APPENDIX A – AIR QUALITY STUDY

Date: August 4, 2023
To: Mr. Chad Stadnicki, R.Y. Properties, Inc.
From: M. S. Hatch Consulting, LLC
Subject: Air Quality Study – Tentative Tract Map (TTM) 83674 Housing Development – Palmdale, CA

M. S. Hatch Consulting, LLC (MSHC) appreciates the opportunity to prepare the air quality study for the proposed construction and operation of the TTM 83674 housing development for R.Y. Properties, Inc (R.Y.). The project consists of 239 single family homes on approximately 59.13[1] acres in the City of Palmdale. 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 housing development to the significant emission thresholds 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 for each year of construction and the total operational emissions **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.[2] 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)	0.21	2.23	1.73	0.00	0.46	0.24	417
Year 2 Construction Emissions (2025)	0.40	2.85	4.41	0.01	0.92	0.30	1,280
Year 3 Construction Emissions (2026)	0.50	3.45	5.38	0.02	1.23	0.39	1,728

[1] Total acreage of the proposed project (59.13 acres) was provided by R.Y. via email on 8/1/2023.
[2] 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.

Emissions Source	Total Emissions (tons per year)						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e (MT/year)
Year 4 Construction Emissions (2027)	0.48	3.42	5.21	0.02	1.23	0.39	1,696
Year 5 Construction Emissions (2028)	0.78	3.41	5.16	0.02	1.25	0.39	1,686
Year 6 Construction Emissions (2029)	1.55	2.18	3.45	0.01	0.87	0.27	1,105
Total Operational Emissions	2.93	1.65	11.34	0.02	2.45	0.70	3,081
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

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)	3.37	36.38	29.44	0.08	9.04	5.11	8,324
Year 2 Construction Emissions (2025)	4.39	31.91	46.15	0.15	9.60	3.02	15,386
Year 3 Construction Emissions (2026)	4.21	25.64	44.36	0.14	9.60	3.02	15,101
Year 4 Construction Emissions (2027)	4.04	25.43	42.82	0.14	9.60	3.01	14,822
Year 5 Construction Emissions (2028)	19.91	26.63	47.51	0.15	11.02	3.43	16,052
Year 6 Construction Emissions (2029)	19.74	26.47	46.17	0.15	11.01	3.43	15,796
Total Operational Emissions	**17.94**	**11.82**	**77.93**	**0.15**	**14.32**	**4.28**	**19,951**
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 239 single family homes, open space, and residential streets on approximately 59.13 acres. The project site is located at the northwest corner of Rancho Vista Boulevard and Tilbury Drive in the City of Palmdale. The site location is included in Figure 1 and the proposed site plans are included in Figure 2.

Figure 1. Regional Vicinity

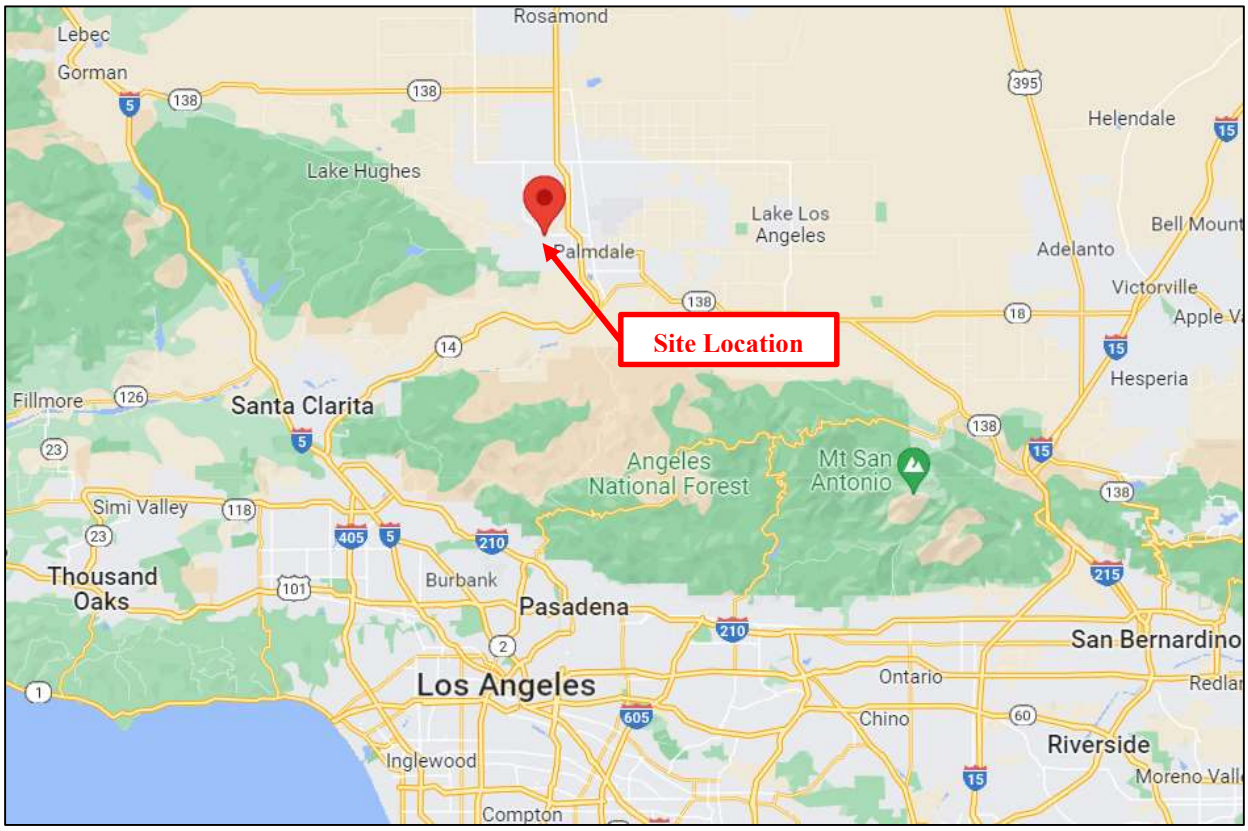
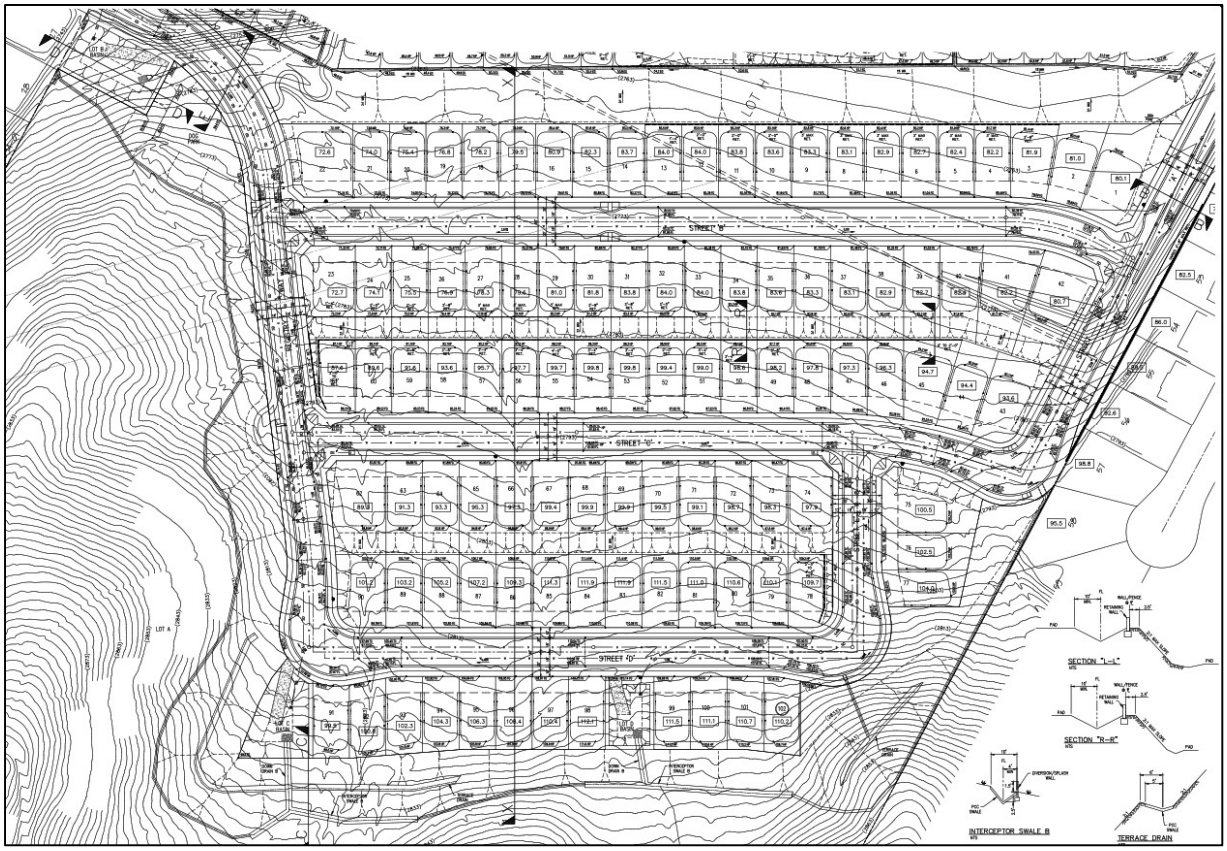


Figure 2. Site Plans – Proposed Development – Palmdale, CA



Sources of Emissions

The emissions associated with the proposed project consist of construction and operational emissions from the housing 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 the application of 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)	0.21	2.23	1.73	0.00	0.46	0.24	417
Year 2 Construction Emissions (2025)	0.40	2.85	4.41	0.01	0.92	0.30	1,280
Year 3 Construction Emissions (2026)	0.50	3.45	5.38	0.02	1.23	0.39	1,728
Year 4 Construction Emissions (2027)	0.48	3.42	5.21	0.02	1.23	0.39	1,696
Year 5 Construction Emissions (2028)	0.78	3.41	5.16	0.02	1.25	0.39	1,686
Year 6 Construction Emissions (2029)	1.55	2.18	3.45	0.01	0.87	0.27	1,105
Operational Emissions							
Area Sources	1.95	0.18	1.84	0.00	0.02	0.02	192
Energy	0.03	0.28	0.12	0.00	0.02	0.02	662
Mobile	0.95	1.18	9.38	0.02	2.40	0.65	1,936
Waste	N/A	N/A	N/A	N/A	0.00	0.00	142
Water	N/A	N/A	N/A	N/A	0.00	0.00	149
Total Operational Emissions	**2.93**	**1.65**	**11.34**	**0.02**	**2.45**	**0.70**	**3,081**
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

Table 4. Daily Construction and Operational Emissions Summary

Emissions Source	Total Emissions (pounds per day)						
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2e
Construction Emissions							
Year 1 Construction Emissions (2024)	3.37	36.38	29.44	0.08	9.04	5.11	8,324
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Year 6 Construction Emissions (2029)	19.74	26.47	46.17	0.15	11.01	3.43	15,796
Operational Emissions							
Area Sources	11.33	4.19	21.36	0.03	0.43	0.43	5,128
Energy	0.18	1.54	0.65	0.01	0.12	0.12	1,975
Mobile	6.43	6.09	55.92	0.12	13.77	3.73	12,848
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	**17.94**	**11.82**	**77.93**	**0.15**	**14.32**	**4.28**	**19,951**
Significant Emissions Threshold	**137**	**137**	**548**	**137**	**82**	**65**	**548,000**

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Emissions Calculation Methodology

Construction and operational emissions were based on four CalEEMod land use types*: Single Family Housing, City Park, Other Asphalt Surfaces,* 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: Single Family Housing

The *Single Family Housing* land use type was used to model the emissions associated with the proposed housing development. The number of homes (239) and total building footprint (18.38 acres) was provided by R.Y.

CalEEMod Land Use Type: City Park

The *City Park* land use type was used to model the emissions associated with any open space, unincorporated area, and landscaping within the proposed housing development. The total acreage (30.65 acres) was provided by R.Y.

CalEEMod Land Use Type: Other Asphalt Surfaces

The *Other Asphalt Surfaces* land use type was used to model the emissions associated with the residential streets within the proposed housing development. The street acreage (6.92 acres) was provided by R.Y.

CalEEMod Land Use Type: Other Non-Asphalt Surfaces

The *Other Non-Asphalt Surfaces* land use type was used to model the emissions associated with the concrete sidewalks, curbs, and gutters within the proposed housing development. The total acreage (3.18 acres)[3] was provided by R.Y.

Construction Emissions

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

Table 5 provides the anticipated construction schedule. R.Y. provided the proposed start date (7/1/2024) and indicated that work would be conducted five days per week. Based on the review of other housing developments being constructed, the schedule was adjusted to have the *Paving* phase conducted prior to the *Building Construction* phase. In addition, the *Architectural Coating* phase was extended to match a more realistic timeline for this size development, and it was assumed that the *Architectural Coating* phase would overlap with the end of the *Building Construction* phase. The durations for the *Site Preparation*, *Grading*, *Paving,* and *Building Construction* phases are based on CalEEMod default values.

[3] R.Y. provided the following individual land use quantities for Other Non-Asphalt Surfaces: 36,208 square feet of curb and gutter; 7,887 square feet of cross gutter; and 94,588 square feet of sidewalk. A conversion factor of 43,560 square feet per acre was used to convert the square footage to acres.

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 based on CalEEMod default values.

Based on input from R.Y., this project will require 30,621 cubic yards of material export during the *Grading* phase; as such, the emissions for material haul trips were 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 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.[4]

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	7/1/2024	8/23/2024	5	40
Grading	8/24/2024	1/24/2025	5	110
Paving	1/25/2025	5/9/2025	5	75
Building Construction	5/10/2025	8/10/2029	5	1,110
Architectural Coating	11/4/2028	8/10/2029	5	200

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

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

Table 6. Construction Equipment

Construction Phase	Equipment	Number of Equipment	Hours per day	Horsepower
Paving	Pavers	2	8	130
Paving	Paving Equipment	2	8	132
Paving	Rollers	2	8	80
Architectural Coating	Air Compressors	1	6	78

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).

For area-source emissions, it was determined that woodstoves would not be installed, and every home would have a natural gas fireplace. For mobile emissions, it was assumed that there would not be any external vehicle trips to the housing development's open space modeled under the *City Park* land use type.

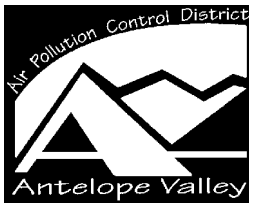
For architectural coating operations (i.e., re-applying coatings), VOC emissions were calculated based on the assumption that the coatings would be compliant with the VOC content limits of AVAQMD Rule 1113.[5] All other operational emissions sources were calculated using CalEEMod default factors.

Findings

The estimated emissions of criteria pollutants and greenhouse gases for each year of 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.

[5] 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.

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

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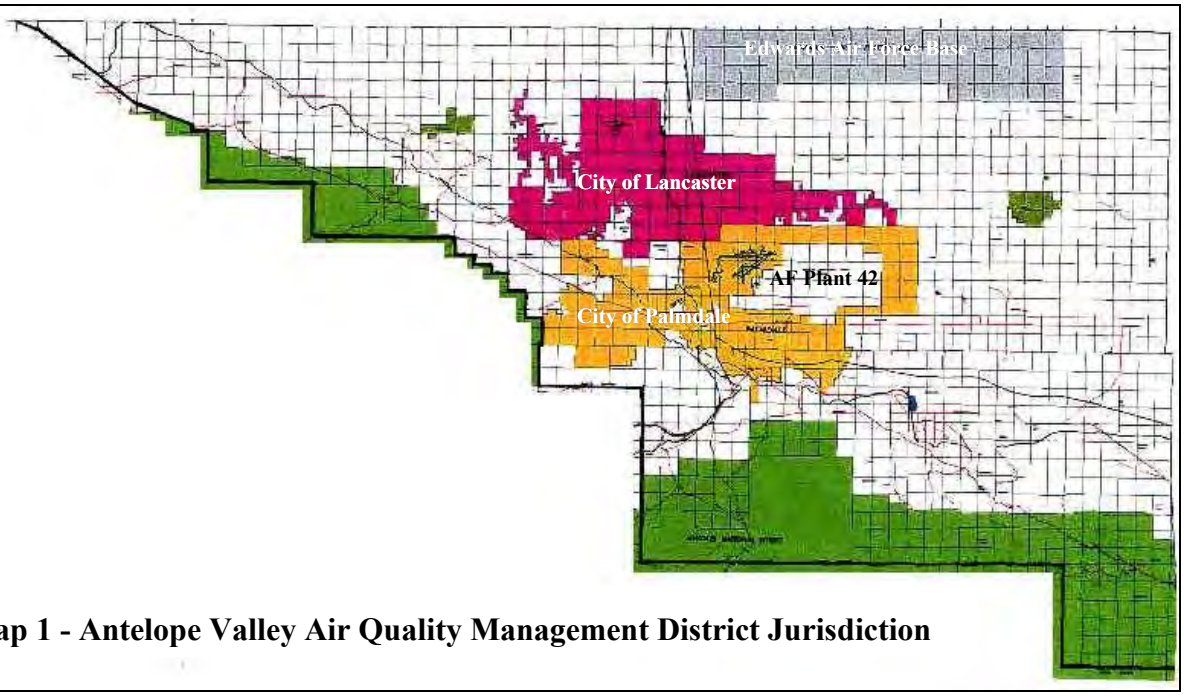
Background

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Air Quality Study - TTM 83674 Housing Development, Palmdale, 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
Other Asphalt Surfaces	6.92	Acre	6.92	301,435.20	0
Other Non-Asphalt Surfaces	3.18	Acre	3.18	138,520.80	0
City Park	30.65	Acre	30.65	1,335,114.00	0
Single Family Housing	239.00	Dwelling Unit	18.38	430,200.00	684

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2030
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 07/01/2024 and five days per week was provided by client. Since project is a housing development, assumed all paving was conducted prior to building construction. For architectural coating phase, extended number of days to more realistic timeline and assumed overlap with end of building construction phase.

Grading - Material export for grading phase provided by client on data request form.

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.

Vehicle Trips - All areas modeled as City Park are within the housing development and no vehicle trips are expected.

Woodstoves - Based on client input, no woodstoves will be installed and each home will have a gas fireplace.

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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.

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 - -

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	75.00	200.00
tblConstructionPhase	PhaseEndDate	8/10/2029	5/9/2025
tblConstructionPhase	PhaseEndDate	4/27/2029	8/10/2029
tblConstructionPhase	PhaseEndDate	11/23/2029	8/10/2029
tblConstructionPhase	PhaseStartDate	4/28/2029	1/25/2025
tblConstructionPhase	PhaseStartDate	1/25/2025	5/10/2025
tblConstructionPhase	PhaseStartDate	8/11/2029	11/4/2028
tblFireplaces	NumberGas	131.45	239.00
tblFireplaces	NumberNoFireplace	23.90	0.00
tblFireplaces	NumberWood	83.65	0.00
tblGrading	MaterialExported	0.00	30,621.00
tblLandUse	LotAcreage	77.60	18.38
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 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	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	11.95	0.00
tblWoodstoves	NumberNoncatalytic	11.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.2085	2.2288	1.7274	4.5800e-003	0.8847	0.0873	0.9720	0.3838	0.0804	0.4642	0.0000	410.1110	410.1110	0.1036	0.0135	416.7126
2025	0.4042	2.8540	4.4064	0.0135	0.9820	0.0789	1.0609	0.2526	0.0737	0.3262	0.0000	1,252.4583	1,252.4583	0.1028	0.0826	1,279.6537
2026	0.4956	3.4493	5.3835	0.0180	1.1493	0.0816	1.2308	0.3116	0.0768	0.3884	0.0000	1,689.4543	1,689.4543	0.0949	0.1206	1,727.7589
2027	0.4773	3.4193	5.2124	0.0177	1.1493	0.0812	1.2305	0.3116	0.0765	0.3881	0.0000	1,658.9037	1,658.9037	0.0931	0.1171	1,696.1137
2028	0.7777	3.4096	5.1581	0.0175	1.1716	0.0818	1.2534	0.3175	0.0770	0.3945	0.0000	1,649.3914	1,649.3914	0.0920	0.1139	1,685.6249
2029	1.5467	2.1784	3.4500	0.0115	0.8115	0.0540	0.8655	0.2194	0.0511	0.2705	0.0000	1,082.5531	1,082.5531	0.0583	0.0700	1,104.8562
Maximum	**1.5467**	**3.4493**	**5.3835**	**0.0180**	**1.1716**	**0.0873**	**1.2534**	**0.3838**	**0.0804**	**0.4642**	**0.0000**	**1,689.4543**	**1,689.4543**	**0.1036**	**0.1206**	**1,727.7589**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

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	0.2085	2.2288	1.7274	4.5800e-003	0.3681	0.0873	0.4554	0.1560	0.0804	0.2363	0.0000	410.1106	410.1106	0.1036	0.0135	416.7122
2025	0.4042	2.8540	4.4063	0.0135	0.8412	0.0789	0.9200	0.2227	0.0737	0.2964	0.0000	1,252.4580	1,252.4580	0.1028	0.0826	1,279.6533
2026	0.4956	3.4493	5.3835	0.0180	1.1493	0.0816	1.2308	0.3116	0.0768	0.3884	0.0000	1,689.4540	1,689.4540	0.0949	0.1206	1,727.7585
2027	0.4773	3.4193	5.2124	0.0177	1.1493	0.0812	1.2305	0.3116	0.0765	0.3881	0.0000	1,658.9033	1,658.9033	0.0931	0.1171	1,696.1133
2028	0.7777	3.4096	5.1581	0.0175	1.1716	0.0818	1.2534	0.3175	0.0770	0.3945	0.0000	1,649.3910	1,649.3910	0.0920	0.1139	1,685.6245
2029	1.5467	2.1784	3.4500	0.0115	0.8115	0.0540	0.8655	0.2194	0.0511	0.2705	0.0000	1,082.5528	1,082.5528	0.0583	0.0700	1,104.8559
Maximum	**1.5467**	**3.4493**	**5.3835**	**0.0180**	**1.1716**	**0.0873**	**1.2534**	**0.3175**	**0.0804**	**0.3945**	**0.0000**	**1,689.4540**	**1,689.4540**	**0.1036**	**0.1206**	**1,727.7585**

	ROG	NOx	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**	**10.69**	**0.00**	**9.94**	**14.34**	**0.00**	**11.55**	**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	**7-1-2024**	**9-30-2024**	1.1168	1.1168
2	**10-1-2024**	**12-31-2024**	1.3131	1.3131
3	**1-1-2025**	**3-31-2025**	0.5327	0.5327
4	**4-1-2025**	**6-30-2025**	0.6987	0.6987
5	**7-1-2025**	**9-30-2025**	0.9943	0.9943

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6	**10-1-2025**	**12-31-2025**	1.0103	1.0103
7	**1-1-2026**	**3-31-2026**	0.9754	0.9754
8	**4-1-2026**	**6-30-2026**	0.9700	0.9700
9	**7-1-2026**	**9-30-2026**	0.9807	0.9807
10	**10-1-2026**	**12-31-2026**	0.9971	0.9971
11	**1-1-2027**	**3-31-2027**	0.9636	0.9636
12	**4-1-2027**	**6-30-2027**	0.9578	0.9578
13	**7-1-2027**	**9-30-2027**	0.9684	0.9684
14	**10-1-2027**	**12-31-2027**	0.9850	0.9850
15	**1-1-2028**	**3-31-2028**	0.9640	0.9640
16	**4-1-2028**	**6-30-2028**	0.9473	0.9473
17	**7-1-2028**	**9-30-2028**	0.9577	0.9577
18	**10-1-2028**	**12-31-2028**	1.3343	1.3343
19	**1-1-2029**	**3-31-2029**	1.5010	1.5010
20	**4-1-2029**	**6-30-2029**	1.5016	1.5016
21	**7-1-2029**	**9-30-2029**	0.6766	0.6766
		Highest	1.5016	1.5016

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
Area	1.9473	0.1830	1.8395	1.1300e-003		0.0230	0.0230		0.0230	0.0230	0.0000	191.1478	191.1478	6.3700e-003	3.4500e-003	192.3356
Energy	0.0329	0.2807	0.1195	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	658.1881	658.1881	0.0343	9.3700e-003	661.8384
Mobile	0.9537	1.1834	9.3825	0.0195	2.3886	0.0144	2.4029	0.6388	0.0134	0.6522	0.0000	1,906.2105	1,906.2105	0.1254	0.0879	1,935.5419
Waste						0.0000	0.0000		0.0000	0.0000	57.4627	0.0000	57.4627	3.3960	0.0000	142.3614
Water						0.0000	0.0000		0.0000	0.0000	4.9402	127.2548	132.1950	0.5182	0.0133	149.1070
Total	**2.9338**	**1.6471**	**11.3414**	**0.0224**	**2.3886**	**0.0600**	**2.4486**	**0.6388**	**0.0591**	**0.6978**	**62.4029**	**2,882.8011**	**2,945.2040**	**4.0802**	**0.1140**	**3,081.1842**

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	1.9473	0.1830	1.8395	1.1300e-003		0.0230	0.0230		0.0230	0.0230	0.0000	191.1478	191.1478	6.3700e-003	3.4500e-003	192.3356
Energy	0.0329	0.2807	0.1195	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	658.1881	658.1881	0.0343	9.3700e-003	661.8384
Mobile	0.9537	1.1834	9.3825	0.0195	2.3886	0.0144	2.4029	0.6388	0.0134	0.6522	0.0000	1,906.2105	1,906.2105	0.1254	0.0879	1,935.5419
Waste						0.0000	0.0000		0.0000	0.0000	57.4627	0.0000	57.4627	3.3960	0.0000	142.3614
Water						0.0000	0.0000		0.0000	0.0000	4.9402	127.2548	132.1950	0.5182	0.0133	149.1070
Total	**2.9338**	**1.6471**	**11.3414**	**0.0224**	**2.3886**	**0.0600**	**2.4486**	**0.6388**	**0.0591**	**0.6978**	**62.4029**	**2,882.8011**	**2,945.2040**	**4.0802**	**0.1140**	**3,081.1842**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2024	8/23/2024	5	40	
2	Grading	Grading	8/24/2024	1/24/2025	5	110	
3	Building Construction	Building Construction	5/10/2025	8/10/2029	5	1110	

4	Paving	Paving	1/25/2025	5/9/2025	5	75	
5	Architectural Coating	Architectural Coating	11/4/2028	8/10/2029	5	200	

Acres of Grading (Site Preparation Phase): 60

Acres of Grading (Grading Phase): 330

Acres of Paving: 10.1

Residential Indoor: 871,155; Residential Outdoor: 290,385; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 26,397 (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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3,828.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	832.00	316.00	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
Architectural Coating	1	166.00	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					0.3931	0.0000	0.3931	0.2021	0.0000	0.2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5435	0.3667	7.6000e-004		0.0246	0.0246		0.0226	0.0226	0.0000	66.9141	66.9141	0.0216	0.0000	67.4552
Total	**0.0532**	**0.5435**	**0.3667**	**7.6000e-004**	**0.3931**	**0.0246**	**0.4177**	**0.2021**	**0.0226**	**0.2247**	**0.0000**	**66.9141**	**66.9141**	**0.0216**	**0.0000**	**67.4552**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.0400e-003	8.2000e-004	0.0102	3.0000e-005	2.9000e-003	2.0000e-005	2.9200e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.3632	2.3632	8.0000e-005	7.0000e-005	2.3868
Total	**1.0400e-003**	**8.2000e-004**	**0.0102**	**3.0000e-005**	**2.9000e-003**	**2.0000e-005**	**2.9200e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.3632**	**2.3632**	**8.0000e-005**	**7.0000e-005**	**2.3868**

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					0.1533	0.0000	0.1533	0.0788	0.0000	0.0788	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5435	0.3667	7.6000e-004		0.0246	0.0246		0.0226	0.0226	0.0000	66.9141	66.9141	0.0216	0.0000	67.4551
Total	**0.0532**	**0.5435**	**0.3667**	**7.6000e-004**	**0.1533**	**0.0246**	**0.1779**	**0.0788**	**0.0226**	**0.1014**	**0.0000**	**66.9141**	**66.9141**	**0.0216**	**0.0000**	**67.4551**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.0400e-003	8.2000e-004	0.0102	3.0000e-005	2.9000e-003	2.0000e-005	2.9200e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.3632	2.3632	8.0000e-005	7.0000e-005	2.3868
Total	**1.0400e-003**	**8.2000e-004**	**0.0102**	**3.0000e-005**	**2.9000e-003**	**2.0000e-005**	**2.9200e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.3632**	**2.3632**	**8.0000e-005**	**7.0000e-005**	**2.3868**

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					0.4537	0.0000	0.4537	0.1714	0.0000	0.1714	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1480	1.4893	1.2753	2.8600e-003		0.0614	0.0614		0.0565	0.0565	0.0000	250.7898	250.7898	0.0811	0.0000	252.8176
Total	**0.1480**	**1.4893**	**1.2753**	**2.8600e-003**	**0.4537**	**0.0614**	**0.5152**	**0.1714**	**0.0565**	**0.2279**	**0.0000**	**250.7898**	**250.7898**	**0.0811**	**0.0000**	**252.8176**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.5900e-003	0.1930	0.0491	8.7000e-004	0.0275	1.2500e-003	0.0288	7.5600e-003	1.1900e-003	8.7500e-003	0.0000	84.0047	84.0047	5.3000e-004	0.0132	87.9535
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	2.6600e-003	2.1000e-003	0.0262	6.0000e-005	7.4100e-003	4.0000e-005	7.4500e-003	1.9700e-003	4.0000e-005	2.0100e-003	0.0000	6.0392	6.0392	2.0000e-004	1.9000e-004	6.0996
Total	**6.2500e-003**	**0.1951**	**0.0752**	**9.3000e-004**	**0.0349**	**1.2900e-003**	**0.0362**	**9.5300e-003**	**1.2300e-003**	**0.0108**	**0.0000**	**90.0439**	**90.0439**	**7.3000e-004**	**0.0134**	**94.0531**

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					0.1770	0.0000	0.1770	0.0669	0.0000	0.0669	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1480	1.4893	1.2753	2.8600e-003		0.0614	0.0614		0.0565	0.0565	0.0000	250.7895	250.7895	0.0811	0.0000	252.8173
Total	**0.1480**	**1.4893**	**1.2753**	**2.8600e-003**	**0.1770**	**0.0614**	**0.2384**	**0.0669**	**0.0565**	**0.1234**	**0.0000**	**250.7895**	**250.7895**	**0.0811**	**0.0000**	**252.8173**

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	3.5900e-003	0.1930	0.0491	8.7000e-004	0.0275	1.2500e-003	0.0288	7.5600e-003	1.1900e-003	8.7500e-003	0.0000	84.0047	84.0047	5.3000e-004	0.0132	87.9535
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	2.6600e-003	2.1000e-003	0.0262	6.0000e-005	7.4100e-003	4.0000e-005	7.4500e-003	1.9700e-003	4.0000e-005	2.0100e-003	0.0000	6.0392	6.0392	2.0000e-004	1.9000e-004	6.0996
Total	**6.2500e-003**	**0.1951**	**0.0752**	**9.3000e-004**	**0.0349**	**1.2900e-003**	**0.0362**	**9.5300e-003**	**1.2300e-003**	**0.0108**	**0.0000**	**90.0439**	**90.0439**	**7.3000e-004**	**0.0134**	**94.0531**

3.3 Grading - 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					
Fugitive Dust					0.2309	0.0000	0.2309	0.0490	0.0000	0.0490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0261	0.2515	0.2370	5.6000e-004		0.0102	0.0102		9.3600e-003	9.3600e-003	0.0000	49.0556	49.0556	0.0159	0.0000	49.4522
Total	**0.0261**	**0.2515**	**0.2370**	**5.6000e-004**	**0.2309**	**0.0102**	**0.2411**	**0.0490**	**9.3600e-003**	**0.0583**	**0.0000**	**49.0556**	**49.0556**	**0.0159**	**0.0000**	**49.4522**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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	7.0000e-004	0.0375	9.6300e-003	1.7000e-004	5.3900e-003	2.4000e-004	5.6300e-003	1.4800e-003	2.3000e-004	1.7100e-003	0.0000	16.0440	16.0440	1.0000e-004	2.5200e-003	16.7982
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.7000e-004	4.7500e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1535	1.1535	4.0000e-005	3.0000e-005	1.1645
Total	**1.1800e-003**	**0.0378**	**0.0144**	**1.8000e-004**	**6.8400e-003**	**2.5000e-004**	**7.0900e-003**	**1.8700e-003**	**2.4000e-004**	**2.1000e-003**	**0.0000**	**17.1975**	**17.1975**	**1.4000e-004**	**2.5500e-003**	**17.9627**

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					0.0901	0.0000	0.0901	0.0191	0.0000	0.0191	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0261	0.2515	0.2370	5.6000e-004		0.0102	0.0102		9.3600e-003	9.3600e-003	0.0000	49.0555	49.0555	0.0159	0.0000	49.4522
Total	**0.0261**	**0.2515**	**0.2370**	**5.6000e-004**	**0.0901**	**0.0102**	**0.1002**	**0.0191**	**9.3600e-003**	**0.0285**	**0.0000**	**49.0555**	**49.0555**	**0.0159**	**0.0000**	**49.4522**

3.3 Grading - 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	7.0000e-004	0.0375	9.6300e-003	1.7000e-004	5.3900e-003	2.4000e-004	5.6300e-003	1.4800e-003	2.3000e-004	1.7100e-003	0.0000	16.0440	16.0440	1.0000e-004	2.5200e-003	16.7982
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.7000e-004	4.7500e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1535	1.1535	4.0000e-005	3.0000e-005	1.1645
Total	**1.1800e-003**	**0.0378**	**0.0144**	**1.8000e-004**	**6.8400e-003**	**2.5000e-004**	**7.0900e-003**	**1.8700e-003**	**2.4000e-004**	**2.1000e-003**	**0.0000**	**17.1975**	**17.1975**	**1.4000e-004**	**2.5500e-003**	**17.9627**

3.4 Building Construction - 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	0.1149	1.0475	1.3511	2.2600e-003		0.0443	0.0443		0.0417	0.0417	0.0000	194.8123	194.8123	0.0458	0.0000	195.9572
Total	**0.1149**	**1.0475**	**1.3511**	**2.2600e-003**		**0.0443**	**0.0443**		**0.0417**	**0.0417**	**0.0000**	**194.8123**	**194.8123**	**0.0458**	**0.0000**	**195.9572**

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3.4 Building Construction - 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	0.0294	1.0511	0.3988	4.8600e-003	0.1769	5.1800e-003	0.1821	0.0511	4.9600e-003	0.0560	0.0000	464.8421	464.8421	2.6400e-003	0.0669	484.8312
Worker	0.1878	0.1431	1.8436	4.7400e-003	0.5628	3.2000e-003	0.5660	0.1495	2.9400e-003	0.1525	0.0000	447.8739	447.8739	0.0140	0.0131	452.1322
Total	**0.2171**	**1.1942**	**2.2424**	**9.6000e-003**	**0.7398**	**8.3800e-003**	**0.7481**	**0.2006**	**7.9000e-003**	**0.2085**	**0.0000**	**912.7160**	**912.7160**	**0.0166**	**0.0800**	**936.9634**

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	0.1149	1.0475	1.3511	2.2600e-003		0.0443	0.0443		0.0417	0.0417	0.0000	194.8121	194.8121	0.0458	0.0000	195.9570
Total	**0.1149**	**1.0475**	**1.3511**	**2.2600e-003**		**0.0443**	**0.0443**		**0.0417**	**0.0417**	**0.0000**	**194.8121**	**194.8121**	**0.0458**	**0.0000**	**195.9570**

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3.4 Building Construction - 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	0.0294	1.0511	0.3988	4.8600e-003	0.1769	5.1800e-003	0.1821	0.0511	4.9600e-003	0.0560	0.0000	464.8421	464.8421	2.6400e-003	0.0669	484.8312
Worker	0.1878	0.1431	1.8436	4.7400e-003	0.5628	3.2000e-003	0.5660	0.1495	2.9400e-003	0.1525	0.0000	447.8739	447.8739	0.0140	0.0131	452.1322
Total	**0.2171**	**1.1942**	**2.2424**	**9.6000e-003**	**0.7398**	**8.3800e-003**	**0.7481**	**0.2006**	**7.9000e-003**	**0.2085**	**0.0000**	**912.7160**	**912.7160**	**0.0166**	**0.0800**	**936.9634**

3.4 Building Construction - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

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	0.0449	1.6212	0.6111	7.3900e-003	0.2749	7.9900e-003	0.2829	0.0793	7.6500e-003	0.0870	0.0000	707.0543	707.0543	4.0400e-003	0.1015	737.3944
Worker	0.2723	0.2008	2.6734	7.1300e-003	0.8744	4.7300e-003	0.8791	0.2323	4.3500e-003	0.2366	0.0000	679.7452	679.7452	0.0197	0.0191	685.9310
Total	**0.3172**	**1.8220**	**3.2845**	**0.0145**	**1.1493**	**0.0127**	**1.1620**	**0.3116**	**0.0120**	**0.3236**	**0.0000**	**1,386.7994**	**1,386.7994**	**0.0238**	**0.1206**	**1,423.3254**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

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	0.0449	1.6212	0.6111	7.3900e-003	0.2749	7.9900e-003	0.2829	0.0793	7.6500e-003	0.0870	0.0000	707.0543	707.0543	4.0400e-003	0.1015	737.3944
Worker	0.2723	0.2008	2.6734	7.1300e-003	0.8744	4.7300e-003	0.8791	0.2323	4.3500e-003	0.2366	0.0000	679.7452	679.7452	0.0197	0.0191	685.9310
Total	**0.3172**	**1.8220**	**3.2845**	**0.0145**	**1.1493**	**0.0127**	**1.1620**	**0.3116**	**0.0120**	**0.3236**	**0.0000**	**1,386.7994**	**1,386.7994**	**0.0238**	**0.1206**	**1,423.3254**

3.4 Building Construction - 2027

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2027

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	0.0444	1.6096	0.6044	7.2200e-003	0.2749	7.9300e-003	0.2828	0.0793	7.5900e-003	0.0869	0.0000	691.2112	691.2112	3.9700e-003	0.0990	720.8237
Worker	0.2545	0.1824	2.5090	6.9300e-003	0.8744	4.4600e-003	0.8789	0.2323	4.1100e-003	0.2364	0.0000	665.0376	665.0376	0.0180	0.0180	670.8565
Total	**0.2989**	**1.7920**	**3.1134**	**0.0142**	**1.1493**	**0.0124**	**1.1617**	**0.3116**	**0.0117**	**0.3233**	**0.0000**	**1,356.2488**	**1,356.2488**	**0.0220**	**0.1171**	**1,391.6802**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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3.4 Building Construction - 2027

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	0.0444	1.6096	0.6044	7.2200e-003	0.2749	7.9300e-003	0.2828	0.0793	7.5900e-003	0.0869	0.0000	691.2112	691.2112	3.9700e-003	0.0990	720.8237
Worker	0.2545	0.1824	2.5090	6.9300e-003	0.8744	4.4600e-003	0.8789	0.2323	4.1100e-003	0.2364	0.0000	665.0376	665.0376	0.0180	0.0180	670.8565
Total	**0.2989**	**1.7920**	**3.1134**	**0.0142**	**1.1493**	**0.0124**	**1.1617**	**0.3116**	**0.0117**	**0.3233**	**0.0000**	**1,356.2488**	**1,356.2488**	**0.0220**	**0.1171**	**1,391.6802**

3.4 Building Construction - 2028

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	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2028

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	0.0438	1.5947	0.5972	7.0400e-003	0.2738	7.8500e-003	0.2817	0.0790	7.5100e-003	0.0865	0.0000	673.4595	673.4595	3.9300e-003	0.0963	702.2609
Worker	0.2371	0.1659	2.3612	6.7100e-003	0.8711	4.1700e-003	0.8752	0.2314	3.8400e-003	0.2352	0.0000	649.3967	649.3967	0.0164	0.0170	654.8817
Total	**0.2809**	**1.7606**	**2.9584**	**0.0138**	**1.1449**	**0.0120**	**1.1569**	**0.3104**	**0.0114**	**0.3218**	**0.0000**	**1,322.8562**	**1,322.8562**	**0.0204**	**0.1134**	**1,357.1425**

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	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2028

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	0.0438	1.5947	0.5972	7.0400e-003	0.2738	7.8500e-003	0.2817	0.0790	7.5100e-003	0.0865	0.0000	673.4595	673.4595	3.9300e-003	0.0963	702.2609
Worker	0.2371	0.1659	2.3612	6.7100e-003	0.8711	4.1700e-003	0.8752	0.2314	3.8400e-003	0.2352	0.0000	649.3967	649.3967	0.0164	0.0170	654.8817
Total	**0.2809**	**1.7606**	**2.9584**	**0.0138**	**1.1449**	**0.0120**	**1.1569**	**0.3104**	**0.0114**	**0.3218**	**0.0000**	**1,322.8562**	**1,322.8562**	**0.0204**	**0.1134**	**1,357.1425**

3.4 Building Construction - 2029

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	0.1094	0.9976	1.2868	2.1600e-003		0.0422	0.0422		0.0397	0.0397	0.0000	185.5356	185.5356	0.0436	0.0000	186.6259
Total	**0.1094**	**0.9976**	**1.2868**	**2.1600e-003**		**0.0422**	**0.0422**		**0.0397**	**0.0397**	**0.0000**	**185.5356**	**185.5356**	**0.0436**	**0.0000**	**186.6259**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2029

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	0.0267	0.9768	0.3650	4.2400e-003	0.1685	4.8100e-003	0.1733	0.0486	4.6000e-003	0.0532	0.0000	405.9297	405.9297	2.4000e-003	0.0580	423.2636
Worker	0.1364	0.0937	1.3785	4.0300e-003	0.5360	2.4100e-003	0.5384	0.1424	2.2200e-003	0.1446	0.0000	392.3754	392.3754	9.3000e-003	9.9900e-003	395.5858
Total	**0.1630**	**1.0705**	**1.7434**	**8.2700e-003**	**0.7045**	**7.2200e-003**	**0.7118**	**0.1910**	**6.8200e-003**	**0.1978**	**0.0000**	**798.3051**	**798.3051**	**0.0117**	**0.0680**	**818.8494**

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	0.1094	0.9976	1.2868	2.1600e-003		0.0422	0.0422		0.0397	0.0397	0.0000	185.5353	185.5353	0.0436	0.0000	186.6257
Total	**0.1094**	**0.9976**	**1.2868**	**2.1600e-003**		**0.0422**	**0.0422**		**0.0397**	**0.0397**	**0.0000**	**185.5353**	**185.5353**	**0.0436**	**0.0000**	**186.6257**

3.4 Building Construction - 2029

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	0.0267	0.9768	0.3650	4.2400e-003	0.1685	4.8100e-003	0.1733	0.0486	4.6000e-003	0.0532	0.0000	405.9297	405.9297	2.4000e-003	0.0580	423.2636
Worker	0.1364	0.0937	1.3785	4.0300e-003	0.5360	2.4100e-003	0.5384	0.1424	2.2200e-003	0.1446	0.0000	392.3754	392.3754	9.3000e-003	9.9900e-003	395.5858
Total	**0.1630**	**1.0705**	**1.7434**	**8.2700e-003**	**0.7045**	**7.2200e-003**	**0.7118**	**0.1910**	**6.8200e-003**	**0.1978**	**0.0000**	**798.3051**	**798.3051**	**0.0117**	**0.0680**	**818.8494**

3.5 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	0.0343	0.3218	0.5467	8.5000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	75.0722	75.0722	0.0243	0.0000	75.6792
Paving	9.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0434**	**0.3218**	**0.5467**	**8.5000e-004**		**0.0157**	**0.0157**		**0.0144**	**0.0144**	**0.0000**	**75.0722**	**75.0722**	**0.0243**	**0.0000**	**75.6792**

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3.5 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	1.5100e-003	1.1500e-003	0.0148	4.0000e-005	4.5300e-003	3.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.6048	3.6048	1.1000e-004	1.1000e-004	3.6390
Total	**1.5100e-003**	**1.1500e-003**	**0.0148**	**4.0000e-005**	**4.5300e-003**	**3.0000e-005**	**4.5600e-003**	**1.2000e-003**	**2.0000e-005**	**1.2300e-003**	**0.0000**	**3.6048**	**3.6048**	**1.1000e-004**	**1.1000e-004**	**3.6390**

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	0.0343	0.3218	0.5467	8.5000e-004		0.0157	0.0157		0.0144	0.0144	0.0000	75.0721	75.0721	0.0243	0.0000	75.6791
Paving	9.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0434**	**0.3218**	**0.5467**	**8.5000e-004**		**0.0157**	**0.0157**		**0.0144**	**0.0144**	**0.0000**	**75.0721**	**75.0721**	**0.0243**	**0.0000**	**75.6791**

3.5 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	1.5100e-003	1.1500e-003	0.0148	4.0000e-005	4.5300e-003	3.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.6048	3.6048	1.1000e-004	1.1000e-004	3.6390
Total	**1.5100e-003**	**1.1500e-003**	**0.0148**	**4.0000e-005**	**4.5300e-003**	**3.0000e-005**	**4.5600e-003**	**1.2000e-003**	**2.0000e-005**	**1.2300e-003**	**0.0000**	**3.6048**	**3.6048**	**1.1000e-004**	**1.1000e-004**	**3.6390**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3083					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4200e-003	0.0229	0.0362	6.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
Total	**0.3118**	**0.0229**	**0.0362**	**6.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**5.1065**	**5.1065**	**2.8000e-004**	**0.0000**	**5.1135**

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3.6 Architectural Coating - 2028

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	7.2800e-003	5.0900e-003	0.0725	2.1000e-004	0.0267	1.3000e-004	0.0269	7.1000e-003	1.2000e-004	7.2200e-003	0.0000	19.9334	19.9334	5.0000e-004	5.2000e-004	20.1018
Total	**7.2800e-003**	**5.0900e-003**	**0.0725**	**2.1000e-004**	**0.0267**	**1.3000e-004**	**0.0269**	**7.1000e-003**	**1.2000e-004**	**7.2200e-003**	**0.0000**	**19.9334**	**19.9334**	**5.0000e-004**	**5.2000e-004**	**20.1018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3083					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4200e-003	0.0229	0.0362	6.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	5.1065	5.1065	2.8000e-004	0.0000	5.1135
Total	**0.3118**	**0.0229**	**0.0362**	**6.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**5.1065**	**5.1065**	**2.8000e-004**	**0.0000**	**5.1135**

3.6 Architectural Coating - 2028

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	7.2800e-003	5.0900e-003	0.0725	2.1000e-004	0.0267	1.3000e-004	0.0269	7.1000e-003	1.2000e-004	7.2200e-003	0.0000	19.9334	19.9334	5.0000e-004	5.2000e-004	20.1018
Total	**7.2800e-003**	**5.0900e-003**	**0.0725**	**2.1000e-004**	**0.0267**	**1.3000e-004**	**0.0269**	**7.1000e-003**	**1.2000e-004**	**7.2200e-003**	**0.0000**	**19.9334**	**19.9334**	**5.0000e-004**	**5.2000e-004**	**20.1018**

3.6 Architectural Coating - 2029

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	1.2334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.0916	0.1447	2.4000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	20.4260	20.4260	1.1100e-003	0.0000	20.4539
Total	**1.2470**	**0.0916**	**0.1447**	**2.4000e-004**		**4.1200e-003**	**4.1200e-003**		**4.1200e-003**	**4.1200e-003**	**0.0000**	**20.4260**	**20.4260**	**1.1100e-003**	**0.0000**	**20.4539**

3.6 Architectural Coating - 2029

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	0.0272	0.0187	0.2750	8.0000e-004	0.1070	4.8000e-004	0.1074	0.0284	4.4000e-004	0.0289	0.0000	78.2864	78.2864	1.8500e-003	1.9900e-003	78.9270
Total	**0.0272**	**0.0187**	**0.2750**	**8.0000e-004**	**0.1070**	**4.8000e-004**	**0.1074**	**0.0284**	**4.4000e-004**	**0.0289**	**0.0000**	**78.2864**	**78.2864**	**1.8500e-003**	**1.9900e-003**	**78.9270**

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	1.2334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.0916	0.1447	2.4000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	20.4260	20.4260	1.1100e-003	0.0000	20.4539
Total	**1.2470**	**0.0916**	**0.1447**	**2.4000e-004**		**4.1200e-003**	**4.1200e-003**		**4.1200e-003**	**4.1200e-003**	**0.0000**	**20.4260**	**20.4260**	**1.1100e-003**	**0.0000**	**20.4539**

3.6 Architectural Coating - 2029

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	0.0272	0.0187	0.2750	8.0000e-004	0.1070	4.8000e-004	0.1074	0.0284	4.4000e-004	0.0289	0.0000	78.2864	78.2864	1.8500e-003	1.9900e-003	78.9270
Total	**0.0272**	**0.0187**	**0.2750**	**8.0000e-004**	**0.1070**	**4.8000e-004**	**0.1074**	**0.0284**	**4.4000e-004**	**0.0289**	**0.0000**	**78.2864**	**78.2864**	**1.8500e-003**	**1.9900e-003**	**78.9270**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.9537	1.1834	9.3825	0.0195	2.3886	0.0144	2.4029	0.6388	0.0134	0.6522	0.0000	1,906.2105	1,906.2105	0.1254	0.0879	1,935.5419
Unmitigated	0.9537	1.1834	9.3825	0.0195	2.3886	0.0144	2.4029	0.6388	0.0134	0.6522	0.0000	1,906.2105	1,906.2105	0.1254	0.0879	1,935.5419

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		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	2,256.16	2,280.06	2043.45	6,331,159	6,331,159
Total	2,256.16	2,280.06	2,043.45	6,331,159	6,331,159

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655
Other Asphalt Surfaces	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655
Other Non-Asphalt Surfaces	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655
Single Family Housing	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	333.0634	333.0634	0.0281	3.4100e-003	334.7816
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	333.0634	333.0634	0.0281	3.4100e-003	334.7816
NaturalGas Mitigated	0.0329	0.2807	0.1195	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.1247	325.1247	6.2300e-003	5.9600e-003	327.0568
NaturalGas Unmitigated	0.0329	0.2807	0.1195	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.1247	325.1247	6.2300e-003	5.9600e-003	327.0568

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.09261e+006	0.0329	0.2807	0.1195	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.1247	325.1247	6.2300e-003	5.9600e-003	327.0568
Total		**0.0329**	**0.2807**	**0.1195**	**1.7900e-003**		**0.0227**	**0.0227**		**0.0227**	**0.0227**	**0.0000**	**325.1247**	**325.1247**	**6.2300e-003**	**5.9600e-003**	**327.0568**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.09261e+006	0.0329	0.2807	0.1195	1.7900e-003		0.0227	0.0227		0.0227	0.0227	0.0000	325.1247	325.1247	6.2300e-003	5.9600e-003	327.0568
Total		**0.0329**	**0.2807**	**0.1195**	**1.7900e-003**		**0.0227**	**0.0227**		**0.0227**	**0.0227**	**0.0000**	**325.1247**	**325.1247**	**6.2300e-003**	**5.9600e-003**	**327.0568**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.87805e+006	333.0634	0.0281	3.4100e-003	334.7816
Total		**333.0634**	**0.0281**	**3.4100e-003**	**334.7816**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.87805e+006	333.0634	0.0281	3.4100e-003	334.7816
Total		**333.0634**	**0.0281**	**3.4100e-003**	**334.7816**

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 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	1.9473	0.1830	1.8395	1.1300e-003		0.0230	0.0230		0.0230	0.0230	0.0000	191.1478	191.1478	6.3700e-003	3.4500e-003	192.3356
Unmitigated	1.9473	0.1830	1.8395	1.1300e-003		0.0230	0.0230		0.0230	0.0230	0.0000	191.1478	191.1478	6.3700e-003	3.4500e-003	192.3356

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	0.1542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0190	0.1626	0.0692	1.0400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	188.2483	188.2483	3.6100e-003	3.4500e-003	189.3670
Landscaping	0.0530	0.0204	1.7703	9.0000e-005		9.8400e-003	9.8400e-003		9.8400e-003	9.8400e-003	0.0000	2.8995	2.8995	2.7600e-003	0.0000	2.9686
Total	**1.9473**	**0.1830**	**1.8395**	**1.1300e-003**		**0.0230**	**0.0230**		**0.0230**	**0.0230**	**0.0000**	**191.1478**	**191.1478**	**6.3700e-003**	**3.4500e-003**	**192.3356**

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	0.1542					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0190	0.1626	0.0692	1.0400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	188.2483	188.2483	3.6100e-003	3.4500e-003	189.3670
Landscaping	0.0530	0.0204	1.7703	9.0000e-005		9.8400e-003	9.8400e-003		9.8400e-003	9.8400e-003	0.0000	2.8995	2.8995	2.7600e-003	0.0000	2.9686
Total	**1.9473**	**0.1830**	**1.8395**	**1.1300e-003**		**0.0230**	**0.0230**		**0.0230**	**0.0230**	**0.0000**	**191.1478**	**191.1478**	**6.3700e-003**	**3.4500e-003**	**192.3356**

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 Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	132.1950	0.5182	0.0133	149.1070
Unmitigated	132.1950	0.5182	0.0133	149.1070

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 36.5189	71.9535	6.0700e-003	7.4000e-004	72.3247
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15.5718 / 9.81701	60.2415	0.5121	0.0126	76.7823
Total		**132.1950**	**0.5182**	**0.0133**	**149.1070**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 36.5189	71.9535	6.0700e-003	7.4000e-004	72.3247
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15.5718 / 9.81701	60.2415	0.5121	0.0126	76.7823
Total		**132.1950**	**0.5182**	**0.0133**	**149.1070**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.4627	3.3960	0.0000	142.3614
Unmitigated	57.4627	3.3960	0.0000	142.3614

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	2.64	0.5359	0.0317	0.0000	1.3277
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	280.44	56.9268	3.3643	0.0000	141.0337
Total		**57.4627**	**3.3960**	**0.0000**	**142.3614**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	2.64	0.5359	0.0317	0.0000	1.3277
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	280.44	56.9268	3.3643	0.0000	141.0337
Total		**57.4627**	**3.3960**	**0.0000**	**142.3614**

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

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Air Quality Study - TTM 83674 Housing Development, Palmdale, 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
Other Asphalt Surfaces	6.92	Acre	6.92	301,435.20	0
Other Non-Asphalt Surfaces	3.18	Acre	3.18	138,520.80	0
City Park	30.65	Acre	30.65	1,335,114.00	0
Single Family Housing	239.00	Dwelling Unit	18.38	430,200.00	684

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2030
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 07/01/2024 and five days per week was provided by client. Since project is a housing development, assumed all paving was conducted prior to building construction. For architectural coating phase, extended number of days to more realistic timeline and assumed overlap with end of building construction phase.

Grading - Material export for grading phase provided by client on data request form.

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.

Vehicle Trips - All areas modeled as City Park are within the housing development and no vehicle trips are expected.

Woodstoves - Based on client input, no woodstoves will be installed and each home will have a gas fireplace.

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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.

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 - -

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	75.00	200.00
tblConstructionPhase	PhaseEndDate	8/10/2029	5/9/2025
tblConstructionPhase	PhaseEndDate	4/27/2029	8/10/2029
tblConstructionPhase	PhaseEndDate	11/23/2029	8/10/2029
tblConstructionPhase	PhaseStartDate	4/28/2029	1/25/2025
tblConstructionPhase	PhaseStartDate	1/25/2025	5/10/2025
tblConstructionPhase	PhaseStartDate	8/11/2029	11/4/2028
tblFireplaces	NumberGas	131.45	239.00
tblFireplaces	NumberNoFireplace	23.90	0.00
tblFireplaces	NumberWood	83.65	0.00
tblGrading	MaterialExported	0.00	30,621.00
tblLandUse	LotAcreage	77.60	18.38
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 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	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	11.95	0.00
tblWoodstoves	NumberNoncatalytic	11.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.3678	36.3805	29.4387	0.0826	19.8049	1.3634	21.0351	10.1417	1.2553	11.2735	0.0000	8,179.0628	8,179.0628	1.9612	0.3204	8,323.5609
2025	4.3896	31.9111	46.1482	0.1462	10.0084	1.1587	11.1670	3.8691	1.0670	4.9360	0.0000	15,057.4363	15,057.4363	1.9602	1.0358	15,386.4157
2026	4.2074	25.6399	44.3560	0.1431	8.9754	0.6249	9.6003	2.4292	0.5881	3.0173	0.0000	14,780.9822	14,780.9822	0.7952	1.0057	15,100.5620
2027	4.0415	25.4304	42.8198	0.1401	8.9754	0.6224	9.5978	2.4292	0.5857	3.0149	0.0000	14,511.0860	14,511.0860	0.7803	0.9767	14,821.6466
2028	19.9090	26.6332	47.5139	0.1515	10.3390	0.6779	11.0169	2.7909	0.6409	3.4318	0.0000	15,740.4113	15,740.4113	0.8096	0.9765	16,051.6604
2029	19.7352	26.4684	46.1703	0.1487	10.3390	0.6752	11.0142	2.7909	0.6384	3.4293	0.0000	15,492.2279	15,492.2279	0.7962	0.9512	15,795.5759
Maximum	**19.9090**	**36.3805**	**47.5139**	**0.1515**	**19.8049**	**1.3634**	**21.0351**	**10.1417**	**1.2553**	**11.2735**	**0.0000**	**15,740.4113**	**15,740.4113**	**1.9612**	**1.0358**	**16,051.6604**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

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	3.3678	36.3805	29.4387	0.0826	7.8141	1.3634	9.0443	3.9792	1.2553	5.1110	0.0000	8,179.0628	8,179.0628	1.9612	0.3204	8,323.5609
2025	4.3896	31.9111	46.1482	0.1462	8.9754	1.1587	9.6026	2.4292	1.0670	3.0194	0.0000	15,057.4363	15,057.4363	1.9602	1.0358	15,386.4157
2026	4.2074	25.6399	44.3560	0.1431	8.9754	0.6249	9.6003	2.4292	0.5881	3.0173	0.0000	14,780.9822	14,780.9822	0.7952	1.0057	15,100.5620
2027	4.0415	25.4304	42.8198	0.1401	8.9754	0.6224	9.5978	2.4292	0.5857	3.0149	0.0000	14,511.0860	14,511.0860	0.7803	0.9767	14,821.6466
2028	19.9090	26.6332	47.5139	0.1515	10.3390	0.6779	11.0169	2.7909	0.6409	3.4318	0.0000	15,740.4113	15,740.4113	0.8096	0.9765	16,051.6604
2029	19.7352	26.4684	46.1703	0.1487	10.3390	0.6752	11.0142	2.7909	0.6384	3.4293	0.0000	15,492.2279	15,492.2279	0.7962	0.9512	15,795.5759
Maximum	**19.9090**	**36.3805**	**47.5139**	**0.1515**	**10.3390**	**1.3634**	**11.0169**	**3.9792**	**1.2553**	**5.1110**	**0.0000**	**15,740.4113**	**15,740.4113**	**1.9612**	**1.0358**	**16,051.6604**

	ROG	NOx	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**	**19.03**	**0.00**	**18.46**	**31.09**	**0.00**	**27.76**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	11.3282	4.1913	21.3569	0.0264		0.4299	0.4299		0.4299	0.4299	0.0000	5,096.6894	5,096.6894	0.1309	0.0928	5,127.6117
Energy	0.1800	1.5383	0.6546	9.8200e-003		0.1244	0.1244		0.1244	0.1244		1,963.7735	1,963.7735	0.0376	0.0360	1,975.4432
Mobile	6.4312	6.0893	55.9218	0.1177	13.6893	0.0808	13.7701	3.6551	0.0753	3.7304		12,674.1623	12,674.1623	0.7451	0.5200	12,847.7519
Total	**17.9394**	**11.8190**	**77.9332**	**0.1539**	**13.6893**	**0.6350**	**14.3244**	**3.6551**	**0.6296**	**4.2847**	**0.0000**	**19,734.6252**	**19,734.6252**	**0.9136**	**0.6488**	**19,950.8067**

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	11.3282	4.1913	21.3569	0.0264		0.4299	0.4299		0.4299	0.4299	0.0000	5,096.6894	5,096.6894	0.1309	0.0928	5,127.6117
Energy	0.1800	1.5383	0.6546	9.8200e-003		0.1244	0.1244		0.1244	0.1244		1,963.7735	1,963.7735	0.0376	0.0360	1,975.4432
Mobile	6.4312	6.0893	55.9218	0.1177	13.6893	0.0808	13.7701	3.6551	0.0753	3.7304		12,674.1623	12,674.1623	0.7451	0.5200	12,847.7519
Total	**17.9394**	**11.8190**	**77.9332**	**0.1539**	**13.6893**	**0.6350**	**14.3244**	**3.6551**	**0.6296**	**4.2847**	**0.0000**	**19,734.6252**	**19,734.6252**	**0.9136**	**0.6488**	**19,950.8067**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	7/1/2024	8/23/2024	5	40	
2	Grading	Grading	8/24/2024	1/24/2025	5	110	
3	Building Construction	Building Construction	5/10/2025	8/10/2029	5	1110	
4	Paving	Paving	1/25/2025	5/9/2025	5	75	
5	Architectural Coating	Architectural Coating	11/4/2028	8/10/2029	5	200	

Acres of Grading (Site Preparation Phase): 60

Acres of Grading (Grading Phase): 330

Acres of Paving: 10.1

Residential Indoor: 871,155; Residential Outdoor: 290,385; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 26,397 (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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,828.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	832.00	316.00	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
Architectural Coating	1	166.00	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 - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0618	0.0369	0.5929	1.3800e-003	0.1479	8.6000e-004	0.1487	0.0392	7.9000e-004	0.0400		142.0355	142.0355	4.2200e-003	3.7300e-003	143.2515
Total	**0.0618**	**0.0369**	**0.5929**	**1.3800e-003**	**0.1479**	**8.6000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**142.0355**	**142.0355**	**4.2200e-003**	**3.7300e-003**	**143.2515**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0618	0.0369	0.5929	1.3800e-003	0.1479	8.6000e-004	0.1487	0.0392	7.9000e-004	0.0400		142.0355	142.0355	4.2200e-003	3.7300e-003	143.2515
Total	**0.0618**	**0.0369**	**0.5929**	**1.3800e-003**	**0.1479**	**8.6000e-004**	**0.1487**	**0.0392**	**7.9000e-004**	**0.0400**		**142.0355**	**142.0355**	**4.2200e-003**	**3.7300e-003**	**143.2515**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					9.2351	0.0000	9.2351	3.6585	0.0000	3.6585			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**	**9.2351**	**1.3354**	**10.5705**	**3.6585**	**1.2286**	**4.8871**		**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	0.0810	3.9626	1.0571	0.0190	0.6090	0.0270	0.6360	0.1670	0.0259	0.1928		2,011.4969	2,011.4969	0.0129	0.3162	2,106.0520
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	0.0687	0.0410	0.6588	1.5300e-003	0.1643	9.6000e-004	0.1653	0.0436	8.8000e-004	0.0445		157.8172	157.8172	4.6900e-003	4.1400e-003	159.1684
Total	**0.1496**	**4.0035**	**1.7159**	**0.0205**	**0.7733**	**0.0280**	**0.8013**	**0.2105**	**0.0268**	**0.2373**		**2,169.3141**	**2,169.3141**	**0.0176**	**0.3204**	**2,265.2203**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					3.6017	0.0000	3.6017	1.4268	0.0000	1.4268			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**	**3.6017**	**1.3354**	**4.9371**	**1.4268**	**1.2286**	**2.6554**	**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	0.0810	3.9626	1.0571	0.0190	0.6090	0.0270	0.6360	0.1670	0.0259	0.1928		2,011.4969	2,011.4969	0.0129	0.3162	2,106.0520
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	0.0687	0.0410	0.6588	1.5300e-003	0.1643	9.6000e-004	0.1653	0.0436	8.8000e-004	0.0445		157.8172	157.8172	4.6900e-003	4.1400e-003	159.1684
Total	**0.1496**	**4.0035**	**1.7159**	**0.0205**	**0.7733**	**0.0280**	**0.8013**	**0.2105**	**0.0268**	**0.2373**		**2,169.3141**	**2,169.3141**	**0.0176**	**0.3204**	**2,265.2203**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					
Fugitive Dust					9.2351	0.0000	9.2351	3.6585	0.0000	3.6585			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**9.2351**	**1.1309**	**10.3660**	**3.6585**	**1.0404**	**4.6989**		**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

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	0.0808	3.9314	1.0610	0.0185	0.6090	0.0269	0.6359	0.1670	0.0257	0.1927		1,963.5387	1,963.5387	0.0128	0.3087	2,055.8437
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	0.0639	0.0367	0.6101	1.4800e-003	0.1643	9.2000e-004	0.1652	0.0436	8.4000e-004	0.0444		154.0375	154.0375	4.2300e-003	3.8500e-003	155.2920
Total	**0.1447**	**3.9682**	**1.6711**	**0.0200**	**0.7733**	**0.0278**	**0.8011**	**0.2105**	**0.0266**	**0.2371**		**2,117.5763**	**2,117.5763**	**0.0170**	**0.3125**	**2,211.1357**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 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					
Fugitive Dust					3.6017	0.0000	3.6017	1.4268	0.0000	1.4268			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**3.6017**	**1.1309**	**4.7326**	**1.4268**	**1.0404**	**2.4672**	**0.0000**	**6,008.2814**	**6,008.2814**	**1.9432**		**6,056.8614**

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	0.0808	3.9314	1.0610	0.0185	0.6090	0.0269	0.6359	0.1670	0.0257	0.1927		1,963.5387	1,963.5387	0.0128	0.3087	2,055.8437
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	0.0639	0.0367	0.6101	1.4800e-003	0.1643	9.2000e-004	0.1652	0.0436	8.4000e-004	0.0444		154.0375	154.0375	4.2300e-003	3.8500e-003	155.2920
Total	**0.1447**	**3.9682**	**1.6711**	**0.0200**	**0.7733**	**0.0278**	**0.8011**	**0.2105**	**0.0266**	**0.2371**		**2,117.5763**	**2,117.5763**	**0.0170**	**0.3125**	**2,211.1357**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3643	11.8730	4.6820	0.0578	2.1407	0.0616	2.2023	0.6163	0.0589	0.6752		6,093.0004	6,093.0004	0.0352	0.8755	6,354.7707
Worker	2.6578	1.5284	25.3815	0.0615	6.8347	0.0381	6.8728	1.8129	0.0351	1.8479		6,407.9616	6,407.9616	0.1761	0.1603	6,460.1469
Total	**3.0222**	**13.4014**	**30.0635**	**0.1193**	**8.9754**	**0.0997**	**9.0751**	**2.4292**	**0.0939**	**2.5231**		**12,500.9620**	**12,500.9620**	**0.2114**	**1.0358**	**12,814.9177**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3643	11.8730	4.6820	0.0578	2.1407	0.0616	2.2023	0.6163	0.0589	0.6752		6,093.0004	6,093.0004	0.0352	0.8755	6,354.7707
Worker	2.6578	1.5284	25.3815	0.0615	6.8347	0.0381	6.8728	1.8129	0.0351	1.8479		6,407.9616	6,407.9616	0.1761	0.1603	6,460.1469
Total	**3.0222**	**13.4014**	**30.0635**	**0.1193**	**8.9754**	**0.0997**	**9.0751**	**2.4292**	**0.0939**	**2.5231**		**12,500.9620**	**12,500.9620**	**0.2114**	**1.0358**	**12,814.9177**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3589	11.7893	4.6166	0.0565	2.1407	0.0611	2.2018	0.6163	0.0585	0.6748		5,965.4614	5,965.4614	0.0346	0.8553	6,221.2179
Worker	2.4812	1.3809	23.6547	0.0596	6.8347	0.0363	6.8709	1.8129	0.0334	1.8462		6,259.0464	6,259.0464	0.1596	0.1504	6,307.8460
Total	**2.8400**	**13.1702**	**28.2713**	**0.1161**	**8.9754**	**0.0974**	**9.0728**	**2.4292**	**0.0918**	**2.5210**		**12,224.5078**	**12,224.5078**	**0.1942**	**1.0057**	**12,529.0639**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3589	11.7893	4.6166	0.0565	2.1407	0.0611	2.2018	0.6163	0.0585	0.6748		5,965.4614	5,965.4614	0.0346	0.8553	6,221.2179
Worker	2.4812	1.3809	23.6547	0.0596	6.8347	0.0363	6.8709	1.8129	0.0334	1.8462		6,259.0464	6,259.0464	0.1596	0.1504	6,307.8460
Total	**2.8400**	**13.1702**	**28.2713**	**0.1161**	**8.9754**	**0.0974**	**9.0728**	**2.4292**	**0.0918**	**2.5210**		**12,224.5078**	**12,224.5078**	**0.1942**	**1.0057**	**12,529.0639**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2027

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3544	11.7062	4.5651	0.0553	2.1407	0.0607	2.2013	0.6163	0.0580	0.6743		5,831.7426	5,831.7426	0.0341	0.8348	6,081.3706
Worker	2.3197	1.2545	22.1700	0.0578	6.8347	0.0342	6.8689	1.8129	0.0315	1.8444		6,122.8691	6,122.8691	0.1452	0.1419	6,168.7780
Total	**2.6741**	**12.9607**	**26.7352**	**0.1131**	**8.9754**	**0.0949**	**9.0702**	**2.4292**	**0.0895**	**2.5187**		**11,954.6116**	**11,954.6116**	**0.1793**	**0.9767**	**12,250.1486**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2027

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3544	11.7062	4.5651	0.0553	2.1407	0.0607	2.2013	0.6163	0.0580	0.6743		5,831.7426	5,831.7426	0.0341	0.8348	6,081.3706
Worker	2.3197	1.2545	22.1700	0.0578	6.8347	0.0342	6.8689	1.8129	0.0315	1.8444		6,122.8691	6,122.8691	0.1452	0.1419	6,168.7780
Total	**2.6741**	**12.9607**	**26.7352**	**0.1131**	**8.9754**	**0.0949**	**9.0702**	**2.4292**	**0.0895**	**2.5187**		**11,954.6116**	**11,954.6116**	**0.1793**	**0.9767**	**12,250.1486**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2028

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3510	11.6431	4.5278	0.0541	2.1407	0.0603	2.2010	0.6163	0.0577	0.6740		5,703.7879	5,703.7879	0.0339	0.8150	5,947.5151
Worker	2.1698	1.1462	20.9186	0.0563	6.8347	0.0321	6.8668	1.8129	0.0295	1.8424		6,001.3219	6,001.3219	0.1329	0.1346	6,044.7679
Total	**2.5208**	**12.7893**	**25.4464**	**0.1103**	**8.9754**	**0.0924**	**9.0678**	**2.4292**	**0.0872**	**2.5164**		**11,705.1098**	**11,705.1098**	**0.1667**	**0.9497**	**11,992.2830**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2028

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3510	11.6431	4.5278	0.0541	2.1407	0.0603	2.2010	0.6163	0.0577	0.6740		5,703.7879	5,703.7879	0.0339	0.8150	5,947.5151
Worker	2.1698	1.1462	20.9186	0.0563	6.8347	0.0321	6.8668	1.8129	0.0295	1.8424		6,001.3219	6,001.3219	0.1329	0.1346	6,044.7679
Total	**2.5208**	**12.7893**	**25.4464**	**0.1103**	**8.9754**	**0.0924**	**9.0678**	**2.4292**	**0.0872**	**2.5164**		**11,705.1098**	**11,705.1098**	**0.1667**	**0.9497**	**11,992.2830**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2029

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3480	11.5905	4.4961	0.0530	2.1407	0.0600	2.2007	0.6163	0.0574	0.6737		5,586.6824	5,586.6824	0.0336	0.7971	5,825.0482
Worker	2.0274	1.0527	19.8250	0.0549	6.8347	0.0301	6.8648	1.8129	0.0277	1.8406		5,892.0465	5,892.0465	0.1219	0.1285	5,933.3752
Total	**2.3754**	**12.6432**	**24.3211**	**0.1078**	**8.9754**	**0.0901**	**9.0655**	**2.4292**	**0.0851**	**2.5143**		**11,478.7289**	**11,478.7289**	**0.1556**	**0.9255**	**11,758.4235**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2029

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.3480	11.5905	4.4961	0.0530	2.1407	0.0600	2.2007	0.6163	0.0574	0.6737		5,586.6824	5,586.6824	0.0336	0.7971	5,825.0482
Worker	2.0274	1.0527	19.8250	0.0549	6.8347	0.0301	6.8648	1.8129	0.0277	1.8406		5,892.0465	5,892.0465	0.1219	0.1285	5,933.3752
Total	**2.3754**	**12.6432**	**24.3211**	**0.1078**	**8.9754**	**0.0901**	**9.0655**	**2.4292**	**0.0851**	**2.5143**		**11,478.7289**	**11,478.7289**	**0.1556**	**0.9255**	**11,758.4235**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	0.2417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1569**	**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	0.0479	0.0276	0.4576	1.1100e-003	0.1232	6.9000e-004	0.1239	0.0327	6.3000e-004	0.0333		115.5282	115.5282	3.1800e-003	2.8900e-003	116.4690
Total	**0.0479**	**0.0276**	**0.4576**	**1.1100e-003**	**0.1232**	**6.9000e-004**	**0.1239**	**0.0327**	**6.3000e-004**	**0.0333**		**115.5282**	**115.5282**	**3.1800e-003**	**2.8900e-003**	**116.4690**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 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	0.2417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1569**	**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	0.0479	0.0276	0.4576	1.1100e-003	0.1232	6.9000e-004	0.1239	0.0327	6.3000e-004	0.0333		115.5282	115.5282	3.1800e-003	2.8900e-003	116.4690
Total	**0.0479**	**0.0276**	**0.4576**	**1.1100e-003**	**0.1232**	**6.9000e-004**	**0.1239**	**0.0327**	**6.3000e-004**	**0.0333**		**115.5282**	**115.5282**	**3.1800e-003**	**2.8900e-003**	**116.4690**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

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	15.4170					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	**15.5879**	**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	0.4329	0.2287	4.1737	0.0112	1.3637	6.4000e-003	1.3701	0.3617	5.8900e-003	0.3676		1,197.3791	1,197.3791	0.0265	0.0269	1,206.0474
Total	**0.4329**	**0.2287**	**4.1737**	**0.0112**	**1.3637**	**6.4000e-003**	**1.3701**	**0.3617**	**5.8900e-003**	**0.3676**		**1,197.3791**	**1,197.3791**	**0.0265**	**0.0269**	**1,206.0474**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2028

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	15.4170					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	**15.5879**	**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	0.4329	0.2287	4.1737	0.0112	1.3637	6.4000e-003	1.3701	0.3617	5.8900e-003	0.3676		1,197.3791	1,197.3791	0.0265	0.0269	1,206.0474
Total	**0.4329**	**0.2287**	**4.1737**	**0.0112**	**1.3637**	**6.4000e-003**	**1.3701**	**0.3617**	**5.8900e-003**	**0.3676**		**1,197.3791**	**1,197.3791**	**0.0265**	**0.0269**	**1,206.0474**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

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	15.4170					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	**15.5879**	**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	0.4045	0.2100	3.9555	0.0110	1.3637	6.0100e-003	1.3697	0.3617	5.5300e-003	0.3672		1,175.5766	1,175.5766	0.0243	0.0256	1,183.8225
Total	**0.4045**	**0.2100**	**3.9555**	**0.0110**	**1.3637**	**6.0100e-003**	**1.3697**	**0.3617**	**5.5300e-003**	**0.3672**		**1,175.5766**	**1,175.5766**	**0.0243**	**0.0256**	**1,183.8225**

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2029

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	15.4170					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	**15.5879**	**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	0.4045	0.2100	3.9555	0.0110	1.3637	6.0100e-003	1.3697	0.3617	5.5300e-003	0.3672		1,175.5766	1,175.5766	0.0243	0.0256	1,183.8225
Total	**0.4045**	**0.2100**	**3.9555**	**0.0110**	**1.3637**	**6.0100e-003**	**1.3697**	**0.3617**	**5.5300e-003**	**0.3672**		**1,175.5766**	**1,175.5766**	**0.0243**	**0.0256**	**1,183.8225**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	6.4312	6.0893	55.9218	0.1177	13.6893	0.0808	13.7701	3.6551	0.0753	3.7304		12,674.1623	12,674.1623	0.7451	0.5200	12,847.7519
Unmitigated	6.4312	6.0893	55.9218	0.1177	13.6893	0.0808	13.7701	3.6551	0.0753	3.7304		12,674.1623	12,674.1623	0.7451	0.5200	12,847.7519

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		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	2,256.16	2,280.06	2043.45	6,331,159	6,331,159
Total	2,256.16	2,280.06	2,043.45	6,331,159	6,331,159

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
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655
Other Asphalt Surfaces	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655
Other Non-Asphalt Surfaces	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655
Single Family Housing	0.617522	0.051780	0.141456	0.103226	0.022838	0.006802	0.013317	0.009221	0.000734	0.000481	0.025840	0.002128	0.004655

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1800	1.5383	0.6546	9.8200e-003		0.1244	0.1244		0.1244	0.1244		1,963.7735	1,963.7735	0.0376	0.0360	1,975.4432
NaturalGas Unmitigated	0.1800	1.5383	0.6546	9.8200e-003		0.1244	0.1244		0.1244	0.1244		1,963.7735	1,963.7735	0.0376	0.0360	1,975.4432

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	16692.1	0.1800	1.5383	0.6546	9.8200e-003		0.1244	0.1244		0.1244	0.1244		1,963.7735	1,963.7735	0.0376	0.0360	1,975.4432
Total		**0.1800**	**1.5383**	**0.6546**	**9.8200e-003**		**0.1244**	**0.1244**		**0.1244**	**0.1244**		**1,963.7735**	**1,963.7735**	**0.0376**	**0.0360**	**1,975.4432**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	16.6921	0.1800	1.5383	0.6546	9.8200e-003		0.1244	0.1244		0.1244	0.1244		1,963.7735	1,963.7735	0.0376	0.0360	1,975.4432
Total		**0.1800**	**1.5383**	**0.6546**	**9.8200e-003**		**0.1244**	**0.1244**		**0.1244**	**0.1244**		**1,963.7735**	**1,963.7735**	**0.0376**	**0.0360**	**1,975.4432**

6.0 Area Detail

6.1 Mitigation Measures Area

Air Quality Study - TTM 83674 Housing Development, Palmdale, CA - Antelope Valley APCD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	11.3282	4.1913	21.3569	0.0264		0.4299	0.4299		0.4299	0.4299	0.0000	5,096.6894	5,096.6894	0.1309	0.0928	5,127.6117
Unmitigated	11.3282	4.1913	21.3569	0.0264		0.4299	0.4299		0.4299	0.4299	0.0000	5,096.6894	5,096.6894	0.1309	0.0928	5,127.6117

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	0.8448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4639	3.9646	1.6871	0.0253		0.3205	0.3205		0.3205	0.3205	0.0000	5,061.1765	5,061.1765	0.0970	0.0928	5,091.2525
Landscaping	0.5886	0.2268	19.6698	1.0400e-003		0.1094	0.1094		0.1094	0.1094		35.5129	35.5129	0.0339		36.3592
Total	**11.3282**	**4.1913**	**21.3569**	**0.0264**		**0.4299**	**0.4299**		**0.4299**	**0.4299**	**0.0000**	**5,096.6894**	**5,096.6894**	**0.1309**	**0.0928**	**5,127.6117**

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	0.8448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4309					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4639	3.9646	1.6871	0.0253		0.3205	0.3205		0.3205	0.3205	0.0000	5,061.1765	5,061.1765	0.0970	0.0928	5,091.2525
Landscaping	0.5886	0.2268	19.6698	1.0400e-003		0.1094	0.1094		0.1094	0.1094		35.5129	35.5129	0.0339		36.3592
Total	**11.3282**	**4.1913**	**21.3569**	**0.0264**		**0.4299**	**0.4299**		**0.4299**	**0.4299**	**0.0000**	**5,096.6894**	**5,096.6894**	**0.1309**	**0.0928**	**5,127.6117**

7.0 Water Detail

7.1 Mitigation Measures Water

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