Date: September 20, 2023
To: Mr. Ryan Duke
From: M. S. Hatch Consulting, LLC
Subject: Air Quality Study – 70th Street East, Lancaster Clean Energy Site – Lancaster, CA

M. S. Hatch Consulting, LLC appreciates the opportunity to prepare the air quality study for the proposed construction and operation of the Lancaster Clean Energy Site for Duke Engineering (Duke). This proposed project consists of a 400 (MWe) green hydrogen electrolysis plant, 330 megawatt hour (MWh) battery long duration energy storage (LDES) system, and a ~650 megawatt (MW) photovoltaic (PV) solar generating facility on approximately 1,338 acres of land in the City of Lancaster. This air quality study includes the estimated criteria pollutant and greenhouse gas emissions from the construction and operation of the proposed project.

Executive Summary

Table 1 and Table 2 compare the estimated annual and daily emissions summaries from the construction and operation of the proposed project to the significant emission thresholds described in the Antelope Valley Air Quality Management District (AVAQMD) California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, dated August 2016, included in Attachment A. The estimated emissions of criteria pollutants and greenhouse gases from the construction and total operational emissions from the project **are below the applicable thresholds**. Greenhouse gas emissions are presented in units of carbon dioxide equivalent (CO_2e). The proposed project is not considered one of the project types that the AVAQMD CEQA Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations.[1] As such, hazardous air pollutants (HAP) emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors.

Table 1. Annual Emissions Summary and Significance Thresholds

Emissions Source	Total Emissions (tons per year)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e (MT/year)
Year 1 Construction Emissions (2024)	1.50	2.95	3.93	0.01	0.71	0.29	948
Year 2 Construction Emissions (2025)	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	1
Total Operational Emissions	**1.83**	**1.25**	**0.89**	**0.01**	**0.21**	**0.08**	**-230,319**
Significant Emissions Threshold	**25**	**25**	**100**	**25**	**15**	**12**	**100,000**

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent; MT: metric ton

[1] Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number 4 (refer to the significance threshold discussion): any industrial project within 1000 feet; a distribution center (40 or more trucks per day) within 1000 feet; a major transportation project (50,000 or more vehicles per day) within 1000 feet; a dry cleaner using perchloroethylene within 500 feet; or a gasoline dispensing facility within 300 feet.

Table 2. Daily Emissions Summary and Significance Thresholds

Emissions Source	Total Emissions (pounds per day)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
Year 1 Construction Emissions (2024)	18.49	32.42	36.78	0.10	9.04	5.11	10,070
Year 2 Construction Emissions (2025)	16.37	9.91	19.36	0.03	1.28	0.65	3,245
Total Operational Emissions	**10.08**	**6.61**	**4.99**	**0.03**	**1.18**	**0.45**	**4,864**
Significant Emissions Threshold	**137**	**137**	**548**	**137**	**82**	**65**	**548,000**

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent

Project Description

The proposed project includes the construction of a 400 MWe green hydrogen electrolysis plant, 330 MWh battery long duration energy storage (LDES) system, and an ~650 MW photovoltaic (PV) solar generating facility on 1,338 acres of land. The project site is a currently vacant lot located west of 70th Street East and south of Avenue J in Lancaster, CA. The site location is included in Figure 1 and the proposed site plan is included in Figure 2.

Figure 1. Regional Vicinity

Figure 2. Site Plan – Lancaster Clean Energy Site - Lancaster, CA

The emissions associated with the proposed project consist of construction and operational emissions from the development. Construction emissions are temporary and include emissions of criteria pollutants and greenhouse gases from construction activities during site preparation, grading, building construction, paving and architectural coatings. Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (e.g., commuting), solid waste disposal, and water and wastewater use (i.e., supplying and treating water and wastewater).

Emissions Estimates

Tables 3 and 4 present the annual and daily emissions summaries from the construction and operation of the proposed project, respectively. Emissions were estimated using CalEEMod Version 2020.4.0. The detailed emissions model outputs are included in Attachment B. This project is not considered one of the project types that the AVAQMD CEQA Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations. As such, HAP emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors.

Table 3. Annual Construction and Operational Emissions Summary

Emissions Source	Total Emissions (tons per year)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e (MT/year)
Construction Emissions							
Year 1 Construction Emissions (2024)	1.50	2.95	3.93	0.01	0.71	0.29	948
Year 2 Construction Emissions (2025)	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	1
Operational Emissions							
Area Sources	1.74	< 0.01	< 0.01	0.00	< 0.01	< 0.01	< 0.01
Energy	0.04	0.36	0.30	< 0.01	0.03	0.03	-231,345
Mobile	0.05	0.89	0.58	< 0.01	0.19	0.05	407
Waste	N/A	N/A	N/A	N/A	0.00	0.00	255
Water	N/A	N/A	N/A	N/A	0.00	0.00	364
Total Operational Emissions	**1.83**	**1.25**	**0.89**	**0.01**	**0.21**	**0.08**	**-230,319**
Significant Emissions Threshold	**25**	**25**	**100**	**25**	**15**	**12**	**100,000**

ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NO_X: oxides of nitrogen; CO: Carbon monoxide; SO_X: Oxides of sulfur; $PM_{2.5}$: particulate matter less than 2.5 micrometers in diameter; PM_{10}: particulate matter less than 10 micrometers in diameter; CO_2e: Carbon dioxide equivalent; MT: metric ton

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Year 2 Construction Emissions (2025)	16.37	9.91	19.36	0.03	1.28	0.65	3,245
Operational Emissions							
Area Sources	9.56	< 0.01	0.05	0.00	< 0.01	< 0.01	< 0.01
Energy	0.22	1.97	1.65	0.01	0.15	0.15	2,378
Mobile	0.30	4.64	3.29	0.02	1.03	0.30	2,487
Waste	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Operational Emissions	**10.08**	**6.61**	**4.99**	**0.03**	**1.18**	**0.45**	**4,864**
Significant Emissions Threshold	**137**	**137**	**548**	**137**	**82**	**65**	**548,000**

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Emissions Calculation Methodology

The construction and operational emissions for this project were based on the following CalEEMod land use types: *Manufacturing, General Light Industry, City Park, Parking Lot,* and *Other Non-Asphalt Surfaces*. A discussion on the land use types that were used for the emissions modeling is included below.

CalEEMod Land Use Type: Manufacturing

The *Manufacturing* land use type was used to model the emissions associated with the 400 MWe green hydrogen electrolysis plant and 330 MWh battery long duration energy storage (LDES) system. The total building square footage (358,414 square feet) and building footprint (8.22 acres) were provided by Duke.

CalEEMod Land Use Type: General Light Industry

The *General Light Industry* land use type was used to model the emissions associated with minimal construction activities needed to install the PV solar generating facility. The total PV solar generating facility square footage (49,514,652 square feet) and building footprint (1,136.70 acres) was provided by Duke. Upon review of similar projects, the *General Light Industry* land use type was determined to be the most appropriate land use subtype for construction activities needed to install the PV solar generating facility. To enable utilization of this land use subtype and to represent a very rough approximation of the amount of construction that will be required for the installation of the solar panels, a building square footage of 49,999 square feet was input into the model.

CalEEMod Land Use Type: City Park

The *City Park* land use type was used to model the emissions associated with the landscaping within the proposed development. The total acreage (0.23 acres) was provided by Duke.

CalEEMod Land Use Type: Parking Lot

The *Parking Lot* land use type was used to model the emissions associated with the parking lot within the proposed development. The total acreage (0.35 acres) and number of spaces (56) was provided by Duke.

CalEEMod Land Use Type: Other Non-Asphalt Surfaces

The *Other Non-Asphalt Surfaces* land use type was used to model the emissions associated with new areas of concrete within the development. The total acreage (12.60 acres) was provided by Duke.

Construction Emissions

Construction emissions were calculated using CalEEMod defaults and input provided by Duke. Duke reviewed and verified the list of construction equipment and the anticipated construction schedule.

Table 5 provides the anticipated construction schedule. Duke provided the proposed start date (1/1/2024) for the project and stated that work would be conducted five days per week. Based on input from Duke, the default number of days were shortened for each phase to match a more realistic timeline for this type of development.

Table 6 provides the anticipated number of equipment that will be used during each construction phase, the hours per day the equipment will be operated, and the horsepower of the equipment. The values in Table 6 are CalEEMod default values.

Based on input from Duke, this project will not require material import or export during the *Site Preparation* or *Grading* phases; as such, the emissions for material haul trips were not included in the construction emissions. For fugitive dust emissions, CalEEMod defaults do not include any control of fugitive dust from construction sites. AVAQMD Rule 403 requires that fugitive dust from any "active operation, open storage pile, or disturbed surface area" be controlled so that no presence of dust remains visible beyond the property line. To meet this requirement, the standard operation is watering active sites three times per day. Although the addition of watering for dust control is listed as a mitigation measure in CalEEMod, within the AVAQMD this is a requirement, and is therefore included.

For architectural coating operations, VOC emissions were calculated based on the assumption that the coatings would be compliant with the VOC content limits of AVAQMD Rule 1113.[2]

Table 5. Construction Schedule

Construction Phase	Start Date	End Date	Days/week	Total Days
Demolition	N/A	N/A	N/A	N/A
Site Preparation	1/1/2024	2/1/2024	5	24
Grading	2/2/2024	3/15/2024	5	31
Building Construction	3/16/2024	11/26/2024	5	182
Architectural Coating	6/6/2024	1/1/2025	5	150
Paving	11/27/2024	1/1/2025	5	26

Table 6. Construction Equipment

Construction Phase	Equipment	Number of Equipment	Hours per day	Horsepower
Site Preparation	Rubber Tired Dozers	3	8	247
Site Preparation	Tractors/Loaders/Backhoes	4	8	97
Grading	Excavators	2	8	158
Grading	Graders	1	8	187
Grading	Rubber Tired Dozers	1	8	247
Grading	Scrapers	2	8	367
Grading	Tractors/Loaders/Backhoes	2	8	97
Building Construction	Cranes	1	7	231
Building Construction	Forklifts	3	8	89
Building Construction	Generator Sets	1	8	84
Building Construction	Tractors/Loaders/Backhoes	3	7	97
Building Construction	Welders	1	8	46
Architectural Coating	Air Compressors	1	6	78
Paving	Pavers	2	8	130
Paving	Paving Equipment	2	8	132
Paving	Rollers	2	8	80

Operational Emissions

Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (e.g., commuting), solid waste disposal, and water and wastewater use (i.e., supplying and treating water and wastewater). Displaced emissions from proposed onsite electricity production were modeled based on an estimated electricity generation of ~1,300 Gigawatt hours (GWh) annually provided by Duke. For architectural coating operations (i.e., re-applying coatings), VOC emissions were calculated based on the assumption that the coatings would be compliant with the VOC content limits of AVAQMD Rule 1113.[2]

[2] For building coatings, assumed to be 90% flat paints (50 g/L) and 10% non-flat paints (100 g/L). For the parking lot coatings, assumed to be compliant with the Traffic Marking Coating category (100 g/L). VOC limits based on AVAQMD Rule 1113.

For mobile source emissions, it was assumed that there would not be any external vehicle trips to the landscaped areas, modeled under the *City Park* land use type. Based on input from Duke, the project is expected to have up to 70 heavy duty truck and 36 employee vehicles travelling to and from the facility daily. All of the trucks will be zero-emission Class 8 trucks[3], though CalEEMod default emission factors were used to provide conservative emissions associated with the project.

The outdoor water use associated with the PV solar generating facility was adjusted to 5 acre-ft per year (1,629,500 gallons/year) for solar panel cleaning, maintenance, and ancillary activities. The indoor water use associated with the green hydrogen electrolysis plant was adjusted to 300 acre-ft per year (97,770,000 gallons/year) for electrolysis and cooling. Water use information was provided by Duke.

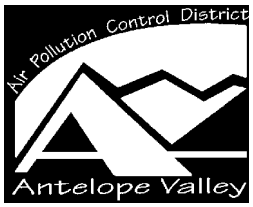
All other operational emission sources were calculated using CalEEMod default factors.

Findings

The estimated emissions of criteria pollutants and greenhouse gases from the construction and the total operational emissions **are below the applicable AVAQMD Significant Emissions Thresholds**; therefore, this project does not have a significant air quality impact on the environment. In addition, this project is not expected to expose sensitive receptors to substantial pollutant concentrations. Since the construction and operational emissions are below the significance thresholds, emissions mitigation measures are not required.

[3] Provided in Project Description by Duke Engineering on 8/3/2023.

ATTACHMENT A – Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines



Antelope Valley AQMD

California Environmental Quality Act (CEQA)

and

Federal Conformity

Guidelines

August 2016

AVAQMD Planning, Rule-making and Grants Section
AVAQMD Air Monitoring Section

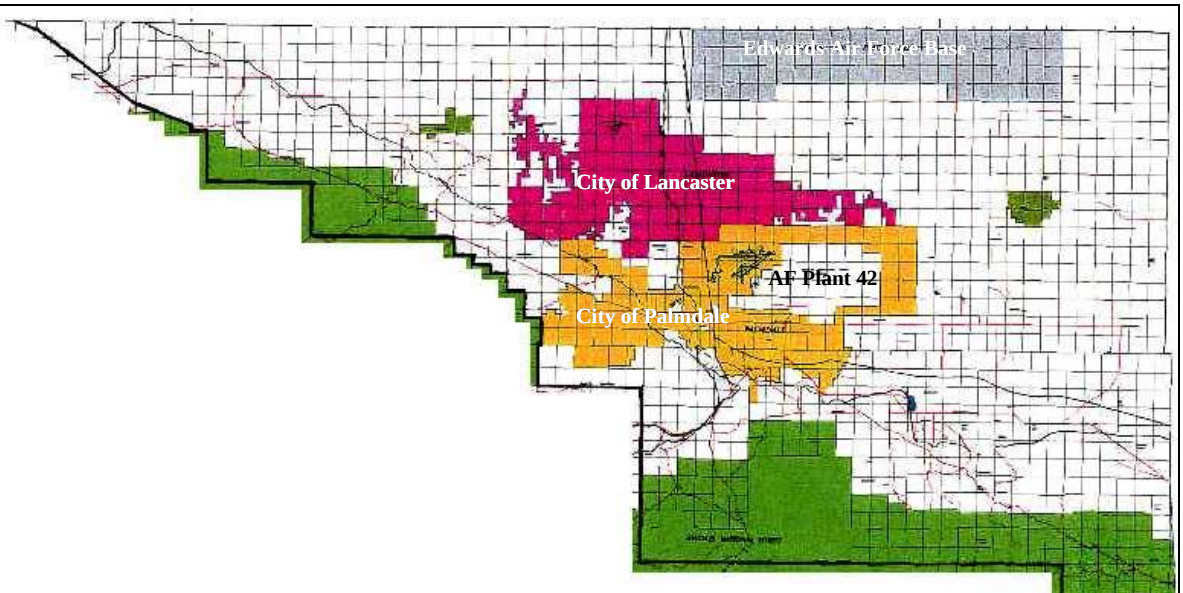
Table of Contents

Background

Under the California Environmental Quality Act (CEQA), the AVAQMD (District) is an expert commenting agency on air quality and related matters within its jurisdiction (or impacting on its jurisdiction). The District has dedicated resources to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. The District has adopted a federal attainment plan for ozone pursuant to the Federal Clean Air Act.

Purpose

These Guidelines are intended to assist persons preparing environmental analysis or review documents for any project within the jurisdiction of the District by providing background information and guidance on the preferred analysis approach.



Map 1 - Antelope Valley Air Quality Management District Jurisdiction

Jurisdiction

The District has jurisdiction over the northern, desert portion of Los Angeles County (please refer to Map 1). This region includes the incorporated cities of Lancaster and Palmdale, Air Force Plant 42, and the southern portion of Edwards Air Force Base. The Kern County-Los Angeles County boundary forms the northern boundary of the District; the San Bernardino-Los Angeles County boundary forms the eastern boundary of the District.

Non-attainment Designations and Classification Status

The United States Environmental Protection Agency and the California Air Resources Board have designated portions of the District non-attainment for a variety of pollutants, and some of those designations have an associated classification. Please refer to Table 1 for a chart of these designations and classifications.

Table 1 – AVAQMD Designations and Classifications

Ambient Air Quality Standard	**AVAQMD**
One-hour Ozone (Federal) – standard has been revoked, this is historical information only	Proposed attainment in 2014; historical classification Severe-17
Eight-hour Ozone (Federal 84 ppb (1997))	Subpart 2 Nonattainment; classified Severe-15
Eight-hour Ozone (Federal 75 ppb (2008))	Nonattainment, classified Severe-15
Eight-hour Ozone (Federal 70 ppb (2015))	Expected nonattainment; classification to be determined
Ozone (State)	Nonattainment; classified Extreme
PM_{10} 24-hour (Federal)	Unclassifiable/attainment
$PM_{2.5}$ Annual (Federal)	Unclassified/attainment
$PM_{2.5}$ 24-hour (Federal)	Unclassified/attainment
$PM_{2.5}$ (State)	Unclassified
PM_{10} (State)	Nonattainment
Carbon Monoxide (State and Federal)	Attainment
Nitrogen Dioxide (State and Federal)	Attainment/unclassified
Sulfur Dioxide (State and Federal)	Attainment/unclassified
Lead (State and Federal)	Attainment
Particulate Sulfate (State)	Unclassified
Hydrogen Sulfide (State)	Unclassified
Visibility Reducing Particles (State)	Unclassified

Attainment Plans

The District has adopted a single attainment plan for ozone. Please refer to Table 2 for information regarding this attainment plan.

Table 2 – AVAQMD Attainment Plans

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Targeted	Attainment Date*
AVAQMD 2004 Ozone Attainment Plan (State and Federal)	4/2004	Federal one hour ozone	Entire District	NO_x and VOC	2007
AVAQMD Federal 8-Hour Ozone Attainment Plan	5/20/2008	Federal eight hour ozone (84 ppb)	Entire District	NO_x and VOC	2019 (revised from 2021)

*Note: A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been re-designated to attainment; please refer to Table 1.

Rules and Regulations

The District maintains a set of Rules and Regulations to improve air quality and maintain good air quality. Please contact the District to obtain a copy of the District rulebook, or visit www.avaqmd.ca.gov.

Recommended Environmental Setting Elements

Air Quality Data

The District gathers a variety of air quality data at the Lancaster monitoring site. Table 3 details the data available from the District for this site.

Table 3 - Available Air Quality Data

Site	Address	Pollutants	Dates
Lancaster	W. Ponderosa	O_3, NO_x, CO, PM_{10} (Hi-Vol and TEOM)	7/1/97 to 11/01
Lancaster	W. Ponderosa	$PM_{2.5}$	1/1/99 to 11/01
Lancaster	43301 Division St.	O_3, NO_x, CO, PM_{10} (hourly), $PM_{2.5}$	11/01 to present

Meteorological Data

A variety of meteorological data is available from the District for the Lancaster site. Table 4 contains a list of the data available for the Lancaster site.

Table 4 - Available Meteorological Data

Site	Address	Data	Dates
Lancaster	W. Ponderosa	Wind speed/direction, pressure, temperature, humidity	7/1/97 to 11/01
Lancaster	43301 Division St.	Wind speed/direction, pressure, temperature, humidity	11/01 to present

Topography and Climate Discussion

The District covers a western portion of the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. The Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevadas in the north by the Tehachapi Pass (3,800 ft elevation). The Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 ft).

During the summer the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time the reach the desert. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. MDAB annual average precipitation is presented in Table 5; the data displayed is 1981-2010 averages from the NOAA National Climate Data Center. The MDAB is classified as a dry-hot desert climate (BWh), with portions classified as dry-very hot desert (BWhh), to indicate at least three months have maximum average temperatures over 100.4° F.

Table 5 - MDAB Average Annual Precipitation

Site	County	District	Precipitation (inches)
Baker	San Bernardino	MDAQMD	4.48
Barstow Daggett Airport	San Bernardino	MDAQMD	4.06
Barstow	San Bernardino	MDAQMD	5.30
Blythe Airport	Riverside	MDAQMD	3.77
Desert Center 2 NNE	Riverside	SCAQMD	3.92
Eagle Mountain	Riverside	SCAQMD	4.10
Goldstone Echo Number 2	San Bernardino	MDAQMD	5.88
Joshua Tree	San Bernardino	MDAQMD	5.11
Lancaster Wm J Fox Field	Los Angeles	AVAQMD	7.38
Mitchell Caverns	San Bernardino	MDAQMD	11.50
Mojave	Kern	EKAPCD	6.67
Mountain Pass 1 SE	San Bernardino	MDAQMD	9.94
Needles Airport	San Bernardino	MDAQMD	4.62
Palmdale Airport	Los Angeles	AVAQMD	8.30
Palmdale	Los Angeles	AVAQMD	7.40

Site	County	District	Precipitation (inches)
Parker Reservoir	San Bernardino	MDAQMD	6.16
Pearblossom	Los Angeles	AVAQMD	6.73
Randsburg	Kern	EKAPCD	7.26
Trona	San Bernardino	MDAQMD	3.88
Twentynine Palms	San Bernardino	MDAQMD	4.46
Victorville Pump Plant	San Bernardino	MDAQMD	6.15
Wrightwood	Los Angeles	AVAQMD	22.61

Recommended Impacts Discussion Elements

Direct Impacts

Direct impacts are the result of the project itself (from its construction and operation), in the form of project activity and trips generated by the project. For example, in the case of a subdivision project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), housing use activity (natural gas consumption) and trips to and from the housing (vehicle exhaust, tire wear) represent direct impacts. In the case of a new mine project, construction emissions (equipment exhaust, wind erosion, vehicle exhaust), material handling (drilling, blasting, transfers, crushing, screening, bagging), operational emissions (wind erosion, vehicle travel, vehicle exhaust, tire wear), and employee/customer/delivery travel (vehicle exhaust, tire wear) represent direct impacts.

Indirect Impacts

Indirect impacts are the result of changes that would not occur without the project. In the case of a subdivision project, indirect impacts on the surrounding community can be generated in many ways: nearby construction of roadways (or roadway modifications) and other infrastructure to support the subdivision, construction and operation of new commercial/retail establishments, changes in traffic/circulation patterns that result in increased congestion/delays, etc. In the case of a new mine project, indirect impacts can be generated by nearby construction of infrastructure to support the mine, housing constructed and/or occupied by mine employees, changes in traffic/circulation patterns that result in increased congestion/delays, etc.

Cumulative Impacts

Cumulative impacts are similar to direct and indirect impacts of the project, which the project contributes to. In the case of a subdivision project, a given project has a cumulative impact with all other subdivision projects, from the standpoint of each type of impact (cumulative construction emissions, residential natural gas consumption, solvent use, transportation emissions, congestion, etc.). Similarly, a new mine project has a cumulative impact with all other mining projects, from the standpoint of each type of impact (cumulative construction emissions, diesel equipment emissions, blasting emissions, fugitive emissions, transportation, congestion, etc.).

Conformity Impacts

A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

Sensitive Receptor Land Uses

Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using significance threshold criteria number 4 (refer to the significance threshold discussion):

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

Recommended Substantiation Discussion Elements

For projects applying the emissions-based significance thresholds, project emissions quantification is required. In addition the environmental documentation must include support for the quantification methodology used, including emission factors, emission factors source, assumptions, and sample calculations where necessary. For projects using a calculation tool such as CalEEMod or URBEMIS, the support section must specify the inputs and settings used for the evaluation.

Significance Thresholds

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

1. Generates total emissions (direct and indirect) in excess of the thresholds given in Table 6;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) [1];

[1] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.*

**Refer to the Sensitive Receptor Land Use discussion above*

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that a multi-phased project (such as a project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

Table 6 – Significant Emissions Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_x)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_x)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

District Contacts

If an address is not listed, please use the general address, to the attention of the listed individual.

AVAQMD General and Rulebook	Crystal Goree (661) 723-8070 x1 Mailing and Physical Address: 43301 Division St., Suite 206 Lancaster, CA 93535-4649
Planning and Rules	Tracy Walters (760) 245-1661 x6122
Air Quality and Meteorological Data	Orlando Salinas (760) 245-1661 x1810
CEQA and Conformity	Alan De Salvio (760) 245-1661 x6726
Permitting	Bret Banks (661) 723-8070 x2

Appendix A – Basic Definitions of Major Air Pollutants

Technical and/or legal definitions exist for many of these pollutants, depending on context. The following definitions are for general, introductory purposes only:

Carbon Dioxide (CO_2) – Common product of combustion. Not a criteria pollutant, but considered an important "greenhouse gas." Important on a national or global scale.

Carbon Monoxide (CO) – Common product of incomplete combustion. A criteria pollutant with state and federal standards. Not a primary photochemical reaction compound, but involved in photochemical reactions. Dissipates rapidly, and is therefore only important on a local scale near sources.

Criteria Pollutants – Those air pollutants specifically identified for control under the Federal Clean Air Act (currently six: carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone and particulates).

Lead (Pb) – A heavy metal, present in the environment mainly due to historical use in motor vehicle fuel. Primarily associated with lead smelting operations. A criteria pollutant with state and federal standards. Primarily of concern near sources.

Oxides of Nitrogen (NO_x) – Common product of combustion in the presence of nitrogen. Includes NO_2, which is a criteria pollutant with state and federal standards. Locally and regionally important due to its involvement in the photochemical formation of ozone.

Oxides of Sulfur (SO_x) – Common product of combustion in the presence of sulfur. Associated primarily with diesel and coal burning. Includes SO_2, a criteria pollutant with state and federal standards. Primarily of concern near sources.

Ozone (O_3) – A gas mainly produced by a photochemical reaction between reactive organic gases and oxides of nitrogen in the presence of sunlight (also produced by molecular oxygen in the presence of ultraviolet light or electrical discharge). A strong oxidant that is damaging at ground level but necessary at high altitude (in the stratosphere, where it absorbs dangerous ultraviolet light). Also considered an important greenhouse gas. A criteria pollutant with state and federal standards.

Particulate Matter (TSP or PM_{30}) – Solid or liquid matter suspended in the atmosphere, excluding water. Includes aerosols and droplets that form in the atmosphere. Locally and regionally important.

Reactive/Volatile Organic Compounds/Gases (ROG, VOC, NMOG, NMOC) – A portion of total organic compounds or gases, excludes methane, ethane and acetone (due to low photochemical reactivity). "ROG" is generally used by the California Air Resources Board, "VOC" is generally used by the United States Environmental Protection Agency, but all four terms are interchangeable for most uses. Regionally important due to its involvement in the photochemical reaction that produces ozone.

Respirable Particulate Matter (coarse or PM_{10}, and fine or $PM_{2.5}$) – That portion of particulate matter that tends to penetrate into the human lung. The subscript refers to aerodynamic diameter. Criteria pollutants with state and federal standards. Locally and regionally important.

Total Organic Compounds/Gases (TOC or TOG) – Compounds containing at least one atom of carbon, except carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and metallic carbonates. Primarily methane in the atmosphere, a "greenhouse gas."

ATTACHMENT B – CalEEMod Emissions Model Output

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Annual

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

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA

Antelope Valley APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	49.90	1000sqft	1,136.70	49,900.00	0
Manufacturing	358.41	1000sqft	8.22	358,414.00	0
Other Non-Asphalt Surfaces	12.60	Acre	12.60	548,856.00	0
Parking Lot	56.00	Space	0.35	22,400.00	0
City Park	0.23	Acre	0.23	10,018.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Information provided by client.

Construction Phase - An estimated start date of 01/01/2024 and five days per week was provided by client. Adjusted phase durations to more realistic timeline. For architectural coating phase, assumed overlap with paving and building construction phases.

Trips and VMT -

Grading -

Architectural Coating - VOC limits from AVAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Annual

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

Vehicle Trips - All areas modeled as a City Park are within the development and no vehicle trips are expected. Assumed facility will be operating Monday - Sunday, 9am - 5pm. Updated weekly trip rates to reflect employee counts and on-road truck trips data provided by client.

Fleet Mix - Adjusted Manufacturing and General Light Industry fleet mix to reflect number of employees on site and operational on-road equipment information provided by client.

Area Coating - VOC limits from AVAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Energy Use -

Water And Wastewater - Annual water usage for hydrogen plant and PV solar array provided by client.

Construction Off-road Equipment Mitigation - Assumes that construction site will be watered 3 times per day to be in compliance with AVAQMD Rule 403.

Area Mitigation - -

Energy Mitigation - Renewable energy generation data provided by client.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	55.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	55.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	55.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	55.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	55
tblAreaCoating	Area_EF_Nonresidential_Interior	250	55
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	55
tblAreaCoating	Area_EF_Residential_Interior	250	55
tblConstructionPhase	NumDays	6,000.00	24.00
tblConstructionPhase	NumDays	15,500.00	31.00
tblConstructionPhase	NumDays	155,000.00	182.00
tblConstructionPhase	NumDays	11,000.00	150.00
tblConstructionPhase	NumDays	11,000.00	26.00
tblFleetMix	HHD	9.2740e-003	0.46
tblFleetMix	HHD	9.2740e-003	0.46
tblFleetMix	LDA	0.60	0.21

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

tblFleetMix	LDA	0.60	0.21
tblFleetMix	LDT1	0.05	0.02
tblFleetMix	LDT1	0.05	0.02
tblFleetMix	LDT2	0.14	0.05
tblFleetMix	LDT2	0.14	0.05
tblFleetMix	LHD1	0.03	8.8380e-003
tblFleetMix	LHD1	0.03	8.8380e-003
tblFleetMix	LHD2	7.1310e-003	2.4990e-003
tblFleetMix	LHD2	7.1310e-003	2.4990e-003
tblFleetMix	MCY	0.03	9.5370e-003
tblFleetMix	MCY	0.03	9.5370e-003
tblFleetMix	MDV	0.11	0.04
tblFleetMix	MDV	0.11	0.04
tblFleetMix	MH	5.8330e-003	0.00
tblFleetMix	MH	5.8330e-003	0.00
tblFleetMix	MHD	0.01	0.20
tblFleetMix	MHD	0.01	0.20
tblFleetMix	OBUS	7.0400e-004	0.00
tblFleetMix	OBUS	7.0400e-004	0.00
tblFleetMix	SBUS	2.3870e-003	0.00
tblFleetMix	SBUS	2.3870e-003	0.00
tblFleetMix	UBUS	4.9100e-004	0.00
tblFleetMix	UBUS	4.9100e-004	0.00
tblLandUse	LandUseSquareFeet	358,410.00	358,414.00
tblLandUse	LotAcreage	1.15	1,136.70
tblLandUse	LotAcreage	8.23	8.22
tblLandUse	LotAcreage	0.50	0.35
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00

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

tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.99	1.2845e-003
tblVehicleTrips	ST_TR	6.42	0.41
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	5.00	1.2845e-003
tblVehicleTrips	SU_TR	5.09	0.41
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	4.96	1.2845e-003
tblVehicleTrips	WD_TR	3.93	0.41
tblWater	IndoorWaterUseRate	11,539,375.00	0.00
tblWater	IndoorWaterUseRate	82,882,312.50	97,770,000.00
tblWater	OutdoorWaterUseRate	0.00	1,629,500.00

2.0 Emissions Summary

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, 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	tons/yr										MT/yr					
2024	1.5006	2.9503	3.9303	0.0103	0.8372	0.1067	0.9439	0.3020	0.0998	0.4017	0.0000	931.0526	931.0526	0.1108	0.0470	947.8328
2025	8.1600e-003	4.9600e-003	9.4800e-003	2.0000e-005	3.9000e-004	2.4000e-004	6.3000e-004	1.0000e-004	2.2000e-004	3.3000e-004	0.0000	1.4333	1.4333	3.4000e-004	1.0000e-005	1.4445
Maximum	**1.5006**	**2.9503**	**3.9303**	**0.0103**	**0.8372**	**0.1067**	**0.9439**	**0.3020**	**0.0998**	**0.4017**	**0.0000**	**931.0526**	**931.0526**	**0.1108**	**0.0470**	**947.8328**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	1.5006	2.9503	3.9303	0.0103	0.6063	0.1067	0.7130	0.1935	0.0998	0.2932	0.0000	931.0522	931.0522	0.1108	0.0470	947.8324
2025	8.1600e-003	4.9600e-003	9.4800e-003	2.0000e-005	3.9000e-004	2.4000e-004	6.3000e-004	1.0000e-004	2.2000e-004	3.3000e-004	0.0000	1.4333	1.4333	3.4000e-004	1.0000e-005	1.4445
Maximum	**1.5006**	**2.9503**	**3.9303**	**0.0103**	**0.6063**	**0.1067**	**0.7130**	**0.1935**	**0.0998**	**0.2932**	**0.0000**	**931.0522**	**931.0522**	**0.1108**	**0.0470**	**947.8324**

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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	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**27.57**	**0.00**	**24.45**	**35.92**	**0.00**	**26.99**	**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	**1-1-2024**	**3-31-2024**	1.0260	1.0260
2	**4-1-2024**	**6-30-2024**	0.9138	0.9138
3	**7-1-2024**	**9-30-2024**	1.3240	1.3240
4	**10-1-2024**	**12-31-2024**	1.1674	1.1674
5	**1-1-2025**	**3-31-2025**	0.0094	0.0094
		Highest	1.3240	1.3240

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7441	4.0000e-005	4.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5300e-003	8.5300e-003	2.0000e-005	0.0000	9.0800e-003
Energy	0.0395	0.3595	0.3020	2.1600e-003		0.0273	0.0273		0.0273	0.0273	0.0000	1,179.1258	1,179.1258	0.0740	0.0152	1,185.5154
Mobile	0.0493	0.8910	0.5846	4.1000e-003	0.1804	4.7300e-003	0.1852	0.0501	4.5200e-003	0.0546	0.0000	391.0283	391.0283	5.2000e-003	0.0538	407.2018
Waste						0.0000	0.0000		0.0000	0.0000	102.7804	0.0000	102.7804	6.0742	0.0000	254.6341
Water						0.0000	0.0000		0.0000	0.0000	31.0179	229.5226	260.5406	3.2052	0.0776	363.7875
Total	**1.8329**	**1.2505**	**0.8909**	**6.2600e-003**	**0.1804**	**0.0321**	**0.2125**	**0.0501**	**0.0319**	**0.0820**	**133.7983**	**1,799.6853**	**1,933.4836**	**9.3586**	**0.1466**	**2,211.1479**

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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	CO	SO2	Fugitive 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	1.7441	4.0000e-005	4.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5300e-003	8.5300e-003	2.0000e-005	0.0000	9.0800e-003
Energy	0.0395	0.3595	0.3020	2.1600e-003		0.0273	0.0273		0.0273	0.0273	0.0000	-230,157.8744	-230,157.8744	-19.4516	-2.3515	-231,344.9135
Mobile	0.0493	0.8910	0.5846	4.1000e-003	0.1804	4.7300e-003	0.1852	0.0501	4.5200e-003	0.0546	0.0000	391.0283	391.0283	5.2000e-003	0.0538	407.2018
Waste						0.0000	0.0000		0.0000	0.0000	102.7804	0.0000	102.7804	6.0742	0.0000	254.6341
Water						0.0000	0.0000		0.0000	0.0000	31.0179	229.5226	260.5406	3.2052	0.0776	363.7875
Total	**1.8329**	**1.2505**	**0.8909**	**6.2600e-003**	**0.1804**	**0.0321**	**0.2125**	**0.0501**	**0.0319**	**0.0820**	**133.7983**	**-229,537.3150**	**-229,403.5166**	**-10.1670**	**-2.2201**	**-230,319.2810**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**12,854.30**	**11,964.78**	**208.64**	**1,613.98**	**10,516.28**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	2/1/2024	5	24	
2	Grading	Grading	2/2/2024	3/15/2024	5	31	
3	Building Construction	Building Construction	3/16/2024	11/26/2024	5	182	

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

4	Architectural Coating	Architectural Coating	6/6/2024	1/1/2025	5	150	
5	Paving	Paving	11/27/2024	1/1/2025	5	26	

Acres of Grading (Site Preparation Phase): 36

Acres of Grading (Grading Phase): 93

Acres of Paving: 12.95

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 612,471; Non-Residential Outdoor: 204,157; Striped Parking Area: 34,275 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	416.00	162.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	83.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 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	tons/yr										MT/yr					
Fugitive Dust					0.2359	0.0000	0.2359	0.1212	0.0000	0.1212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.3261	0.2200	4.6000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	40.1485	40.1485	0.0130	0.0000	40.4731
Total	**0.0319**	**0.3261**	**0.2200**	**4.6000e-004**	**0.2359**	**0.0148**	**0.2506**	**0.1212**	**0.0136**	**0.1348**	**0.0000**	**40.1485**	**40.1485**	**0.0130**	**0.0000**	**40.4731**

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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 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.9000e-004	6.1100e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7500e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3893	1.3893	5.0000e-005	4.0000e-005	1.4035
Total	**6.2000e-004**	**4.9000e-004**	**6.1100e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7500e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.3893**	**1.3893**	**5.0000e-005**	**4.0000e-005**	**1.4035**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0920	0.0000	0.0920	0.0473	0.0000	0.0473	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.3261	0.2200	4.6000e-004		0.0148	0.0148		0.0136	0.0136	0.0000	40.1484	40.1484	0.0130	0.0000	40.4731
Total	**0.0319**	**0.3261**	**0.2200**	**4.6000e-004**	**0.0920**	**0.0148**	**0.1067**	**0.0473**	**0.0136**	**0.0609**	**0.0000**	**40.1484**	**40.1484**	**0.0130**	**0.0000**	**40.4731**

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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 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.9000e-004	6.1100e-003	2.0000e-005	1.7400e-003	1.0000e-005	1.7500e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3893	1.3893	5.0000e-005	4.0000e-005	1.4035
Total	**6.2000e-004**	**4.9000e-004**	**6.1100e-003**	**2.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7500e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.3893**	**1.3893**	**5.0000e-005**	**4.0000e-005**	**1.4035**

3.3 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	tons/yr										MT/yr					
Fugitive Dust					0.1427	0.0000	0.1427	0.0566	0.0000	0.0566	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.5018	0.4297	9.6000e-004		0.0207	0.0207		0.0190	0.0190	0.0000	84.5053	84.5053	0.0273	0.0000	85.1885
Total	**0.0499**	**0.5018**	**0.4297**	**9.6000e-004**	**0.1427**	**0.0207**	**0.1634**	**0.0566**	**0.0190**	**0.0757**	**0.0000**	**84.5053**	**84.5053**	**0.0273**	**0.0000**	**85.1885**

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

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-004	7.1000e-004	8.7700e-003	2.0000e-005	2.5000e-003	1.0000e-005	2.5100e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	1.9939	1.9939	7.0000e-005	6.0000e-005	2.0142
Total	**8.9000e-004**	**7.1000e-004**	**8.7700e-003**	**2.0000e-005**	**2.5000e-003**	**1.0000e-005**	**2.5100e-003**	**6.6000e-004**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**1.9939**	**1.9939**	**7.0000e-005**	**6.0000e-005**	**2.0142**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0556	0.0000	0.0556	0.0221	0.0000	0.0221	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.5018	0.4297	9.6000e-004		0.0207	0.0207		0.0190	0.0190	0.0000	84.5052	84.5052	0.0273	0.0000	85.1884
Total	**0.0499**	**0.5018**	**0.4297**	**9.6000e-004**	**0.0556**	**0.0207**	**0.0763**	**0.0221**	**0.0190**	**0.0411**	**0.0000**	**84.5052**	**84.5052**	**0.0273**	**0.0000**	**85.1884**

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

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-004	7.1000e-004	8.7700e-003	2.0000e-005	2.5000e-003	1.0000e-005	2.5100e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	1.9939	1.9939	7.0000e-005	6.0000e-005	2.0142
Total	**8.9000e-004**	**7.1000e-004**	**8.7700e-003**	**2.0000e-005**	**2.5000e-003**	**1.0000e-005**	**2.5100e-003**	**6.6000e-004**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**1.9939**	**1.9939**	**7.0000e-005**	**6.0000e-005**	**2.0142**

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1339	1.2234	1.4712	2.4500e-003		0.0558	0.0558		0.0525	0.0525	0.0000	210.9827	210.9827	0.0499	0.0000	212.2300
Total	**0.1339**	**1.2234**	**1.4712**	**2.4500e-003**		**0.0558**	**0.0558**		**0.0525**	**0.0525**	**0.0000**	**210.9827**	**210.9827**	**0.0499**	**0.0000**	**212.2300**

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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 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0166	0.5870	0.2250	2.7500e-003	0.0983	2.8900e-003	0.1012	0.0284	2.7600e-003	0.0311	0.0000	263.5168	263.5168	1.5000e-003	0.0380	274.8755
Worker	0.1093	0.0864	1.0714	2.6600e-003	0.3049	1.8100e-003	0.3067	0.0810	1.6600e-003	0.0827	0.0000	243.4840	243.4840	8.3600e-003	7.6400e-003	245.9685
Total	**0.1258**	**0.6734**	**1.2965**	**5.4100e-003**	**0.4031**	**4.7000e-003**	**0.4078**	**0.1094**	**4.4200e-003**	**0.1138**	**0.0000**	**507.0009**	**507.0009**	**9.8600e-003**	**0.0456**	**520.8440**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1339	1.2234	1.4712	2.4500e-003		0.0558	0.0558		0.0525	0.0525	0.0000	210.9824	210.9824	0.0499	0.0000	212.2297
Total	**0.1339**	**1.2234**	**1.4712**	**2.4500e-003**		**0.0558**	**0.0558**		**0.0525**	**0.0525**	**0.0000**	**210.9824**	**210.9824**	**0.0499**	**0.0000**	**212.2297**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0166	0.5870	0.2250	2.7500e-003	0.0983	2.8900e-003	0.1012	0.0284	2.7600e-003	0.0311	0.0000	263.5168	263.5168	1.5000e-003	0.0380	274.8755
Worker	0.1093	0.0864	1.0714	2.6600e-003	0.3049	1.8100e-003	0.3067	0.0810	1.6600e-003	0.0827	0.0000	243.4840	243.4840	8.3600e-003	7.6400e-003	245.9685
Total	**0.1258**	**0.6734**	**1.2965**	**5.4100e-003**	**0.4031**	**4.7000e-003**	**0.4078**	**0.1094**	**4.4200e-003**	**0.1138**	**0.0000**	**507.0009**	**507.0009**	**9.8600e-003**	**0.0456**	**520.8440**

3.5 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	1.1129					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.0908	0.1349	2.2000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003	0.0000	19.0217	19.0217	1.0700e-003	0.0000	19.0485
Total	**1.1263**	**0.0908**	**0.1349**	**2.2000e-004**		**4.5400e-003**	**4.5400e-003**		**4.5400e-003**	**4.5400e-003**	**0.0000**	**19.0217**	**19.0217**	**1.0700e-003**	**0.0000**	**19.0485**

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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 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0178	0.0141	0.1750	4.3000e-004	0.0498	3.0000e-004	0.0501	0.0132	2.7000e-004	0.0135	0.0000	39.7713	39.7713	1.3600e-003	1.2500e-003	40.1772
Total	**0.0178**	**0.0141**	**0.1750**	**4.3000e-004**	**0.0498**	**3.0000e-004**	**0.0501**	**0.0132**	**2.7000e-004**	**0.0135**	**0.0000**	**39.7713**	**39.7713**	**1.3600e-003**	**1.2500e-003**	**40.1772**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1129					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.0908	0.1349	2.2000e-004		4.5400e-003	4.5400e-003		4.5400e-003	4.5400e-003	0.0000	19.0217	19.0217	1.0700e-003	0.0000	19.0485
Total	**1.1263**	**0.0908**	**0.1349**	**2.2000e-004**		**4.5400e-003**	**4.5400e-003**		**4.5400e-003**	**4.5400e-003**	**0.0000**	**19.0217**	**19.0217**	**1.0700e-003**	**0.0000**	**19.0485**

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

3.5 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0178	0.0141	0.1750	4.3000e-004	0.0498	3.0000e-004	0.0501	0.0132	2.7000e-004	0.0135	0.0000	39.7713	39.7713	1.3600e-003	1.2500e-003	40.1772
Total	**0.0178**	**0.0141**	**0.1750**	**4.3000e-004**	**0.0498**	**3.0000e-004**	**0.0501**	**0.0132**	**2.7000e-004**	**0.0135**	**0.0000**	**39.7713**	**39.7713**	**1.3600e-003**	**1.2500e-003**	**40.1772**

3.5 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	7.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	5.7000e-004	9.0000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1278
Total	**7.5600e-003**	**5.7000e-004**	**9.0000e-004**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1278**

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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 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	1.0900e-003	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2580	0.2580	1.0000e-005	1.0000e-005	0.2606
Total	**1.1000e-004**	**8.0000e-005**	**1.0900e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2580**	**0.2580**	**1.0000e-005**	**1.0000e-005**	**0.2606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	5.7000e-004	9.0000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1278
Total	**7.5600e-003**	**5.7000e-004**	**9.0000e-004**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1278**

3.5 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	1.0900e-003	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2580	0.2580	1.0000e-005	1.0000e-005	0.2606
Total	**1.1000e-004**	**8.0000e-005**	**1.0900e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2580**	**0.2580**	**1.0000e-005**	**1.0000e-005**	**0.2606**

3.6 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0124	0.1191	0.1828	2.9000e-004		5.8600e-003	5.8600e-003		5.3900e-003	5.3900e-003	0.0000	25.0332	25.0332	8.1000e-003	0.0000	25.2356
Paving	4.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.1191**	**0.1828**	**2.9000e-004**		**5.8600e-003**	**5.8600e-003**		**5.3900e-003**	**5.3900e-003**	**0.0000**	**25.0332**	**25.0332**	**8.1000e-003**	**0.0000**	**25.2356**

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3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.3000e-004	5.3100e-003	1.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.2060	1.2060	4.0000e-005	4.0000e-005	1.2183
Total	**5.4000e-004**	**4.3000e-004**	**5.3100e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.2060**	**1.2060**	**4.0000e-005**	**4.0000e-005**	**1.2183**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0124	0.1191	0.1828	2.9000e-004		5.8600e-003	5.8600e-003		5.3900e-003	5.3900e-003	0.0000	25.0331	25.0331	8.1000e-003	0.0000	25.2355
Paving	4.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0128**	**0.1191**	**0.1828**	**2.9000e-004**		**5.8600e-003**	**5.8600e-003**		**5.3900e-003**	**5.3900e-003**	**0.0000**	**25.0331**	**25.0331**	**8.1000e-003**	**0.0000**	**25.2355**

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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 - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	4.3000e-004	5.3100e-003	1.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.2060	1.2060	4.0000e-005	4.0000e-005	1.2183
Total	**5.4000e-004**	**4.3000e-004**	**5.3100e-003**	**1.0000e-005**	**1.5100e-003**	**1.0000e-005**	**1.5200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**1.2060**	**1.2060**	**4.0000e-005**	**4.0000e-005**	**1.2183**

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	tons/yr										MT/yr					
Off-Road	4.6000e-004	4.2900e-003	7.2900e-003	1.0000e-005		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	1.0010	1.0010	3.2000e-004	0.0000	1.0091
Paving	2.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8000e-004**	**4.2900e-003**	**7.2900e-003**	**1.0000e-005**		**2.1000e-004**	**2.1000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**1.0010**	**1.0010**	**3.2000e-004**	**0.0000**	**1.0091**

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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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0466	0.0466	0.0000	0.0000	0.0471
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0466**	**0.0466**	**0.0000**	**0.0000**	**0.0471**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6000e-004	4.2900e-003	7.2900e-003	1.0000e-005		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	1.0010	1.0010	3.2000e-004	0.0000	1.0091
Paving	2.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.8000e-004**	**4.2900e-003**	**7.2900e-003**	**1.0000e-005**		**2.1000e-004**	**2.1000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**1.0010**	**1.0010**	**3.2000e-004**	**0.0000**	**1.0091**

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

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0466	0.0466	0.0000	0.0000	0.0471
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0466**	**0.0466**	**0.0000**	**0.0000**	**0.0471**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	0.0493	0.8910	0.5846	4.1000e-003	0.1804	4.7300e-003	0.1852	0.0501	4.5200e-003	0.0546	0.0000	391.0283	391.0283	5.2000e-003	0.0538	407.2018
Unmitigated	0.0493	0.8910	0.5846	4.1000e-003	0.1804	4.7300e-003	0.1852	0.0501	4.5200e-003	0.0546	0.0000	391.0283	391.0283	5.2000e-003	0.0538	407.2018

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Light Industry	0.06	0.06	0.06	187	187
Manufacturing	146.95	146.95	146.95	429,017	429,017
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	147.01	147.01	147.01	429,204	429,204

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.603377	0.051886	0.141906	0.112313	0.025216	0.007131	0.012268	0.009274	0.000704	0.000491	0.027212	0.002387	0.005833
General Light Industry	0.211467	0.018185	0.049734	0.039363	0.008838	0.002499	0.198113	0.462264	0.000000	0.000000	0.009537	0.000000	0.000000
Manufacturing	0.211467	0.018185	0.049734	0.039363	0.008838	0.002499	0.198113	0.462264	0.000000	0.000000	0.009537	0.000000	0.000000
Other Non-Asphalt Surfaces	0.603377	0.051886	0.141906	0.112313	0.025216	0.007131	0.012268	0.009274	0.000704	0.000491	0.027212	0.002387	0.005833
Parking Lot	0.603377	0.051886	0.141906	0.112313	0.025216	0.007131	0.012268	0.009274	0.000704	0.000491	0.027212	0.002387	0.005833

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	-230,549.2083	-230,549.2083	-19.4591	-2.3587	-231,738.5728
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	787.7920	787.7920	0.0665	8.0600e-003	791.8561
NaturalGas Mitigated	0.0395	0.3595	0.3020	2.1600e-003		0.0273	0.0273		0.0273	0.0273	0.0000	391.3339	391.3339	7.5000e-003	7.1700e-003	393.6594
NaturalGas Unmitigated	0.0395	0.3595	0.3020	2.1600e-003		0.0273	0.0273		0.0273	0.0273	0.0000	391.3339	391.3339	7.5000e-003	7.1700e-003	393.6594

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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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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 Light Industry	896204	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8249	47.8249	9.2000e-004	8.8000e-004	48.1091
Manufacturing	6.43712e+006	0.0347	0.3155	0.2651	1.8900e-003		0.0240	0.0240		0.0240	0.0240	0.0000	343.5090	343.5090	6.5800e-003	6.3000e-003	345.5503
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0395**	**0.3595**	**0.3020**	**2.1500e-003**		**0.0273**	**0.0273**		**0.0273**	**0.0273**	**0.0000**	**391.3339**	**391.3339**	**7.5000e-003**	**7.1800e-003**	**393.6594**

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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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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 Light Industry	896204	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8249	47.8249	9.2000e-004	8.8000e-004	48.1091
Manufacturing	6.43712e+006	0.0347	0.3155	0.2651	1.8900e-003		0.0240	0.0240		0.0240	0.0240	0.0000	343.5090	343.5090	6.5800e-003	6.3000e-003	345.5503
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0395**	**0.3595**	**0.3020**	**2.1500e-003**		**0.0273**	**0.0273**		**0.0273**	**0.0273**	**0.0000**	**391.3339**	**391.3339**	**7.5000e-003**	**7.1800e-003**	**393.6594**

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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

Unmitigated

	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 Light Industry	541914	96.1060	8.1100e-003	9.8000e-004	96.6018
Manufacturing	3.89238e+006	690.2956	0.0583	7.0600e-003	693.8567
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	7840	1.3904	1.2000e-004	1.0000e-005	1.3976
Total		**787.7920**	**0.0665**	**8.0500e-003**	**791.8561**

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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

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	-2.6e+008	-46,109.8417	-3.8918	-0.4717	-46,347.7146
General Light Industry	-2.6e+008	-46,109.8417	-3.8918	-0.4717	-46,347.7146
Manufacturing	-2.6e+008	-46,109.8417	-3.8918	-0.4717	-46,347.7146
Other Non-Asphalt Surfaces	-2.6e+008	-46,109.8417	-3.8918	-0.4717	-46,347.7146
Parking Lot	-2.6e+008	-46,109.8417	-3.8918	-0.4717	-46,347.7146
Total		**-230,549.2083**	**-19.4591**	**-2.3587**	**-231,738.5728**

6.0 Area Detail

6.1 Mitigation Measures Area

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	1.7441	4.0000e-005	4.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5300e-003	8.5300e-003	2.0000e-005	0.0000	9.0800e-003
Unmitigated	1.7441	4.0000e-005	4.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5300e-003	8.5300e-003	2.0000e-005	0.0000	9.0800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6317					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5300e-003	8.5300e-003	2.0000e-005	0.0000	9.0800e-003
Total	**1.7441**	**4.0000e-005**	**4.3700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.5300e-003**	**8.5300e-003**	**2.0000e-005**	**0.0000**	**9.0800e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6317					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.3700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5300e-003	8.5300e-003	2.0000e-005	0.0000	9.0800e-003
Total	**1.7441**	**4.0000e-005**	**4.3700e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.5300e-003**	**8.5300e-003**	**2.0000e-005**	**0.0000**	**9.0800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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	260.5406	3.2052	0.0776	363.7875
Unmitigated	260.5406	3.2052	0.0776	363.7875

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.274041	0.5399	5.0000e-005	1.0000e-005	0.5427
General Light Industry	0 / 1.6295	3.2106	2.7000e-004	3.0000e-005	3.2272
Manufacturing	97.77 / 0	256.7900	3.2049	0.0775	360.0175
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**260.5406**	**3.2052**	**0.0776**	**363.7875**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.274041	0.5399	5.0000e-005	1.0000e-005	0.5427
General Light Industry	0 / 1.6295	3.2106	2.7000e-004	3.0000e-005	3.2272
Manufacturing	97.77 / 0	256.7900	3.2049	0.0775	360.0175
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**260.5406**	**3.2052**	**0.0776**	**363.7875**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, 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			
Mitigated	102.7804	6.0742	0.0000	254.6341
Unmitigated	102.7804	6.0742	0.0000	254.6341

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.02	4.0600e-003	2.4000e-004	0.0000	0.0101
General Light Industry	61.88	12.5611	0.7423	0.0000	31.1196
Manufacturing	444.43	90.2153	5.3316	0.0000	223.5045
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**102.7804**	**6.0742**	**0.0000**	**254.6341**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.02	4.0600e-003	2.4000e-004	0.0000	0.0101
General Light Industry	61.88	12.5611	0.7423	0.0000	31.1196
Manufacturing	444.43	90.2153	5.3316	0.0000	223.5045
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**102.7804**	**6.0742**	**0.0000**	**254.6341**

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

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

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA

Antelope Valley APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	49.90	1000sqft	1,136.70	49,900.00	0
Manufacturing	358.41	1000sqft	8.22	358,414.00	0
Other Non-Asphalt Surfaces	12.60	Acre	12.60	548,856.00	0
Parking Lot	56.00	Space	0.35	22,400.00	0
City Park	0.23	Acre	0.23	10,018.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Information provided by client.

Construction Phase - An estimated start date of 01/01/2024 and five days per week was provided by client. Adjusted phase durations to more realistic timeline. For architectural coating phase, assumed overlap with paving and building construction phases.

Trips and VMT -

Grading -

Architectural Coating - VOC limits from AVAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

Vehicle Trips - All areas modeled as a City Park are within the development and no vehicle trips are expected. Assumed facility will be operating Monday - Sunday, 9am - 5pm. Updated weekly trip rates to reflect employee counts and on-road truck trips data provided by client.

Fleet Mix - Adjusted Manufacturing and General Light Industry fleet mix to reflect number of employees on site and operational on-road equipment information provided by client.

Area Coating - VOC limits from AVAQMD Rule 1113. For the building, assumes 90% flat paint (50 g/L) and 10% non-flat (100 g/L). For parking lot coatings, assumed to be compliant with the Traffic Marking Coating category VOC limit of 100 g/L.

Energy Use -

Water And Wastewater - Annual water usage for hydrogen plant and PV solar array provided by client.

Construction Off-road Equipment Mitigation - Assumes that construction site will be watered 3 times per day to be in compliance with AVAQMD Rule 403.

Area Mitigation - -

Energy Mitigation - Renewable energy generation data provided by client.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	55.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	55.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	55.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	55.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	55
tblAreaCoating	Area_EF_Nonresidential_Interior	250	55
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	55
tblAreaCoating	Area_EF_Residential_Interior	250	55
tblConstructionPhase	NumDays	6,000.00	24.00
tblConstructionPhase	NumDays	15,500.00	31.00
tblConstructionPhase	NumDays	155,000.00	182.00
tblConstructionPhase	NumDays	11,000.00	150.00
tblConstructionPhase	NumDays	11,000.00	26.00
tblFleetMix	HHD	9.2740e-003	0.46
tblFleetMix	HHD	9.2740e-003	0.46
tblFleetMix	LDA	0.60	0.21

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

tblFleetMix	LDA	0.60	0.21
tblFleetMix	LDT1	0.05	0.02
tblFleetMix	LDT1	0.05	0.02
tblFleetMix	LDT2	0.14	0.05
tblFleetMix	LDT2	0.14	0.05
tblFleetMix	LHD1	0.03	8.8380e-003
tblFleetMix	LHD1	0.03	8.8380e-003
tblFleetMix	LHD2	7.1310e-003	2.4990e-003
tblFleetMix	LHD2	7.1310e-003	2.4990e-003
tblFleetMix	MCY	0.03	9.5370e-003
tblFleetMix	MCY	0.03	9.5370e-003
tblFleetMix	MDV	0.11	0.04
tblFleetMix	MDV	0.11	0.04
tblFleetMix	MH	5.8330e-003	0.00
tblFleetMix	MH	5.8330e-003	0.00
tblFleetMix	MHD	0.01	0.20
tblFleetMix	MHD	0.01	0.20
tblFleetMix	OBUS	7.0400e-004	0.00
tblFleetMix	OBUS	7.0400e-004	0.00
tblFleetMix	SBUS	2.3870e-003	0.00
tblFleetMix	SBUS	2.3870e-003	0.00
tblFleetMix	UBUS	4.9100e-004	0.00
tblFleetMix	UBUS	4.9100e-004	0.00
tblLandUse	LandUseSquareFeet	358,410.00	358,414.00
tblLandUse	LotAcreage	1.15	1,136.70
tblLandUse	LotAcreage	8.23	8.22
tblLandUse	LotAcreage	0.50	0.35
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00

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

tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	1.99	1.2845e-003
tblVehicleTrips	ST_TR	6.42	0.41
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	5.00	1.2845e-003
tblVehicleTrips	SU_TR	5.09	0.41
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	4.96	1.2845e-003
tblVehicleTrips	WD_TR	3.93	0.41
tblWater	IndoorWaterUseRate	11,539,375.00	0.00
tblWater	IndoorWaterUseRate	82,882,312.50	97,770,000.00
tblWater	OutdoorWaterUseRate	0.00	1,629,500.00

2.0 Emissions Summary

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	18.4913	32.4179	36.7812	0.0983	19.8049	1.3364	21.0351	10.1417	1.2295	11.2735	0.0000	9,883.6074	9,883.6074	1.9484	0.5625	10,070.1242
2025	16.3715	9.9068	19.3575	0.0330	0.8051	0.4745	1.2795	0.2135	0.4407	0.6542	0.0000	3,220.4563	3,220.4563	0.7498	0.0189	3,244.8297
Maximum	**18.4913**	**32.4179**	**36.7812**	**0.0983**	**19.8049**	**1.3364**	**21.0351**	**10.1417**	**1.2295**	**11.2735**	**0.0000**	**9,883.6074**	**9,883.6074**	**1.9484**	**0.5625**	**10,070.1242**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	18.4913	32.4179	36.7812	0.0983	7.8141	1.3364	9.0443	3.9792	1.2295	5.1110	0.0000	9,883.6074	9,883.6074	1.9484	0.5625	10,070.1242
2025	16.3715	9.9068	19.3575	0.0330	0.8051	0.4745	1.2795	0.2135	0.4407	0.6542	0.0000	3,220.4563	3,220.4563	0.7498	0.0189	3,244.8297
Maximum	**18.4913**	**32.4179**	**36.7812**	**0.0983**	**7.8141**	**1.3364**	**9.0443**	**3.9792**	**1.2295**	**5.1110**	**0.0000**	**9,883.6074**	**9,883.6074**	**1.9484**	**0.5625**	**10,070.1242**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	58.18	0.00	53.74	59.51	0.00	51.67	0.00	0.00	0.00	0.00	0.00	0.00

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.5591	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1044	0.1044	2.7000e-004		0.1112
Energy	0.2167	1.9697	1.6546	0.0118		0.1497	0.1497		0.1497	0.1497		2,363.6807	2,363.6807	0.0453	0.0433	2,377.7269
Mobile	0.3035	4.6427	3.2857	0.0227	1.0089	0.0260	1.0349	0.2797	0.0248	0.3045		2,388.8305	2,388.8305	0.0309	0.3252	2,486.5088
Total	**10.0793**	**6.6128**	**4.9889**	**0.0345**	**1.0089**	**0.1759**	**1.1848**	**0.2797**	**0.1747**	**0.4543**		**4,752.6156**	**4,752.6156**	**0.0764**	**0.3685**	**4,864.3469**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.5591	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1044	0.1044	2.7000e-004		0.1112
Energy	0.2167	1.9697	1.6546	0.0118		0.1497	0.1497		0.1497	0.1497		2,363.6807	2,363.6807	0.0453	0.0433	2,377.7269
Mobile	0.3035	4.6427	3.2857	0.0227	1.0089	0.0260	1.0349	0.2797	0.0248	0.3045		2,388.8305	2,388.8305	0.0309	0.3252	2,486.5088
Total	**10.0793**	**6.6128**	**4.9889**	**0.0345**	**1.0089**	**0.1759**	**1.1848**	**0.2797**	**0.1747**	**0.4543**		**4,752.6156**	**4,752.6156**	**0.0764**	**0.3685**	**4,864.3469**

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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	2/1/2024	5	24	
2	Grading	Grading	2/2/2024	3/15/2024	5	31	
3	Building Construction	Building Construction	3/16/2024	11/26/2024	5	182	
4	Architectural Coating	Architectural Coating	6/6/2024	1/1/2025	5	150	
5	Paving	Paving	11/27/2024	1/1/2025	5	26	

Acres of Grading (Site Preparation Phase): 36

Acres of Grading (Grading Phase): 93

Acres of Paving: 12.95

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 612,471; Non-Residential Outdoor: 204,157; Striped Parking Area: 34,275 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	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

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	416.00	162.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	83.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.2 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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0617	0.0368	0.5903	1.3800e-003	0.1479	8.6000e-004	0.1487	0.0392	7.9000e-004	0.0400		139.1677	139.1677	4.2200e-003	3.7300e-003	140.3837
Total	**0.0617**	**0.0368**	**0.5903**	**1.3800e-003**	**0.1479**	**8.6000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**139.1677**	**139.1677**	**4.2200e-003**	**3.7300e-003**	**140.3837**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.2 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	lb/day										lb/day					
Fugitive Dust					7.6662	0.0000	7.6662	3.9400	0.0000	3.9400			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**7.6662**	**1.2294**	**8.8956**	**3.9400**	**1.1310**	**5.0710**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0617	0.0368	0.5903	1.3800e-003	0.1479	8.6000e-004	0.1487	0.0392	7.9000e-004	0.0400		139.1677	139.1677	4.2200e-003	3.7300e-003	140.3837
Total	**0.0617**	**0.0368**	**0.5903**	**1.3800e-003**	**0.1479**	**8.6000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**139.1677**	**139.1677**	**4.2200e-003**	**3.7300e-003**	**140.3837**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.3 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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0686	0.0409	0.6559	1.5300e-003	0.1643	9.5000e-004	0.1653	0.0436	8.8000e-004	0.0445		154.6307	154.6307	4.6900e-003	4.1400e-003	155.9818
Total	**0.0686**	**0.0409**	**0.6559**	**1.5300e-003**	**0.1643**	**9.5000e-004**	**0.1653**	**0.0436**	**8.8000e-004**	**0.0445**		**154.6307**	**154.6307**	**4.6900e-003**	**4.1400e-003**	**155.9818**

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

3.3 Grading - 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	lb/day										lb/day					
Fugitive Dust					3.5894	0.0000	3.5894	1.4250	0.0000	1.4250			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.5894**	**1.3354**	**4.9248**	**1.4250**	**1.2286**	**2.6535**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0686	0.0409	0.6559	1.5300e-003	0.1643	9.5000e-004	0.1653	0.0436	8.8000e-004	0.0445		154.6307	154.6307	4.6900e-003	4.1400e-003	155.9818
Total	**0.0686**	**0.0409**	**0.6559**	**1.5300e-003**	**0.1643**	**9.5000e-004**	**0.1653**	**0.0436**	**8.8000e-004**	**0.0445**		**154.6307**	**154.6307**	**4.6900e-003**	**4.1400e-003**	**155.9818**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.4 Building Construction - 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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1898	6.1194	2.4396	0.0302	1.0975	0.0317	1.1291	0.3160	0.0303	0.3462		3,188.4240	3,188.4240	0.0185	0.4592	3,325.7253
Worker	1.4268	0.8513	13.6427	0.0318	3.4173	0.0199	3.4372	0.9064	0.0183	0.9247		3,216.3190	3,216.3190	0.0976	0.0861	3,244.4224
Total	**1.6166**	**6.9707**	**16.0823**	**0.0620**	**4.5148**	**0.0515**	**4.5663**	**1.2224**	**0.0486**	**1.2710**		**6,404.7430**	**6,404.7430**	**0.1161**	**0.5453**	**6,570.1476**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.4 Building Construction - 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	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1898	6.1194	2.4396	0.0302	1.0975	0.0317	1.1291	0.3160	0.0303	0.3462		3,188.4240	3,188.4240	0.0185	0.4592	3,325.7253
Worker	1.4268	0.8513	13.6427	0.0318	3.4173	0.0199	3.4372	0.9064	0.0183	0.9247		3,216.3190	3,216.3190	0.0976	0.0861	3,244.4224
Total	**1.6166**	**6.9707**	**16.0823**	**0.0620**	**4.5148**	**0.0515**	**4.5663**	**1.2224**	**0.0486**	**1.2710**		**6,404.7430**	**6,404.7430**	**0.1161**	**0.5453**	**6,570.1476**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.5 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.9377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**15.1185**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2847	0.1698	2.7220	6.3500e-003	0.6818	3.9600e-003	0.6858	0.1809	3.6500e-003	0.1845		641.7175	641.7175	0.0195	0.0172	647.3247
Total	**0.2847**	**0.1698**	**2.7220**	**6.3500e-003**	**0.6818**	**3.9600e-003**	**0.6858**	**0.1809**	**3.6500e-003**	**0.1845**		**641.7175**	**641.7175**	**0.0195**	**0.0172**	**647.3247**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.5 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.9377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**15.1185**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2847	0.1698	2.7220	6.3500e-003	0.6818	3.9600e-003	0.6858	0.1809	3.6500e-003	0.1845		641.7175	641.7175	0.0195	0.0172	647.3247
Total	**0.2847**	**0.1698**	**2.7220**	**6.3500e-003**	**0.6818**	**3.9600e-003**	**0.6858**	**0.1809**	**3.6500e-003**	**0.1845**		**641.7175**	**641.7175**	**0.0195**	**0.0172**	**647.3247**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.5 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	14.9377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**15.1086**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2647	0.1522	2.5157	6.1400e-003	0.6818	3.7700e-003	0.6856	0.1809	3.4700e-003	0.1843		620.1821	620.1821	0.0176	0.0160	625.3881
Total	**0.2647**	**0.1522**	**2.5157**	**6.1400e-003**	**0.6818**	**3.7700e-003**	**0.6856**	**0.1809**	**3.4700e-003**	**0.1843**		**620.1821**	**620.1821**	**0.0176**	**0.0160**	**625.3881**

3.5 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	lb/day										lb/day					
Archit. Coating	14.9377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**15.1086**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.2647	0.1522	2.5157	6.1400e-003	0.6818	3.7700e-003	0.6856	0.1809	3.4700e-003	0.1843		620.1821	620.1821	0.0176	0.0160	625.3881
Total	**0.2647**	**0.1522**	**2.5157**	**6.1400e-003**	**0.6818**	**3.7700e-003**	**0.6856**	**0.1809**	**3.4700e-003**	**0.1843**		**620.1821**	**620.1821**	**0.0176**	**0.0160**	**625.3881**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.6 Paving - 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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0234**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0515	0.0307	0.4919	1.1500e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		115.9730	115.9730	3.5200e-003	3.1100e-003	116.9864
Total	**0.0515**	**0.0307**	**0.4919**	**1.1500e-003**	**0.1232**	**7.2000e-004**	**0.1239**	**0.0327**	**6.6000e-004**	**0.0333**		**115.9730**	**115.9730**	**3.5200e-003**	**3.1100e-003**	**116.9864**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.6 Paving - 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	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0234**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0515	0.0307	0.4919	1.1500e-003	0.1232	7.2000e-004	0.1239	0.0327	6.6000e-004	0.0333		115.9730	115.9730	3.5200e-003	3.1100e-003	116.9864
Total	**0.0515**	**0.0307**	**0.4919**	**1.1500e-003**	**0.1232**	**7.2000e-004**	**0.1239**	**0.0327**	**6.6000e-004**	**0.0333**		**115.9730**	**115.9730**	**3.5200e-003**	**3.1100e-003**	**116.9864**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9504**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0478	0.0275	0.4547	1.1100e-003	0.1232	6.8000e-004	0.1239	0.0327	6.3000e-004	0.0333		112.0811	112.0811	3.1800e-003	2.8900e-003	113.0219
Total	**0.0478**	**0.0275**	**0.4547**	**1.1100e-003**	**0.1232**	**6.8000e-004**	**0.1239**	**0.0327**	**6.3000e-004**	**0.0333**		**112.0811**	**112.0811**	**3.1800e-003**	**2.8900e-003**	**113.0219**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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

3.6 Paving - 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	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0353					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9504**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0478	0.0275	0.4547	1.1100e-003	0.1232	6.8000e-004	0.1239	0.0327	6.3000e-004	0.0333		112.0811	112.0811	3.1800e-003	2.8900e-003	113.0219
Total	**0.0478**	**0.0275**	**0.4547**	**1.1100e-003**	**0.1232**	**6.8000e-004**	**0.1239**	**0.0327**	**6.3000e-004**	**0.0333**		**112.0811**	**112.0811**	**3.1800e-003**	**2.8900e-003**	**113.0219**

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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	lb/day										lb/day					
Mitigated	0.3035	4.6427	3.2857	0.0227	1.0089	0.0260	1.0349	0.2797	0.0248	0.3045		2,388.8305	2,388.8305	0.0309	0.3252	2,486.5088
Unmitigated	0.3035	4.6427	3.2857	0.0227	1.0089	0.0260	1.0349	0.2797	0.0248	0.3045		2,388.8305	2,388.8305	0.0309	0.3252	2,486.5088

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Light Industry	0.06	0.06	0.06	187	187
Manufacturing	146.95	146.95	146.95	429,017	429,017
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	147.01	147.01	147.01	429,204	429,204

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

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

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.603377	0.051886	0.141906	0.112313	0.025216	0.007131	0.012268	0.009274	0.000704	0.000491	0.027212	0.002387	0.005833
General Light Industry	0.211467	0.018185	0.049734	0.039363	0.008838	0.002499	0.198113	0.462264	0.000000	0.000000	0.009537	0.000000	0.000000
Manufacturing	0.211467	0.018185	0.049734	0.039363	0.008838	0.002499	0.198113	0.462264	0.000000	0.000000	0.009537	0.000000	0.000000
Other Non-Asphalt Surfaces	0.603377	0.051886	0.141906	0.112313	0.025216	0.007131	0.012268	0.009274	0.000704	0.000491	0.027212	0.002387	0.005833
Parking Lot	0.603377	0.051886	0.141906	0.112313	0.025216	0.007131	0.012268	0.009274	0.000704	0.000491	0.027212	0.002387	0.005833

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Percent of Electricity Use Generated with Renewable Energy

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	lb/day										lb/day					
NaturalGas Mitigated	0.2167	1.9697	1.6546	0.0118		0.1497	0.1497		0.1497	0.1497		2,363.6807	2,363.6807	0.0453	0.0433	2,377.7269
NaturalGas Unmitigated	0.2167	1.9697	1.6546	0.0118		0.1497	0.1497		0.1497	0.1497		2,363.6807	2,363.6807	0.0453	0.0433	2,377.7269

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
General Light Industry	2455.35	0.0265	0.2407	0.2022	1.4400e-003		0.0183	0.0183		0.0183	0.0183		288.8651	288.8651	5.5400e-003	5.3000e-003	290.5817
Manufacturing	17635.9	0.1902	1.7290	1.4524	0.0104		0.1314	0.1314		0.1314	0.1314		2,074.8156	2,074.8156	0.0398	0.0380	2,087.1452
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2167**	**1.9697**	**1.6546**	**0.0118**		**0.1497**	**0.1497**		**0.1497**	**0.1497**		**2,363.6807**	**2,363.6807**	**0.0453**	**0.0433**	**2,377.7269**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
General Light Industry	2.45535	0.0265	0.2407	0.2022	1.4400e-003		0.0183	0.0183		0.0183	0.0183		288.8651	288.8651	5.5400e-003	5.3000e-003	290.5817
Manufacturing	17.6359	0.1902	1.7290	1.4524	0.0104		0.1314	0.1314		0.1314	0.1314		2,074.8156	2,074.8156	0.0398	0.0380	2,087.1452
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.2167**	**1.9697**	**1.6546**	**0.0118**		**0.1497**	**0.1497**		**0.1497**	**0.1497**		**2,363.6807**	**2,363.6807**	**0.0453**	**0.0433**	**2,377.7269**

6.0 Area Detail

6.1 Mitigation Measures Area

Air Quality Study - 70th Street East, Clean Energy Site, Lancaster, CA - Antelope Valley APCD Air District, Summer

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	lb/day										lb/day					
Mitigated	9.5591	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1044	0.1044	2.7000e-004		0.1112
Unmitigated	9.5591	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1044	0.1044	2.7000e-004		0.1112

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.9408					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4700e-003	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1044	0.1044	2.7000e-004		0.1112
Total	**9.5591**	**4.4000e-004**	**0.0486**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1044**	**0.1044**	**2.7000e-004**		**0.1112**

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	lb/day										lb/day					
Architectural Coating	0.6139					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.9408					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4700e-003	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1044	0.1044	2.7000e-004		0.1112
Total	**9.5591**	**4.4000e-004**	**0.0486**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1044**	**0.1044**	**2.7000e-004**		**0.1112**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation