.3118	0.0528	4.8284	0.0652	4.8936	1.2977	0.0619	1.3596	184.8541	5,705.196 7	5,890.050 8	13.4374	0.5085	6,377.510 2

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#### CADO Warehouse Menifee With Construction Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	2.9295	1.0000e- 004	0.0120	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005	0.0000	0.0217	0.0217	4.0000e- 005	0.0000	0.0228
Energy	6.1500e- 003	0.0559	0.0470	3.4000e- 004		4.2500e- 003	4.2500e- 003		4.2500e- 003	4.2500e- 003	0.0000	396.5758	396.5758	0.0295	4.5500e- 003	398.6694
Mobile	1.8243	4.6658	17.0629	0.0519	4.7734	0.0595	4.8329	1.2830	0.0563	1.3393	0.0000	4,853.913 4	4,853.913 4	0.2154	0.3743	4,970.842 9
Waste	1 1 1 1					0.0000	0.0000		0.0000	0.0000	33.4164	0.0000	33.4164	1.9749	0.0000	82.7877
Water	1 1 1 1				<del></del>	0.0000	0.0000		0.0000	0.0000	40.9509	313.9309	354.8818	4.2326	0.1025	491.2481
Total	4.7600	4.7219	17.1219	0.0523	4.7734	0.0638	4.8372	1.2830	0.0606	1.3436	74.3673	5,564.441 8	5,638.809 1	6.4523	0.4814	5,943.570 9

	ROG	NOx	СО	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	0.26	0.64	1.10	1.00	1.14	2.07	1.15	1.13	2.15	1.18	59.77	2.47	4.27	51.98	5.33	6.80

## 3.0 Construction Detail

#### **Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2024	3/31/2024	5	42	
2	Site Preparation	Site Preparation	4/1/2024	5/15/2024	5	33	
3	Grading	Grading	5/16/2024	6/30/2024	5	32	

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Building Construction	Building Construction	7/1/2024	12/31/2024	5	132	
5	Paving	Paving	1/1/2025	2/28/2025	5	43	
6	Architectural Coating	Architectural Coating	1/1/2025	4/30/2025	5	86	

Acres of Grading (Site Preparation Phase): 49.5

Acres of Grading (Grading Phase): 96

Acres of Paving: 21.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,050,056; Non-Residential Outdoor: 350,019; Striped Parking Area:

55,054 (Architectural Coating - sqft)

#### **OffRoad Equipment**

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

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	2	8.00		0.38
Architectural Coating	Air Compressors	1	6.00	'	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	36.00	14.70	6.90	23.00	LD_Mix	HDT_Mix	HHDT
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	18,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	793.00	310.00	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	159.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

#### **3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

#### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust	1 1 1 1 1				3.9600e- 003	0.0000	3.9600e- 003	6.0000e- 004	0.0000	6.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0471	0.4384	0.4139	8.2000e- 004		0.0202	0.0202		0.0187	0.0187	0.0000	71.3917	71.3917	0.0200	0.0000	71.8911
Total	0.0471	0.4384	0.4139	8.2000e- 004	3.9600e- 003	0.0202	0.0241	6.0000e- 004	0.0187	0.0193	0.0000	71.3917	71.3917	0.0200	0.0000	71.8911

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	4.0000e- 005	2.1300e- 003	5.3000e- 004	1.0000e- 005	5.9800e- 003	2.0000e- 005	6.0000e- 003	6.6000e- 004	2.0000e- 005	6.8000e- 004	0.0000	1.0767	1.0767	2.0000e- 005	1.7000e- 004	1.1276
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5000e- 004	6.7000e- 004	9.2200e- 003	3.0000e- 005	0.0664	2.0000e- 005	0.0664	7.1900e- 003	1.0000e- 005	7.2000e- 003	0.0000	2.5496	2.5496	6.0000e- 005	6.0000e- 005	2.5704
Total	9.9000e- 004	2.8000e- 003	9.7500e- 003	4.0000e- 005	0.0723	4.0000e- 005	0.0724	7.8500e- 003	3.0000e- 005	7.8800e- 003	0.0000	3.6262	3.6262	8.0000e- 005	2.3000e- 004	3.6981

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

# <u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust	ii ii				1.5500e- 003	0.0000	1.5500e- 003	2.3000e- 004	0.0000	2.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7100e- 003	0.0421	0.4889	8.2000e- 004		1.2900e- 003	1.2900e- 003		1.2900e- 003	1.2900e- 003	0.0000	71.3916	71.3916	0.0200	0.0000	71.8910
Total	9.7100e- 003	0.0421	0.4889	8.2000e- 004	1.5500e- 003	1.2900e- 003	2.8400e- 003	2.3000e- 004	1.2900e- 003	1.5200e- 003	0.0000	71.3916	71.3916	0.0200	0.0000	71.8910

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	4.0000e- 005	2.1300e- 003	5.3000e- 004	1.0000e- 005	1.2300e- 003	2.0000e- 005	1.2600e- 003	6.5000e- 004	2.0000e- 005	6.8000e- 004	0.0000	1.0767	1.0767	2.0000e- 005	1.7000e- 004	1.1276
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.5000e- 004	6.7000e- 004	9.2200e- 003	3.0000e- 005	0.0132	2.0000e- 005	0.0133	7.1200e- 003	1.0000e- 005	7.1400e- 003	0.0000	2.5496	2.5496	6.0000e- 005	6.0000e- 005	2.5704
Total	9.9000e- 004	2.8000e- 003	9.7500e- 003	4.0000e- 005	0.0145	4.0000e- 005	0.0145	7.7700e- 003	3.0000e- 005	7.8200e- 003	0.0000	3.6262	3.6262	8.0000e- 005	2.3000e- 004	3.6981

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2024

#### **Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.3243	0.0000	0.3243	0.1667	0.0000	0.1667	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0439	0.4484	0.3025	6.3000e- 004		0.0203	0.0203		0.0187	0.0187	0.0000	55.2042	55.2042	0.0179	0.0000	55.6505
Total	0.0439	0.4484	0.3025	6.3000e- 004	0.3243	0.0203	0.3446	0.1667	0.0187	0.1854	0.0000	55.2042	55.2042	0.0179	0.0000	55.6505

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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
VVOINCI	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0626	1.0000e- 005	0.0626	6.7800e- 003	1.0000e- 005	6.7900e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235
Total	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0626	1.0000e- 005	0.0626	6.7800e- 003	1.0000e- 005	6.7900e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235

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#### CADO Warehouse Menifee With Construction Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.3 Site Preparation - 2024

#### **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					ton	s/yr							MT	/yr		
Fugitive Dust					0.1265	0.0000	0.1265	0.0650	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6800e- 003	0.0333	0.3443	6.3000e- 004		1.0200e- 003	1.0200e- 003		1.0200e- 003	1.0200e- 003	0.0000	55.2041	55.2041	0.0179	0.0000	55.6504
Total	7.6800e- 003	0.0333	0.3443	6.3000e- 004	0.1265	1.0200e- 003	0.1275	0.0650	1.0200e- 003	0.0660	0.0000	55.2041	55.2041	0.0179	0.0000	55.6504

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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
	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0125	1.0000e- 005	0.0125	6.7200e- 003	1.0000e- 005	6.7300e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235
Total	9.0000e- 004	6.4000e- 004	8.7000e- 003	3.0000e- 005	0.0125	1.0000e- 005	0.0125	6.7200e- 003	1.0000e- 005	6.7300e- 003	0.0000	2.4039	2.4039	6.0000e- 005	6.0000e- 005	2.4235

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024
Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Fugitive Dust					0.1564	0.0000	0.1564	0.0599	0.0000	0.0599	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0515	0.5180	0.4436	9.9000e- 004		0.0214	0.0214		0.0197	0.0197	0.0000	87.2312	87.2312	0.0282	0.0000	87.9366
Total	0.0515	0.5180	0.4436	9.9000e- 004	0.1564	0.0214	0.1778	0.0599	0.0197	0.0795	0.0000	87.2312	87.2312	0.0282	0.0000	87.9366

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0191	0.9575	0.2538	4.9000e- 003	2.6179	0.0109	2.6288	0.2884	0.0104	0.2988	0.0000	474.8575	474.8575	7.1900e- 003	0.0748	497.3404
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
VVOINGI	9.7000e- 004	6.8000e- 004	9.3700e- 003	3.0000e- 005	0.0674	2.0000e- 005	0.0674	7.3000e- 003	1.0000e- 005	7.3200e- 003	0.0000	2.5900	2.5900	6.0000e- 005	7.0000e- 005	2.6112
Total	0.0201	0.9582	0.2632	4.9300e- 003	2.6853	0.0109	2.6962	0.2957	0.0104	0.3061	0.0000	477.4476	477.4476	7.2500e- 003	0.0749	499.9516

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#### CADO Warehouse Menifee With Construction Mitigation - Riverside-South Coast County, Annual

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

<u>Mitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0610	0.0000	0.0610	0.0233	0.0000	0.0233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.2732	0.5002	9.9000e- 004		0.0106	0.0106		9.7800e- 003	9.7800e- 003	0.0000	87.2311	87.2311	0.0282	0.0000	87.9364
Total	0.0305	0.2732	0.5002	9.9000e- 004	0.0610	0.0106	0.0716	0.0233	9.7800e- 003	0.0331	0.0000	87.2311	87.2311	0.0282	0.0000	87.9364

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
Hauling	0.0191	0.9575	0.2538	4.9000e- 003	0.5387	0.0109	0.5496	0.2858	0.0104	0.2962	0.0000	474.8575	474.8575	7.1900e- 003	0.0748	497.3404
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
	9.7000e- 004	6.8000e- 004	9.3700e- 003	3.0000e- 005	0.0134	2.0000e- 005	0.0135	7.2400e- 003	1.0000e- 005	7.2500e- 003	0.0000	2.5900	2.5900	6.0000e- 005	7.0000e- 005	2.6112
Total	0.0201	0.9582	0.2632	4.9300e- 003	0.5522	0.0109	0.5630	0.2931	0.0104	0.3035	0.0000	477.4476	477.4476	7.2500e- 003	0.0749	499.9516

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.5 Building Construction - 2024 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0971	0.8873	1.0670	1.7800e- 003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0204	153.0204	0.0362	0.0000	153.9250
Total	0.0971	0.8873	1.0670	1.7800e- 003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0204	153.0204	0.0362	0.0000	153.9250

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/уг		
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	0.0218	0.7016	0.2763	3.5200e- 003	3.9639	5.7900e- 003	3.9697	0.4197	5.5400e- 003	0.4252	0.0000	338.9375	338.9375	3.6000e- 003	0.0500	353.9395
Worker	0.1585	0.1120	1.5325	4.6200e- 003	11.0243	2.6100e- 003	11.0269	1.1947	2.4000e- 003	1.1971	0.0000	423.6171	423.6171	9.9000e- 003	0.0108	427.0795
Total	0.1803	0.8135	1.8088	8.1400e- 003	14.9882	8.4000e- 003	14.9966	1.6144	7.9400e- 003	1.6223	0.0000	762.5547	762.5547	0.0135	0.0608	781.0189

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.5 Building Construction - 2024 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
J. Trodu	0.0216	0.1475	1.1524	1.7800e- 003		2.6900e- 003	2.6900e- 003		2.6900e- 003	2.6900e- 003	0.0000	153.0202	153.0202	0.0362	0.0000	153.9249
Total	0.0216	0.1475	1.1524	1.7800e- 003		2.6900e- 003	2.6900e- 003		2.6900e- 003	2.6900e- 003	0.0000	153.0202	153.0202	0.0362	0.0000	153.9249

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	-/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	0.0218	0.7016	0.2763	3.5200e- 003	0.7332	5.7900e- 003	0.7390	0.4177	5.5400e- 003	0.4232	0.0000	338.9375	338.9375	3.6000e- 003	0.0500	353.9395
Worker	0.1585	0.1120	1.5325	4.6200e- 003	2.1985	2.6100e- 003	2.2011	1.1838	2.4000e- 003	1.1862	0.0000	423.6171	423.6171	9.9000e- 003	0.0108	427.0795
Total	0.1803	0.8135	1.8088	8.1400e- 003	2.9317	8.4000e- 003	2.9401	1.6015	7.9400e- 003	1.6094	0.0000	762.5547	762.5547	0.0135	0.0608	781.0189

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025
<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0197	0.1845	0.3134	4.9000e- 004		9.0000e- 003	9.0000e- 003		8.2800e- 003	8.2800e- 003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894
Paving	0.0276					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0473	0.1845	0.3134	4.9000e- 004		9.0000e- 003	9.0000e- 003		8.2800e- 003	8.2800e- 003	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.5400e- 003	2.0000e- 005	3.5600e- 003	9.4000e- 004	1.0000e- 005	9.6000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416
Total	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.5400e- 003	2.0000e- 005	3.5600e- 003	9.4000e- 004	1.0000e- 005	9.6000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2025

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
1	6.0300e- 003	0.0261	0.3719	4.9000e- 004		8.0000e- 004	8.0000e- 004		8.0000e- 004	8.0000e- 004	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894
Paving	0.0276					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0336	0.0261	0.3719	4.9000e- 004		8.0000e- 004	8.0000e- 004		8.0000e- 004	8.0000e- 004	0.0000	43.0414	43.0414	0.0139	0.0000	43.3894

#### **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					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.2700e- 003	2.0000e- 005	3.2800e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416
Total	9.1000e- 004	6.2000e- 004	8.7900e- 003	3.0000e- 005	3.2700e- 003	2.0000e- 005	3.2800e- 003	8.7000e- 004	1.0000e- 005	8.9000e- 004	0.0000	2.5218	2.5218	6.0000e- 005	6.0000e- 005	2.5416

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2025 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	1.7499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	7.3500e- 003	0.0493	0.0778	1.3000e- 004		2.2100e- 003	2.2100e- 003		2.2100e- 003	2.2100e- 003	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940
Total	1.7573	0.0493	0.0778	1.3000e- 004		2.2100e- 003	2.2100e- 003		2.2100e- 003	2.2100e- 003	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0194	0.0131	0.1864	5.8000e- 004	0.0752	3.2000e- 004	0.0755	0.0200	3.0000e- 004	0.0203	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821
Total	0.0194	0.0131	0.1864	5.8000e- 004	0.0752	3.2000e- 004	0.0755	0.0200	3.0000e- 004	0.0203	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.7 Architectural Coating - 2025 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	√yr		
Archit. Coating	1.7499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	1.2800e- 003	5.5400e- 003	0.0788	1.3000e- 004		1.7000e- 004	1.7000e- 004		1.7000e- 004	1.7000e- 004	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940
Total	1.7512	5.5400e- 003	0.0788	1.3000e- 004		1.7000e- 004	1.7000e- 004		1.7000e- 004	1.7000e- 004	0.0000	10.9790	10.9790	6.0000e- 004	0.0000	10.9940

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0194	0.0131	0.1864	5.8000e- 004	0.0693	3.2000e- 004	0.0696	0.0185	3.0000e- 004	0.0188	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821
Total	0.0194	0.0131	0.1864	5.8000e- 004	0.0693	3.2000e- 004	0.0696	0.0185	3.0000e- 004	0.0188	0.0000	53.4611	53.4611	1.1700e- 003	1.3100e- 003	53.8821

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.0 Operational Detail - Mobile

#### **4.1 Mitigation Measures Mobile**

Implement Trip Reduction Program

Employee Vanpool/Shuttle

Provide Riade Sharing Program

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	1.8243	4.6658	17.0629	0.0519	4.7734	0.0595	4.8329	1.2830	0.0563	1.3393	0.0000	4,853.913 4	4,853.913 4	0.2154	0.3743	4,970.842 9
Unmitigated	1.8339	4.6824	17.2326	0.0524	4.8284	0.0598	4.8882	1.2977	0.0566	1.3542	0.0000	4,895.104 8	4,895.104 8	0.2169	0.3754	5,012.404 7

#### **4.2 Trip Summary Information**

	Avei	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	4,373.00	4,373.00	4373.00	10,937,065	10,790,509
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	135.00	135.00	135.00	1,631,455	1,631,455
Total	4,508.00	4,508.00	4,508.00	12,568,521	12,421,964

#### **4.3 Trip Type Information**

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		Miles			Trip %			Trip Purpos	e %
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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	0	0	0
General Office Building	16.60	8.40	6.90	0.00	100.00	0.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	33.20	0.00	0.00	100.00	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
General Office Building	0.577845	0.056458	0.173793	0.136090	0.025268	0.000000	0.000000	0.000000	0.000610	0.000304	0.023606	0.001094	0.004932
Other Asphalt Surfaces	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Parking Lot	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.170000	0.230000	0.600000	0.000000	0.000000	0.000000	0.000000	0.000000

## 5.0 Energy Detail

istorical Energy Use: N

## **5.1 Mitigation Measures Energy**

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	-/yr		
Electricity Mitigated																
Electricity Unmitigated	i i						       	i i						     		
NaturalGas Mitigated	!						       	i i						     		
NaturalGas Unmitigated								: : :								 

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# **5.2 Energy by Land Use - NaturalGas**

#### **Unmitigated**

	NaturalGa s 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					ton	s/yr							MT	-/yr		
City Park	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 Office Building	34300	1.8000e- 004	1.6800e- 003	1.4100e- 003	1.0000e- 005		1.3000e- 004	1.3000e- 004		1.3000e- 004	1.3000e- 004	0.0000	1.8304	1.8304	4.0000e- 005	3.0000e- 005	1.8413
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.38697e +006	7.4800e- 003	0.0680	0.0571	4.1000e- 004		5.1700e- 003	5.1700e- 003		5.1700e- 003	5.1700e- 003	0.0000	74.0142	74.0142	1.4200e- 003	1.3600e- 003	74.4541
Total		7.6600e- 003	0.0697	0.0585	4.2000e- 004		5.3000e- 003	5.3000e- 003		5.3000e- 003	5.3000e- 003	0.0000	75.8446	75.8446	1.4600e- 003	1.3900e- 003	76.2953

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## **5.2 Energy by Land Use - NaturalGas**

#### <u>/litigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
City Park	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 Office Building							 		       								
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	     	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail																	
Total																	

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity <u>Inmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
City Park					
General Office Building					
Other Asphalt Surfaces					
Parking Lot					
Unrefrigerated Warehouse-No Rail					
Total	·				

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity <a href="Mitigated">Mitigated</a>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	-/yr	
City Park	0				
General Office Building					
Other Asphalt Surfaces					
Parking Lot					
Unrefrigerated Warehouse-No Rail					[
Total					

#### 6.0 Area Detail

# **6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

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	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	2.9295	1.0000e- 004	0.0120	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005	0.0000	0.0217	0.0217	4.0000e- 005	0.0000	0.0228
Unmitigated	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429

# 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					ton	s/yr							МТ	/yr		
Architectural Coating	0.3372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5915					0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e- 003	1.9000e- 004	0.0207	0.0000	     	7.0000e- 005	7.0000e- 005	       	7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429
Total	2.9306	1.9000e- 004	0.0207	0.0000		7.0000e- 005	7.0000e- 005		7.0000e- 005	7.0000e- 005	0.0000	0.0403	0.0403	1.0000e- 004	0.0000	0.0429

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 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					ton	s/yr							MT	/yr		
Architectural Coating						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e- 004	1.0000e- 004	0.0120	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005	0.0000	0.0217	0.0217	4.0000e- 005	0.0000	0.0228
Total	2.9295	1.0000e- 004	0.0120	0.0000		3.0000e- 005	3.0000e- 005		3.0000e- 005	3.0000e- 005	0.0000	0.0217	0.0217	4.0000e- 005	0.0000	0.0228

# 7.0 Water Detail

# 7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category		МТ	-/yr	
lgatea	354.8818	4.2326	0.1025	491.2481
	440.6677	5.2904	0.1281	611.1105

# 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
City Park	0 / 7.4825	14.7428	1.2400e- 003	1.5000e- 004	14.8189
General Office Building	1.77734 / 1.08934	6.8145	0.0584	1.4300e- 003	8.7021
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	159.572 / 0	419.1105	5.2308	0.1265	587.5895
Total		440.6677	5.2904	0.1281	611.1105

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
City Park	0 / 7.02607	13.8435	1.1700e- 003	1.4000e- 004	13.9150
General Office Building	1.42187 / 1.02289	5.7499	0.0468	1.1500e- 003	7.2615
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	127.657 / 0	335.2884	4.1846	0.1012	470.0716
Total		354.8818	4.2326	0.1025	491.2481

#### 8.0 Waste Detail

#### **8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	-/yr	
······gatea	33.4164	1.9749	0.0000	82.7877
Jgatea	133.6655	7.8994	0.0000	331.1506

# 8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e	
Land Use	tons	MT/yr				
City Park	0.54	0.1096	6.4800e- 003	0.0000	0.2716	
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	648.64	131.6681	7.7814	0.0000	326.2020	
Total		133.6655	7.8994	0.0000	331.1506	

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 8.2 Waste by Land Use

#### **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e	
Land Use	tons	MT/yr				
City Park	0.135	0.0274	1.6200e- 003	0.0000	0.0679	
General Office Building	2.325	0.4720	0.0279	0.0000	1.1693	
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Rail	162.16	32.9170	1.9453	0.0000	81.5505	
Total		33.4164	1.9749	0.0000	82.7877	

# 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
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#### **Boilers**

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

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#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **User Defined Equipment**

Equipment Type Number

## 11.0 Vegetation

#### **CADO Electricity Emissions**

#### **Electricity Consumption and Solar PV Production Estimates**

 $49\,$  kW(dc) PV system to service 20% of the buildings anticipated electral demand  $81,\!830\,$  kWh

409,150 kWh/year total building electricty demand

Electricity consumption provided by the project developer and construction contractor (via email 2/14/24).

#### **Project Electricity Consumption**

	KSF	kWh/yr	MWh/yr	CO₂e/yr
Building	700.04	409,150	409.15	65.07
Parking	917.50	803.73	0.80	0.13
		Total Unmitigated	409.95	65.20
Solar Electricity Generation		-81,830	-81.83	-13.01
		Total Mitiaated	328.12	52.18

# SCE Electricity Intensity Factor CO<sub>2</sub>e (Metric Tons/MWh)

2025 0.159

Source: CalEEMod 2022 Users Guide, Appendix G, Table G-3.

#### **Annual Energy Use**

kWh/sq ft kWh/KSF
Parking (Lighting) 0.876 0.000876

Source: CalEEMod 2022 Users Guide, Appendix D6, Page D-21.