APPENDIX 3.0 –

Air Quality Impact Analysis, Greenhouse Gas Analysis and Energy Analysis

MEMORANDUM

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DATE: October 11, 2024
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JOB NO: 15428-07 AQ, GHG, & EA Assessment

CORDOVA BUSINESS CENTER (APNS 0463-491-09-000) AIR QUALITY, GREENHOUSE GAS, AND ENERGY ASSESSMENT

Urban Crossroads, Inc. is pleased to provide the following Air Quality, Greenhouse Gas, and Energy Assessment for the Cordova Business Center Warehouse & Distribution development (**Project**), which is located within the North Apple Valley Industrial Specific Plan (**NAVISP**) on the southwest corner of Central Avenue and Cordova Road in the Town of Apple Valley (see Exhibit 1).

PROJECT OVERVIEW

The following assessment compares the proposed Project to the use evaluated previously in order to determine if the proposed Project falls within the overall envelope of analysis included in the Environmental Impact Report (**EIR**) (SCH No. 2008091077) for the Apple Valley General Plan and Annexations 2008-001 & 2008-002 (certified August 11, 2009, referred to as **GPEIR**). It is our understanding that the Project is to consist of a total of 494,000[1] square feet of warehousing and distribution uses[1] within a single building on 29.79-net acres (see Exhibit 2). The proposed project is anticipated to be constructed and fully operational by the year 2025.

SUMMARY OF FINDINGS

Results of the assessment indicate that the Project would not result in any impacts greater than the previously approved GPEIR with respect to air quality, greenhouse gas emissions, or energy demand. In fact, the Project would actually result in lesser emissions and consequently less impacts than what was evaluated for in the 2009 EIR based on a pro-rata share of total emissions.

[1] The warehousing and distribution land uses do not include any Fulfillment Centers (e.g., sort facilities such as Amazon) or Parcel Hubs (e.g., FedEx).

EXHIBIT 1: PROJECT LOCATION MAP

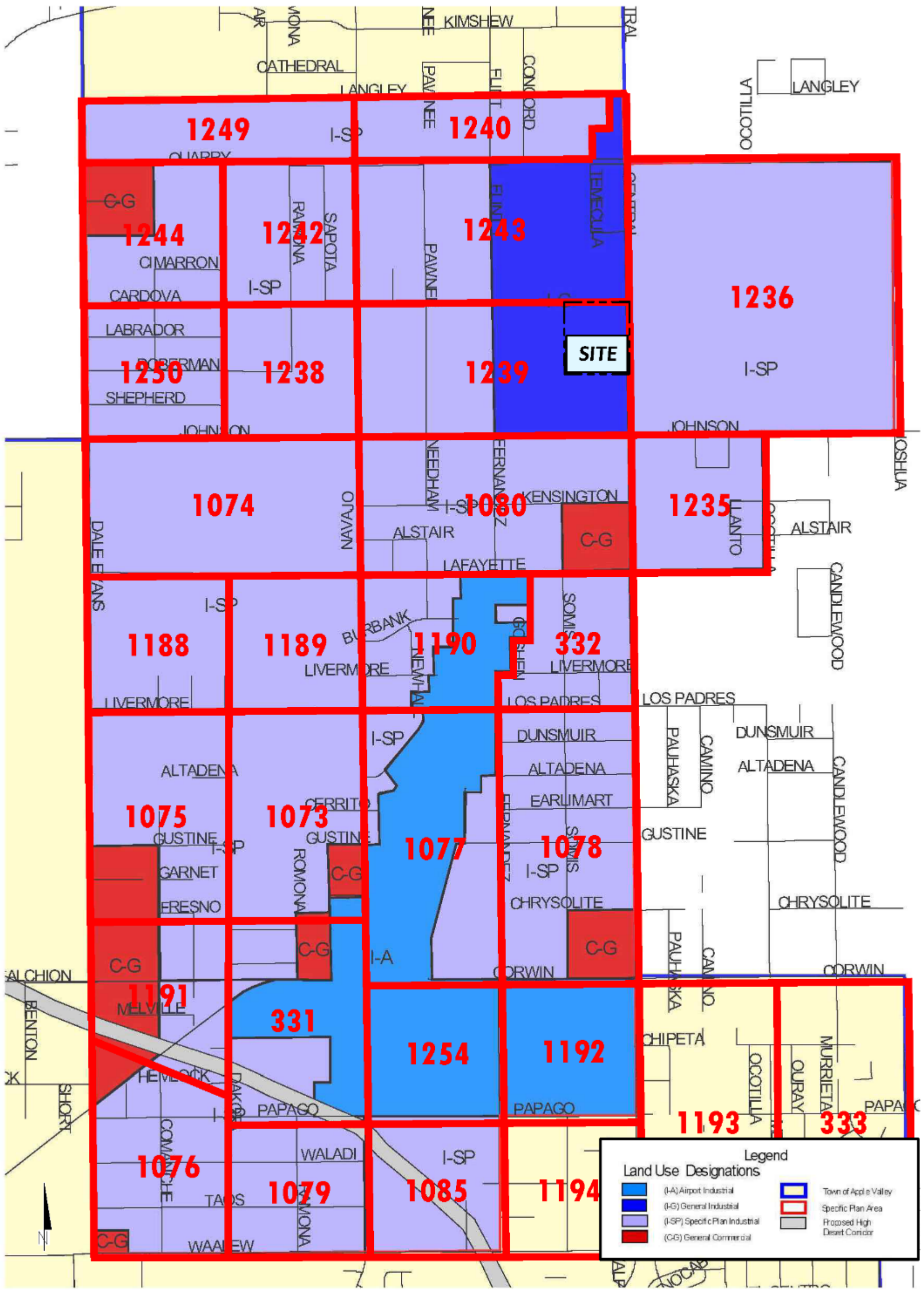
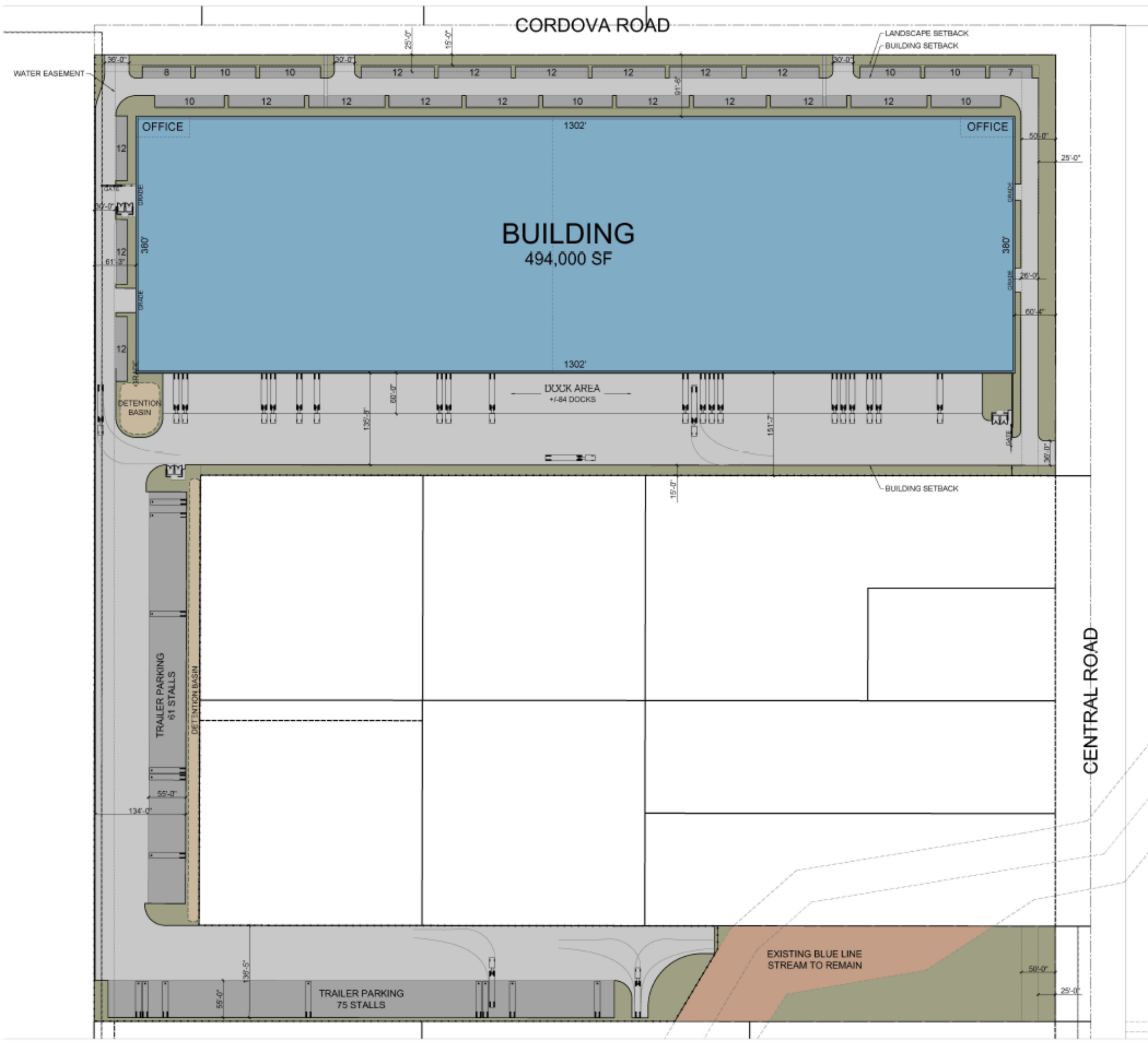


EXHIBIT 2: PRELIMINARY SITE PLAN



PROJECT AIR QUALITY IMPACTS

AIR QUALITY SETTING

MOJAVE DESERT AIR BASIN (MDAB)

The Project site is located in the portion of the County of San Bernardino, California, that is part of the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the MDAQMD. The air quality assessment for the proposed Project includes estimating emissions associated with short-term construction and long-term operation of the proposed Project. A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the MDAQMD, have created guidelines and requirements to conduct air quality analyses. The MDAQMD's current guidelines, included in its *California Environmental Quality Act and Federal Conformity Guidelines* (August 2011), were adhered to in the assessment of air quality impacts for the proposed Project.

Regional Climate

Air quality in the Project area is not only affected by various emissions sources (mobile, industry, etc.) but is also affected by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall.

The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains that dot the vast terrain rise from 1,000 to 4,000 ft 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 is approximately 10,000 ft), whose passes form the main channels for these air masses. The Mojave Desert is bordered on the southwest by the San Bernardino Mountains, separated from the San Gabriels by the Cajon Pass (4,200 ft). A lesser pass lies between the San Bernardino Mountains and the Little San Bernardino Mountains in the Morongo Valley. The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley), whose primary channel is the San Gorgonio Pass (2,300 ft) between the San Bernardino and San Jacinto Mountains.

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 they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate that at least three months have maximum average temperatures over 100.4° F.

Snow is common above 5,000 ft in elevation, resulting in moderate snowpack and limited spring runoff. Below 5,000 ft, any precipitation normally occurs as rainfall. Pacific storm fronts normally move into the area from the west, driven by prevailing winds from the west and southwest. During late summer, moist high-pressure systems from the Pacific collide with rising heated air from desert areas, resulting in brief, high-intensity thunderstorms that can cause high winds and localized flash flooding.

Criteria Pollutants

Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3) (precursor emissions include NO_X and reactive organic gases (ROG), CO, particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The San Bernardino County portion of the MDAB is designated as a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and is also a nonattainment area for the state standards for O_3, and PM_{10}.

REGULATORY BACKGROUND

FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the national ambient air quality standards (NAAQS) for O_3, CO, NO_X, SO_2, PM_{10}, and lead (Pb) (1). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (2). The CAA also mandates that each state submit and implement state implementation plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (3) (4). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

CALIFORNIA REGULATIONS

CARB

The CARB, which became part of the California EPA (CalEPA) in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the California ambient air quality standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl are not measured at any monitoring stations in the MDAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (5) (1).

Local air quality management districts, such as the MDAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

AQMP

Currently, the NAAQS and CAAQS are exceeded in most parts of the MDAB. In regard to the NAAQS, the Project region within the MDAB is in nonattainment for ozone (8-hour) and PM_{10}. For the CAAQS, the Project region within the MDAB is in nonattainment for ozone (1-hour and 8-hour), PM_{10}, and $PM_{2.5}$. In response, the MDAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (6). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

APPLICABLE REGULATORY REQUIRMENTS

MDAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings) (7) (8).

MDAQMD Rule 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.

- Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
- All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
- All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
- Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

MDAQMD Rule 1113

This rule serves to limit the volatile organic compound (VOC) content of architectural coatings used on projects in the MDAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the MDAQMD must comply with the current VOC standards set in this rule.

METHODOLOGY

In June 2024, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod

Version 2022.1.1.26. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (9). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality and greenhouse gas emissions.

Standards of Significance

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the California Environmental Quality Act Guidelines (CEQA Guidelines) (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (10):

- **Threshold 1**: Conflict with or obstruct implementation of the applicable air quality plan.
- **Threshold 2**: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- **Threshold 3**: Expose sensitive receptors to substantial pollutant concentrations.
- **Threshold 4**: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

AIR QUALITY REGIONAL EMISSIONS THRESHOLDS

The MDAQMD has developed regional significance thresholds for criteria pollutants, as summarized at Table 1 (11). The MDAQMD's CEQA Air Quality Significance Thresholds (April 2019) indicate that any projects in the Mojave Desert Air Basin (MDAB) with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Construction/Operations
CO	548 lbs/day
NO_X	137 lbs/day
VOC	137 lbs/day
SO_X	137 lbs/day
PM_{10}	82 lbs/day
$PM_{2.5}$	65 lbs/day

lbs/day – Pounds Per Day

CONSTRUCTION ACTIVITIES

The GPEIR does not quantify construction emissions associated with buildout of the General Plan, rather the GPEIR on Page III-23 states that: *"Air quality impacts resulting from construction activities could be significant and should be analyzed in detail, as each specific development is proposed and* *site-specific environmental documents are prepared."* As such, the purpose of this Construction Activities assessment serves to meet this request by calculating project-specific construction emissions and comparing them to applicable thresholds as required by the GPEIR.

Construction activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading (Import/Export)
- Building Construction
- Paving
- Architectural Coating

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. Per client provided data, the Project is expected to balance, and import/export would not be required.

ON-ROAD TRIPS

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul trucks commuting to and from the site. Worker and hauling trips are based on CalEEMod defaults. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in January 2024 and would last through November 2025 (10 months). The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent[2]. The duration of

[2] As shown in the CalEEMod User's Guide Version 2022, Appendix G "Table G-11. Statewide Average Annual Offroad Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines (12).

CONSTRUCTION EQUIPMENT

The Construction Contractor shall ensure that off-road diesel grading equipment rated at 150 horsepower (hp) or greater, complies with Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 off-road emissions standards or equivalent and shall ensure that all construction equipment is tuned and maintained in accordance with the manufacturer's specifications.

REGIONAL CONSTRUCTION EMISSIONS SUMMARY

The estimated maximum daily construction emissions without mitigation are summarized in Table 2. Detailed construction model outputs are presented in Attachment A. Under the assumed scenarios, emissions resulting from the Project construction will not exceed thresholds established by the MDAQMD for emissions of any criteria pollutant and no mitigation is required. Therefore, impacts would be less than significant.

TABLE 2: REGIONAL CONSTRUCTION EMISSIONS SUMMARY

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2024	5.14	81.81	163.82	0.28	11.06	3.95
2025	19.90	52.18	78.81	0.10	6.81	3.39
Winter						
2024	5.00	81.88	161.98	0.28	11.06	3.95
2025	19.62	52.43	71.21	0.10	6.81	3.39
Maximum Daily Emissions	**19.90**	**81.88**	**163.82**	**0.28**	**11.06**	**3.95**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

[1] PM_{10} and $PM_{2.5}$ source emissions reflect 3x daily watering per MDAQMD Rule 403 for fugitive dust.

OPERATIONAL ACTIVITIES

The GPEIR quantified emissions associated with operational activities from buildout of the General Plan. As such, the Operational Assessment prepared for the Project has been compared to what would otherwise occur through buildout of the General Plan to determine if the project would result in any new emissions beyond what was already disclosed in the GPEIR for the subject site.

PRO-RATA SHARE OF 2009 GENERAL PLAN EIR EMISSIONS ASSIGNED TO THE PROJECT SITE

The land area for the site at 494,000 square feet on 29.79 acres is included in the General Plan Update evaluated in the 2009 EIR and designated Planned Industrial (I-P). The site allows for warehousing and warehousing distribution facilities as permitted uses. In order to appropriately estimate the emissions considered in the GPEIR for the site, additional modeling has been conducted to determine the pro-rata share of emissions assigned to the Project's land area. First, the trips apportioned to each site in the General Plan were determined based on information in the Trip Generation Assessment. Additionally, the usage factors for electricity, natural gas, solid waste, and water demand were obtained from the GPEIR and apportioned to the site considered. Detailed operation model outputs for the Project Pro-Rata share of adopted Industrial land use for the subject site considered in the GPEIR are presented in Attachment B.

The estimated operation-source emissions from the Pro-Rata share of adopted General Plan Industrial land use for the subject site considered in the GPEIR are summarized in Table 3. The GPEIR identified less than significant air quality impacts from operational-source emissions.

TABLE 3: PRO-RATA SHARE OF 2009 GENERAL PLAN EIR OPERATIONAL EMISSIONS ASSIGNED TO THE PROJECT SITE (PROJECT PRO RATA ALLOCATION)

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
GPEIR Pro Rata Allocation Project Site Total Emissions	**19.45**	**38.91**	**113.21**	**0.39**	**16.59**	**5.20**
Winter						
GPEIR Pro Rata Allocation Project Site Total Emissions	**15.61**	**40.47**	**80.37**	**0.38**	**16.56**	**5.18**

REGIONAL OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project would result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational related emissions are expected from the following primary sources: area source emissions, energy source emissions, mobile source emissions, and on-site equipment emissions.

The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the *Cordova Business Center* Trip Generation Assessment were utilized in this analysis (13).

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length 15.3 miles for 2-axle (LHDT1, LHDT2) trucks, 14.2 miles 3-axle (MHDT) trucks and 39.9 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%. The trip length function for trucks in CalEEMod has been revised to 30.43 miles, with an assumption of 100% primary trips for the proposed industrial land uses.

It is common for warehouse buildings to require the operation of exterior yard trucks or cargo handling equipment (CHE) to move empty containers and empty chassis in the building's truck court areas. The cargo handling equipment is assumed to have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (14); for example, warehouse projects typically have 3.6-yard trucks/CHE per million square feet of building space. For this Project, on-site modeled operational equipment conservatively includes up to two (2) 200 horsepower (hp), compressed natural gas or gasoline-powered tractors/loaders/backhoes operating at 4 hours a day[3] for 365 days of the year.

The estimated operation-source emissions from the Project are summarized in Table 4. Detailed operation model outputs are presented in Attachment A. Emissions that would occur with implementation of the proposed Project are considered and addressed within the 2009 EIR and are less than the Pro-Rata share emissions summarized on Table 3. A comparison of the proposed Project emissions to the emissions that are accounted for based on the adopted land uses are summarized in Table 5 below.

TABLE 4: TOTAL PROPOSED PROJECT REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Proposed Cordova Site Total Emissions	**18.76**	**29.17**	**102.46**	**0.33**	**15.80**	**4.54**
Winter						
Proposed Cordova Site Total Emissions	**14.95**	**30.62**	**70.58**	**0.32**	**15.76**	**4.51**

PROJECT NET NEW OPERATIONAL EMISSIONS – COMPARISON TO THE PRO-RATA SHARE OF 2009 GENERAL PLAN EIR ASSIGNED TO THE PROJECT SITE (PROJECT PRO RATA ALLOCATION)

As shown in Table 5, the proposed Project is anticipated to generate less emissions per day for pollutants of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ as compared to emissions generated by the currently adopted Industrial land use for the subject site considered in the 2009 EIR.

[3] Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoes would operate up to 4 hours per day.

TABLE 5: PROJECT NET NEW REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Proposed Cordova Site Total Emissions	18.76	29.17	102.46	0.33	15.80	4.54
GPEIR Pro Rata Allocation Project Site Total Emissions	19.45	38.91	113.21	0.39	16.59	5.20
Net Emissions	**-0.68**	**-9.74**	**-10.75**	**-0.06**	**-0.80**	**-0.67**
Winter						
Proposed Cordova Site Total Emissions	14.95	30.62	70.58	0.32	15.76	4.51
GPEIR Pro Rata Allocation Project Site Total Emissions	15.61	40.47	80.37	0.38	16.56	5.18
Net Emissions	**-0.66**	**-9.85**	**-9.79**	**-0.06**	**-0.80**	**-0.67**

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 1

Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance the indicators discussed below:

Consistency Criterion No. 1

The Project would develop a total of 494,000 square feet of warehousing and distribution uses within a single building on 29.79-net acres which is consistent with the land uses in the adopted General Plan. Additionally, it should be noted that the proposed Project is anticipated to generate less emissions per day for pollutants of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ as compared to the Project Pro Rata Emissions Allocations generated by the adopted land use for the subject site as considered in the 2009 EIR. Emissions that would occur under the proposed Project are considered and addressed in the 2009 EIR and would therefore the Project would not result in any new significant impacts that were not previously disclosed and analyzed in the 2009 EIR.

Consistency Criterion No. 2

All MDAQMD Rules and Regulations

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visibile Emissions), 402 (Nuisance), and 403 (Fugitive Dust).

Consistency Criterion No. 3

Demonstrating that the project will not increase the frequency or severity of a violation in the federal or state ambient air quality standards.

Consistency Criterion No. 3 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional significance thresholds were exceeded. As evaluated, the proposed Project would not result in any new significant impacts that were not previously disclosed in the 2009 EIR.

AQMP Consistency Conclusion

The proposed Project results in fewer emissions than what would occur under the adopted land uses as evaluated in the 2009 EIR, as such, the proposed Project would not result in any new significant impacts that were not previously disclosed in the 2009 EIR.

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 2

Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Construction Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operational Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operational-source air pollutant emissions would result in fewer emissions than attributed to the subject site as evaluated in the 2009 EIR. Therefore, the proposed Project operational-source emissions would not result in emissions beyond what was previously disclosed and analyzed in 2009 EIR, and no new significant project-specific or cumulative impacts are expected.

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 3

Would the expose sensitive receptors to substantial pollutant concentrations?

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors. The nearest sensitive receptor is the existing residence approximately 3,652 feet southeast of the Project site.

As per the MDAQMD Guidelines, the following project types located within a specified distance to an existing or planned sensitive receptor land use must be evaluated to determine exposure of substantial pollutant concentrations to sensitive receptors (11):

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;

- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

The Project would develop a total of 494,000 square feet of warehousing and distribution uses within a single building on 29.79-net acre. The nearest residence is approximately 3,652 feet from the Project site. As such, no analysis for sensitive receptors is required. Additionally, results of the regional analysis indicate that the Project will generate fewer truck trips and consequently emissions than if the site were developed consistent with the general plan land uses as evaluated in the 2009 EIR. Therefore, sensitive receptors would not be subject to a significant air quality impact during Project construction and operational activities beyond those already disclosed and analyzed in the prior CEQA document for the General Plan EIR.

CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific CO "hot spots" is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown in Table 6.

TABLE 6: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

It should be noted that MDAQMD has not established its own guidelines for CO hotspots analysis. Since the MDAQMD guidelines are based on SCAQMD methodology, it is appropriate to apply the

SCAQMD criteria when analyzing CO hotspots within the MDAQMD. As identified within SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the basin were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (15). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (16). Traffic volumes generating the CO concentrations for the "hot spot" analysis is shown in Table 7. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which had AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (17). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the hourly traffic volume increase four times to 32,248 vehicles per hour, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).

TABLE 7: CO MODEL RESULTS

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

AIR QUALITY IMPACTS – CONSISTENCY WITH THRESHOLD NO. 4

Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)

- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the solid waste regulations. The proposed Project would also be required to comply with MDAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required (18).

PROJECT GHG ANALYSIS

CLIMATE CHANGE SETTING

Global climate change (GCC) is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this memo cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, this memo will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

REGULATORY SETTING

Executive Order S-3-05

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

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

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

Assembly Bill (AB) 32

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "GHGs" as defined under AB 32 include CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

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

CARB approved the 1990 GHG emissions level of 427 million metric ton of CO_2 equivalent per year ($MMTCO_2e$) on December 6, 2007 (19). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (20). At that level, a 28.4% reduction was required to achieve the 427 $MMTCO_2e$ 1990 inventory. In October 2010, CARB prepared an updated BAU 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7% reduction from BAU is required to achieve 1990 levels (21).

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012 (22). The State has achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 $MMTCO_2e$ (AB 32 2020 target)
- 2000: 463 $MMTCO_2e$ (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 $MMTCO_2e$ (an average 5% reduction needed to achieve 1990 base)

CARB has also made substantial progress in achieving its goal of achieving 1990 emissions levels by 2020. As described earlier in this section, CARB revised the 2020 BAU inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4% and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 $MMTCO_2e$ BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

Senate Bill (SB) 32

On September 8, 2016, Governor Jerry Brown signed the SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (23).

AB 197

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment a legislative committee to make recommendations about CARB programs to the legislature.

Executive Order B-55-18 and SB 100

Executive Order B-55-18 and SB 100. SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

Title 24 California Code of Regulations (CCR)

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, industrial, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023[4]. As construction of the Project is anticipated to be completed in 2025, the Project would be required to comply with the Title 24 standards in place at that time.

MDAQMD

According to the MDAQMD's *CEQA and Federal Conformity Guidelines*, a project is significant if it triggers or exceeds the most appropriate evaluation criteria. The MDAQMD states that in general, for GHG emissions, the significance emission threshold of 100,000 Tons CO_2e (90,718.5 MT CO_2e) per year is sufficient (24). A significant project must incorporate mitigation sufficient to reduce its

[4] The 2022 California Green Building Standard Code will be published July 1, 2022.

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.

Town Of Apple Valley Climate Action Plan (CAP)

On May 2021, the Town of Apple Valley adopted the 2019 CAP Update, which was originally adopted in 2010. The CAP provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate (25). The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that will make it possible for the Town to meet the recommended targets. Projects that demonstrate consistency with the strategies, actions, and emission reduction targets contained in the CAP would have a less than significant impact on climate change.

The 2010 CAP concluded that the Town of Apple Valley would need to reduce greenhouse gas emissions by a minimum of 112,337 $MTCO_2e$ per year by 2020 to meet a reduction target of 15% below 2005 levels. The 2019 CAP Update provides a revised 2030 target of 299,565 $MTCO_2e$ per year for greenhouse gas emissions or 40% below baseline emission levels. Greenhouse gas inventories emissions provided in the 2019 CAP Update show that emissions were approximately 596,681 $MTCO_2e$ per year, a 38,894 $MTCO_2e$ per year exceedance as compared to the 2020 target. To achieve the 2030 target of 40% below baseline emissions, the Town of Apple Valley would need to reduce greenhouse gas emissions by 148,334 $MTCO_2e$ per year.

GHG IMPACTS

Standards of Significance

According to the CEQA Guidelines Appendix G thresholds, to determine whether impacts from GHG emissions are significant. Would the project:

- **Threshold 1**: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- **Threshold 2**: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a "threshold of significance." For establishing significance thresholds, the Office of Planning and Research's amendments to the CEQA Guidelines Section 15064.7(c) state "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

CEQA Guidelines Section 15064.4(a) further states, ". . . A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance-based standards."

CEQA Guidelines Section 15064.4 provides that a lead agency should consider the following factors, among others, in assessing the significance of impacts from greenhouse gas emissions:

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #3:** The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

Discussion on Establishment of Significance Thresholds

The Town of Apple Valley has not adopted its own numeric threshold of significance for determining impacts with respect to greenhouse (GHG) emissions, thus the MDAQMD threshold of 90,718.5 $MTCO_2e$ per year will be utilized. If Project-related GHG emissions do not exceed the 90,718.5 $MTCO_2e$ per year threshold, then Project-related GHG emissions would clearly have a less-than-significant impact pursuant to Threshold GHG-1. On the other hand, if Project-related GHG emissions exceed 90,718.5 $MTCO_2e$ per year, the Project would be considered a substantial source of GHG emissions.

GHG IMPACTS – CONSISTENCY WITH THRESHOLD NO. 1

Would the Project have the potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment?

PROJECT PRO-RATA SHARE OF 2009 GENERAL PLAN EIR GHG EMISSIONS

The estimated GHG emissions from the Project Pro-Rata share of adopted Industrial land use for the subject site considered in the 2009 EIR are summarized in Table 8. Detailed operation model outputs for the Pro-Rata share of adopted Industrial land use for the subject site considered in the 2009 EIR are presented in Attachment B.

TABLE 8: PROJECT PRO-RATA SHARE OF 2009 GENERAL PLAN EIR GHG EMISSIONS (PROJECT PRO RATA EMISSIONS ALLOCATION)

Emission Source	Total CO_2e
GPEIR Pro Rata Allocation Cordova Project Site Total Emissions	**6,869.00**

PROJECT GHG EMISSIONS

The estimated GHG emissions for the Project land use are summarized in Table 9. The estimated GHG emission includes emissions from Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), and Refrigerants (R). As shown in Table 9, the Project would generate a total of approximately 5,198.14 $MTCO_2e$ per year. Detailed operation model outputs for the proposed Project are presented in Attachment A.

TABLE 9: TOTAL PROJECT GHG EMISSIONS

Emission Source	Total CO_2e
Proposed Cordova Site Total Emissions	**5,198.14**

PROJECT NET NEW GHG EMISSIONS – COMPARISON TO THE GPEIR PROJECT PRO-RATA SHARE OF 2009 GENERAL PLAN EIR ASSIGNED TO THE PROJECT SITE (PROJECT PRO RATA ALLOCATION)

Table 10 shows the Project is anticipated to generate less GHG emissions annually as compared to emissions generated by the Pro-Rata share of adopted Industrial land use for the subject site considered in the 2009 EIR. It should be noted that the proposed Project is anticipated to generate less emissions as compared to emissions generated by the Pro-Rata share of adopted Industrial land use for the subject site considered in the 2009 EIR. Emissions that would occur under the Project are considered and addressed within the Pro-Rata share of adopted Industrial land use for the subject site considered in the 2009 EIR and would therefore not result in any new significant impact that would not have otherwise occurred or could have been disclosed in the previous CEQA document.

TABLE 10: PROJECT NET NEW GHG EMISSIONS

Emission Source	Total CO_2e
Proposed Cordova Site Total Emissions	5,198.14
GPEIR Pro Rata Allocation Cordova Project Site Total Emissions	6,869.00
Net Emissions	**-1,670.85**

The Town of Apple Valley has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. The MDAQMD states that in general, for GHG emissions, the significant emission threshold of 100,000 Tons CO_2e (90,718.5 MT CO_2e) per year is sufficient to determine if additional analysis is required (11).

As previously shown in Table 10, the Project will result in an approximate net decrease of 1,670.85 $MTCO_2e$ per year; the proposed Project would not exceed the screening threshold of 90,718.5 $MTCO_2e$ per year. This would be considered a less than significant impact.

GHG IMPACTS – CONSISTENCY WITH THRESHOLD NO. 2

Would the Project have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Pursuant to 15604.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (26).

The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas (GHG) emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon (27).

Finally, the Project is consistent with the general plan land use designation, density, building intensity, and applicable policies specified for the Project area in SCAG's Sustainable Community Strategy/ Regional Transportation Plan, which pursuant to SB 375 calls for the integration of transportation, land-use and housing policies to plan for achievement of the GHG-emissions target for the region. Thus, a less than significant impact related to GHG emissions from Project construction and operation would occur and no mitigation is required.

PROJECT ENERGY ANALYSIS

Standards of Significance

This report analyzes the project's anticipated energy use during construction and operations to determine if the Project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

CONSTRUCTION ENERGY DEMANDS

CONSTRUCTION EQUIPMENT ELECTRICITY USAGE EMISSIONS

The *2024 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of $2.66, which was used to calculate the Project's total construction power cost (28).

As shown in Table 11, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $75,940.35.

TABLE 11: PROJECT CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF of building per month of construction)	Total Building Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Unrefrigerated Warehouse-No Rail	$2.66	494	22	$28,908.88
Parking Lot	$2.66	169.013	22	$9,890.64
Other Asphalt Surfaces	$2.66	634.669	22	$37,140.83
TOTAL PROJECT CONSTRUCTION POWER COST				**$75,940.35**

As shown in Table 12, the total electricity usage from on-site Project construction related activities is estimated to be approximately 506,269 kWh.

TABLE 12: PROJECT CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Unrefrigerated Warehouse-No Rail	$0.15	192,726
Parking Lot	$0.15	65,938
Other Asphalt Surfaces	$0.15	247,606
TOTAL PROJECT CONSTURCTION ELECTRICTY USAGE (kWh)		***506,269***

CONSTRUCTION EQUIPMENT FUEL ESTIMATES

As presented in Table 13, Project construction activities would consume an estimated 222,184 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT, the construction worker trips would generate an estimated 1,888,110 VMT. Based on CalEEMod methodology, it is assumed that 50% of all vendor trips are from LDA, 25% are from LDT1, and 25% are from LDT2. Data regarding Project related construction worker trips were based on CalEEMod defaults for the land use type and project location which are also utilized within the air quality assessment and CalEEMod outputs contained herein.

As shown in Table 14, it is estimated that 68,241 gallons of fuel will be consumed related to construction worker trips during full construction of the proposed Project. Project construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 13: PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTIONS ESTIMATES

Activity/Duration	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Site Preparation	20	Rubber Tired Dozers	367	2	8	0.4	2,349	2,539
		Crawler Tractors	87	2	8	0.43	599	647
Grading	60	Excavators	36	2	8	0.38	219	710
		Graders	148	3	8	0.41	1,456	4,723
		Rubber Tired Dozers	367	3	8	0.40	3,523	11,427
		Scrapers	423	12	8	0.48	19,492	63,217
		Crawler Tractors	87	5	8	0.43	1,496	4,853
Building Construction	400	Cranes	367	2	8	0.29	1,703	36,819
		Forklifts	82	6	8	0.20	787	17,021
		Generator Sets	14	2	8	0.74	166	3,584
		Welders	46	2	8	0.45	331	7,161
		Crawler Tractors	87	6	8	0.43	1,796	38,826
Paving	200	Pavers	81	4	8	0.42	1,089	11,769
		Paving Equipment	89	4	8	0.36	1,025	11,084
		Rollers	36	4	8	0.38	438	4,733
Architectural Coating	200	Air Compressors	37	2	8	0.48	284	3,072
							CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)	**222,184**

TABLE 14: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy	Estimated Fuel Consumption (gallons)
2024	LDA						
	Site Preparation	20	5	18.5	1,850	31.22	59
	Grading	60	32	18.5	35,520	31.22	1,138
	Building Construction	181	104	18.5	348,244	31.22	11,155
	LDT1						
	Site Preparation	20	3	18.5	1,110	24.20	46
	Grading	60	16	18.5	17,760	24.20	734
	Building Construction	181	52	18.5	174,122	24.20	7,195
	LDT2						
	Site Preparation	20	3	18.5	1,110	24.10	46
	Grading	60	16	18.5	17,760	24.10	737
	Building Construction	181	52	18.5	174,122	24.10	7,226
2025	LDA						
	Building Construction	219	104	18.5	421,356	32.23	13,072
	Paving	200	15	18.5	55,500	32.23	1,722
	Architectural Coating	200	21	18.5	77,700	32.23	2,411
	LDT1						
	Building Construction	219	52	18.5	210,678	24.70	8,530
	Paving	200	8	18.5	29,600	24.70	1,198
	Architectural Coating	200	11	18.5	40,700	24.70	1,648
	LDT2						
	Building Construction	219	52	18.5	210,678	24.81	8,492
	Paving	200	8	18.5	29,600	24.81	1,193
	Architectural Coating	200	11	18.5	40,700	24.81	1,640
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION							**68,241**

CONSTRUCTION VENDOR FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips would generate an estimated 284,376 VMT. It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT) and 50% of vendor trips are from heavy-heavy duty trucks (HHDT). As shown in Table 15, it is estimated that 41,603 gallons of fuel will be consumed related to construction vendor trips (medium duty trucks) during full construction of the Project. Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 15: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Vendor/ Hauling Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2024	MHDT						
	Site Preparation	20	2	10.2	408	6.19	66
	Grading	60	5	10.2	3,060	6.19	494
	Building Construction	181	34	10.2	62,771	6.19	10,134
	HHDT (Vendor)						
	Site Preparation	20	2	10.2	408	7.43	55
	Grading	60	5	10.2	3,060	7.43	412
	Building Construction	181	34	10.2	62,771	7.43	8,446
2025	MHDT						
	Building Construction	219	34	10.2	75,949	6.32	12,014
	HHDT (Vendor)						
	Building Construction	219	34	10.2	75,949	7.61	9,983
TOTAL CONSTRUCTION VENDOR FUEL CONSUMPTION							**41,603**

CONSTRUCTION ENERGY DEMANDS SUMMARY

Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Best Available Control Measures (BACMs) inform construction equipment operators of this requirement.

With regard to construction worker trips, the 2023 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

OPERATIONAL ENERGY DEMANDS

PRO-RATA SHARE OF 2009 CERTIFIED GENERAL PLAN EIR (GPEIR) Transportation Energy Demands

The estimated transportation energy demands associated with the Pro-Rata share of adopted Industrial land use for the subject site considered in the 2009 EIR are summarized on Table 16. The annual VMT for the GPEIR Pro-Rata Project Allocation was calculated based on CalEEMod outputs in Attachment B.

TABLE 16: PRO-RATA SHARE OF 2009 GENERAL PLAN EIR-GENERATED VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Source	Annual VMT	Estimated Annual Fuel Consumption (gallons)
GPEIR PRO RATA ALLOCATION PROJECT SITE (ALL VEHICLES)	**5,292,658**	**448,796**

Proposed Project Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (29). The estimated transportation energy demands associated with the Proposed Project are summarized on Table 17. The annual VMT for the Proposed Project was calculated based on CalEEMod outputs in Attachment A.

TABLE 17: TOTAL PROJECT-GENERATED VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Source	Annual VMT	Estimated Annual Fuel Consumption (gallons)
TOTAL PROPOSED CORDOVA PROJECT (ALL VEHICLES)	**5,235,181**	**433,885**

Net Transportation Energy Demands

As summarized on Table 18, the Project will result in a net decrease of 57,477 annual VMT and net decrease in annual fuel consumption of 14,911 gallons of fuel.

TABLE 18: NET-GENERATED VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION COMPARISION WITH GPEIR PRO RATA ALLOCATION

Source	Annual VMT	Estimated Annual Fuel Consumption (GPY)
Proposed Cordova Site (All Vehicles)	5,235,181	433,885
GPEIR Pro Rata Allocation CordovaProject Site (All Vehicles)	5,292,658	448,796
Net (All Vehicles)	**-57,477**	**-14,911**

The comparative analysis in Table 18 shows the proposed Project will use 14,911 fewer Gallons Per Year than the 448,796 GPEIR Estimated Annual Fuel Pro Rata Allocation for the Project Area, i.e., 3% less than the total Project Allocation.

PRO-RATA SHARE OF 2009 GENERAL PLAN EIR Energy Demands

The estimated energy demands associated with the Pro-Rata share of GPEIR Industrial land use for the subject site considered in the GPEIR are summarized in Table 19.

TABLE 19: PRO-RATA SHARE OF 2009 GENERAL PLAN EIR ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Source	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
GPEIR PRO RATA ALLOCATION CORDOVA SITE TOTAL PROJECT ENERGY DEMAND	**29,562,936**	**5,187,000**

Proposed Project Energy Demands

The estimated energy demands associated with the Proposed Project are summarized in Table 20. The proposed Project will not include natural gas as a part of its project design.

TABLE 20: TOTAL PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Source	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
TOTAL CORDOVA PROJECT ENERGY DEMAND	**0**	**2,429,656**

Net Project Energy Demands

As shown on Table 21, the Project operational energy demands will result in a net decrease in 29,562,936 kBTU of annual natural gas and net decrease in 2,757,344 annual electricity demand compared to the Pro-Rata share of adopted Industrial land use for the subject site considered in the GPEIR.

TABLE 21: NET ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Source	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Proposed Cordova Site Energy Demand	0	2,429,656
GPEIR Pro Rata Allocation Cordova Site Energy Demand	29,562,936	5,187,000
Net Energy Demand	**-29,562,936**	**-2,757,344**

OPERATIONAL ENERGY DEMANDS SUMMARY

The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial land use projects of similar scale and configuration.

The Project will comply with the applicable Title 24 standards which will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

The Project would not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. As supported by the preceding analyses, Project operations would not result in the inefficient, wasteful, or unnecessary consumption of energy.

ENERGY IMPACT 1

Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. In fact, the Project would generate less energy demand than what is allowed by the current land use designation as evaluated in the GPEIR. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities beyond what would have been required based on the land uses assumed in the GPEIR. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

ENERGY IMPACT 2

Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The Project will not conflict with any applicable state or local plans. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial land use projects of similar scale and configuration.

The Project will comply with the applicable Title 24 standards which will ensure that the Project energy demands will not be inefficient, wasteful, or otherwise unnecessary.

The existing building uses electricity for uses including heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; lighting; and on-site equipment and appliances. The proposed project would comply with the most current Building Energy Efficiency Standards, including the California Code of Regulations (CCR) Title 24, Part 11: California Green Building Standards. The project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and would not conflict with or obstruct a State or local plan for energy efficiency. Impacts would be less than significant.

CONCLUSION

Results of the assessment indicate that the Project is not anticipated to result in any new impacts beyond those previously identified in the GPEIR for the same land area, and in fact the Project would result in fewer emissions associated with air quality, GHG, and energy compared to the GPEIR Project Pro Rata Allocation if the Project were developed consistent with the designated land uses evaluated in the GPEIR.

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ATTACHMENT A

CALEEMOD PROPOSED PROJECT EMISSIONS MODEL OUTPUTS

15428 - AV3PLC Cordova Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15428 - AV3PLC Cordova
Construction Start Date	1/2/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00
Precipitation (days)	12.4
Location	34.601219, -117.170978
County	San Bernardino-Mojave Desert
City	Apple Valley
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5160
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	494	1000sqft	11.3	494,000	0.00	—	—	PC

Parking Lot	431	Space	3.88	0.00	0.00	—	—	—
Other Asphalt Surfaces	14.6	Acre	14.6	0.00	0.00	—	—	—
User Defined Industrial	494	User Defined Unit	0.00	0.00	0.00	—	—	Trucks

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.1	19.9	81.8	164	0.28	2.58	10.4	11.1	2.38	3.32	3.95	—	31,850	31,850	1.28	0.50	20.8	31,983
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.8	19.6	81.9	162	0.28	2.58	10.4	11.1	2.38	3.32	3.95	—	31,743	31,743	1.28	0.50	0.54	31,872
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.7	11.0	33.7	51.3	0.08	1.51	3.54	4.75	1.39	1.04	2.16	—	10,690	10,690	0.40	0.30	5.31	10,785
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.14	2.01	6.15	9.36	0.02	0.28	0.65	0.87	0.25	0.19	0.39	—	1,770	1,770	0.07	0.05	0.88	1,786

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	6.01	5.14	81.8	164	0.28	2.08	10.4	11.1	1.92	3.32	3.95	—	31,850	31,850	1.28	0.44	18.0	31,983
2025	21.1	19.9	52.2	78.8	0.10	2.58	4.23	6.81	2.38	1.02	3.39	—	15,225	15,225	0.53	0.50	20.8	15,408
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	5.88	5.00	81.9	162	0.28	2.08	10.4	11.1	1.92	3.32	3.95	—	31,743	31,743	1.28	0.44	0.47	31,872
2025	20.8	19.6	52.4	71.2	0.10	2.58	4.23	6.81	2.38	1.02	3.39	—	14,760	14,760	0.54	0.50	0.54	14,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.79	3.31	33.7	51.3	0.08	1.21	3.54	4.75	1.12	1.04	2.16	—	10,690	10,690	0.40	0.27	4.20	10,785
2025	11.7	11.0	30.6	42.4	0.06	1.51	2.47	3.98	1.39	0.59	1.98	—	8,702	8,702	0.32	0.30	5.31	8,804
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.69	0.60	6.15	9.36	0.02	0.22	0.65	0.87	0.20	0.19	0.39	—	1,770	1,770	0.07	0.05	0.70	1,786
2025	2.14	2.01	5.59	7.74	0.01	0.28	0.45	0.73	0.25	0.11	0.36	—	1,441	1,441	0.05	0.05	0.88	1,458

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	19.3	18.5	28.4	69.6	0.33	0.58	15.2	15.7	0.55	3.94	4.48	469	37,127	37,596	48.1	4.45	104	40,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.2	14.7	29.9	37.7	0.32	0.54	15.2	15.7	0.52	3.94	4.45	469	36,175	36,644	48.1	4.47	2.71	39,180

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.1	15.6	22.2	40.2	0.24	0.42	11.0	11.4	0.39	2.86	3.25	469	27,449	27,918	48.0	3.43	33.0	30,172
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.93	2.84	4.05	7.33	0.04	0.08	2.01	2.09	0.07	0.52	0.59	77.7	4,544	4,622	7.95	0.57	5.46	4,995

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.15	3.68	28.2	48.1	0.33	0.54	15.2	15.7	0.52	3.94	4.45	—	34,089	34,089	0.34	3.88	104	35,359
Area	15.1	14.8	0.18	21.5	< 0.005	0.04	—	0.04	0.03	—	0.03	—	88.4	88.4	< 0.005	< 0.005	—	88.7
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	2,321	2,321	0.22	0.03	—	2,334
Water	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Total	19.3	18.5	28.4	69.6	0.33	0.58	15.2	15.7	0.55	3.94	4.48	469	37,127	37,596	48.1	4.45	104	40,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.86	3.39	29.9	37.7	0.32	0.54	15.2	15.7	0.52	3.94	4.45	—	33,226	33,226	0.35	3.90	2.71	34,400
Area	11.3	11.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	2,321	2,321	0.22	0.03	—	2,334
Water	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Total	15.2	14.7	29.9	37.7	0.32	0.54	15.2	15.7	0.52	3.94	4.45	469	36,175	36,644	48.1	4.47	2.71	39,180
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	2.85	2.51	22.1	29.6	0.23	0.40	11.0	11.4	0.38	2.86	3.24	—	24,456	24,456	0.26	2.86	33.0	25,348
Area	13.2	13.1	0.09	10.6	< 0.005	0.02	—	0.02	0.01	—	0.01	—	43.6	43.6	< 0.005	< 0.005	—	43.7
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	2,321	2,321	0.22	0.03	—	2,334
Water	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Waste	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Total	16.1	15.6	22.2	40.2	0.24	0.42	11.0	11.4	0.39	2.86	3.25	469	27,449	27,918	48.0	3.43	33.0	30,172
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.52	0.46	4.04	5.40	0.04	0.07	2.01	2.08	0.07	0.52	0.59	—	4,049	4,049	0.04	0.47	5.46	4,197
Area	2.41	2.38	0.02	1.93	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.24
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	384	384	0.04	< 0.005	—	386
Water	—	—	—	—	—	—	—	—	—	—	—	36.2	104	140	3.73	0.09	—	260
Waste	—	—	—	—	—	—	—	—	—	—	—	41.4	0.00	41.4	4.14	0.00	—	145
Total	2.93	2.84	4.05	7.33	0.04	0.08	2.01	2.09	0.07	0.52	0.59	77.7	4,544	4,622	7.95	0.57	5.46	4,995

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.30	2.78	26.4	21.9	0.03	1.36	—	1.36	1.25	—	1.25	—	3,454	3,454	0.14	0.03	—	3,465

Dust From Material Movement	—	—	—	—	—	—	3.68	3.68	—	1.78	1.78	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.45	1.20	< 0.005	0.07	—	0.07	0.07	—	0.07	—	189	189	0.01	< 0.005	—	190
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.26	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.3	31.3	< 0.005	< 0.005	—	31.4
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	< 0.005	0.02	133

Vendor	< 0.005	< 0.005	0.11	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	97.5	97.5	< 0.005	0.01	0.01	101
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.44	7.44	< 0.005	< 0.005	0.01	7.54
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.34	5.34	< 0.005	< 0.005	0.01	5.55
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.23	1.23	< 0.005	< 0.005	< 0.005	1.25
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.92
Hauling	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	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.77	81.1	158	0.28	0.63	—	0.63	0.63	—	0.63	—	30,595	30,595	1.24	0.25	—	30,699
Dust From Material Movement	—	—	—	—	—	—	9.52	9.52	—	3.10	3.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.80	3.77	81.1	158	0.28	0.63	—	0.63	0.63	—	0.63	—	30,595	30,595	1.24	0.25	—	30,699
Dust From Material Movement	—	—	—	—	—	—	9.52	9.52	—	3.10	3.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.62	13.3	26.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,029	5,029	0.20	0.04	—	5,046
Dust From Material Movement	—	—	—	—	—	—	1.57	1.57	—	0.51	0.51	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.11	2.43	4.74	0.01	0.02	—	0.02	0.02	—	0.02	—	833	833	0.03	0.01	—	836
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.36	0.33	5.64	0.00	0.00	0.82	0.82	0.00	0.19	0.19	—	931	931	0.04	0.03	3.65	945
Vendor	0.02	0.01	0.34	0.15	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	325	325	< 0.005	0.04	0.87	338

Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.35	0.32	0.39	3.79	0.00	0.00	0.82	0.82	0.00	0.19	0.19	—	824	824	0.04	0.03	0.09	834
Vendor	0.02	0.01	0.36	0.15	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	325	325	< 0.005	0.04	0.02	338
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.70	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	0.01	0.26	141
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	53.4	53.4	< 0.005	0.01	0.06	55.5
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.1	23.1	< 0.005	< 0.005	0.04	23.4
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.84	8.84	< 0.005	< 0.005	0.01	9.20
Hauling	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	0.00

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.61	3.87	34.2	32.0	0.05	2.05	—	2.05	1.89	—	1.89	—	5,611	5,611	0.23	0.05	—	5,630
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.61	3.87	34.2	32.0	0.05	2.05	—	2.05	1.89	—	1.89	—	5,611	5,611	0.23	0.05	—	5,630
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.28	1.91	16.9	15.9	0.03	1.02	—	1.02	0.94	—	0.94	—	2,778	2,778	0.11	0.02	—	2,787
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	3.09	2.89	< 0.005	0.19	—	0.19	0.17	—	0.17	—	460	460	0.02	< 0.005	—	462
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.29	1.19	1.10	18.7	0.00	0.00	2.71	2.71	0.00	0.64	0.64	—	3,092	3,092	0.13	0.10	12.1	3,137
Vendor	0.11	0.08	2.29	1.03	0.02	0.03	0.58	0.61	0.03	0.16	0.19	—	2,207	2,207	< 0.005	0.29	5.95	2,300
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.17	1.06	1.28	12.6	0.00	0.00	2.71	2.71	0.00	0.64	0.64	—	2,735	2,735	0.13	0.10	0.31	2,770

Vendor	0.10	0.08	2.44	1.05	0.02	0.03	0.58	0.61	0.03	0.16	0.19	—	2,210	2,210	< 0.005	0.29	0.15	2,297
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.53	0.64	6.99	0.00	0.00	1.33	1.33	0.00	0.31	0.31	—	1,394	1,394	0.07	0.05	2.59	1,414
Vendor	0.05	0.04	1.21	0.51	0.01	0.02	0.29	0.30	0.02	0.08	0.09	—	1,093	1,093	< 0.005	0.14	1.27	1,138
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.12	1.28	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	231	231	0.01	0.01	0.43	234
Vendor	0.01	0.01	0.22	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	< 0.005	0.02	0.21	188
Hauling	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	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.22	3.54	31.4	31.7	0.05	1.78	—	1.78	1.64	—	1.64	—	5,610	5,610	0.23	0.05	—	5,629
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.22	3.54	31.4	31.7	0.05	1.78	—	1.78	1.64	—	1.64	—	5,610	5,610	0.23	0.05	—	5,629

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.54	2.13	18.8	19.0	0.03	1.07	—	1.07	0.98	—	0.98	—	3,371	3,371	0.14	0.03	—	3,382
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.39	3.44	3.47	0.01	0.20	—	0.20	0.18	—	0.18	—	558	558	0.02	< 0.005	—	560
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.24	1.14	1.01	17.2	0.00	0.00	2.71	2.71	0.00	0.64	0.64	—	3,027	3,027	0.12	0.10	11.1	3,071
Vendor	0.09	0.08	2.20	0.96	0.02	0.03	0.58	0.61	0.03	0.16	0.19	—	2,166	2,166	< 0.005	0.29	5.93	2,259
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.04	0.93	1.10	11.6	0.00	0.00	2.71	2.71	0.00	0.64	0.64	—	2,679	2,679	0.13	0.10	0.29	2,713
Vendor	0.08	0.08	2.33	0.98	0.02	0.03	0.58	0.61	0.03	0.16	0.19	—	2,168	2,168	< 0.005	0.29	0.15	2,255
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.63	0.56	0.71	7.77	0.00	0.00	1.62	1.62	0.00	0.38	0.38	—	1,657	1,657	0.08	0.06	2.87	1,680
Vendor	0.05	0.05	1.40	0.58	0.01	0.02	0.35	0.37	0.02	0.10	0.11	—	1,302	1,302	< 0.005	0.17	1.54	1,355

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.13	1.42	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	274	274	0.01	0.01	0.48	278
Vendor	0.01	0.01	0.26	0.11	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	216	216	< 0.005	0.03	0.25	224
Hauling	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	0.00

3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.90	1.60	14.9	20.0	0.03	0.70	—	0.70	0.64	—	0.64	—	3,023	3,023	0.12	0.02	—	3,033
Paving	0.24	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.90	1.60	14.9	20.0	0.03	0.70	—	0.70	0.64	—	0.64	—	3,023	3,023	0.12	0.02	—	3,033
Paving	0.24	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.04	0.88	8.17	10.9	0.02	0.38	—	0.38	0.35	—	0.35	—	1,656	1,656	0.07	0.01	—	1,662
Paving	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.49	2.00	< 0.005	0.07	—	0.07	0.06	—	0.06	—	274	274	0.01	< 0.005	—	275
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.15	2.49	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	438	438	0.02	0.01	1.60	444
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.67	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	387	387	0.02	0.01	0.04	392
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.02	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	219	219	0.01	0.01	0.38	222
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.01	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.2	36.2	< 0.005	< 0.005	0.06	36.7
Vendor	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	0.00
Hauling	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	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.34	2.35	3.04	< 0.005	0.07	—	0.07	0.07	—	0.07	—	356	356	0.01	< 0.005	—	357
Architectural Coatings	12.6	12.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.34	2.35	3.04	< 0.005	0.07	—	0.07	0.07	—	0.07	—	356	356	0.01	< 0.005	—	357
Architectural Coatings	12.6	12.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.29	1.67	< 0.005	0.04	—	0.04	0.04	—	0.04	—	195	195	0.01	< 0.005	—	196
Architectural Coatings	6.89	6.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.24	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.3	32.3	< 0.005	< 0.005	—	32.4
Architectural Coatings	1.26	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.20	3.45	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	605	605	0.02	0.02	2.21	614
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.31	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	536	536	0.03	0.02	0.06	543
Vendor	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	0.00

Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.13	1.42	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	302	302	0.01	0.01	0.52	306
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.26	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.0	50.0	< 0.005	< 0.005	0.09	50.7
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	3.25	2.93	1.98	39.9	0.08	0.03	7.30	7.34	0.03	1.84	1.87	—	7,984	7,984	0.27	0.19	28.4	8,075
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00

User Defined Industrial	0.90	0.75	26.3	8.18	0.25	0.51	7.86	8.37	0.49	2.10	2.58	—	26,105	26,105	0.07	3.69	76.0	27,284
Total	4.15	3.68	28.2	48.1	0.33	0.54	15.2	15.7	0.52	3.94	4.45	—	34,089	34,089	0.34	3.88	104	35,359
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	3.00	2.68	2.21	29.5	0.07	0.03	7.30	7.34	0.03	1.84	1.87	—	7,108	7,108	0.28	0.20	0.74	7,176
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.86	0.71	27.7	8.21	0.25	0.51	7.86	8.37	0.49	2.10	2.58	—	26,118	26,118	0.07	3.70	1.97	27,224
Total	3.86	3.39	29.9	37.7	0.32	0.54	15.2	15.7	0.52	3.94	4.45	—	33,226	33,226	0.35	3.90	2.71	34,400
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.40	0.36	0.31	4.31	0.01	< 0.005	0.97	0.97	< 0.005	0.24	0.25	—	885	885	0.03	0.03	1.49	895
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.12	0.10	3.73	1.09	0.03	0.07	1.04	1.11	0.07	0.28	0.34	—	3,164	3,164	0.01	0.45	3.98	3,301
Total	0.52	0.46	4.04	5.40	0.04	0.07	2.01	2.08	0.07	0.52	0.59	—	4,049	4,049	0.04	0.47	5.46	4,197

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,179	2,179	0.21	0.03	—	2,192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	141	141	0.01	< 0.005	—	142
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,321	2,321	0.22	0.03	—	2,334
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,179	2,179	0.21	0.03	—	2,192
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	141	141	0.01	< 0.005	—	142
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,321	2,321	0.22	0.03	—	2,334
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	361	361	0.03	< 0.005	—	363
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	23.4	23.4	< 0.005	< 0.005	—	23.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	384	384	0.04	< 0.005	—	386

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	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
Parking Lot	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
Other Asphalt Surfaces	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

User Defined Industrial	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
Total	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

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.6	10.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.69	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.82	3.52	0.18	21.5	< 0.005	0.04	—	0.04	0.03	—	0.03	—	88.4	88.4	< 0.005	< 0.005	—	88.7
Total	15.1	14.8	0.18	21.5	< 0.005	0.04	—	0.04	0.03	—	0.03	—	88.4	88.4	< 0.005	< 0.005	—	88.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.6	10.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.69	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11.3	11.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.94	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.34	0.32	0.02	1.93	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.24
Total	2.41	2.38	0.02	1.93	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.24

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	219	628	847	22.5	0.54	—	1,571
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.2	104	140	3.73	0.09	—	260
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.2	104	140	3.73	0.09	—	260

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	250	0.00	250	25.0	0.00	—	876
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	41.4	0.00	41.4	4.14	0.00	—	145
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.4	0.00	41.4	4.14	0.00	—	145

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/2/2024	1/29/2024	5.00	20.0	20
Grading	Grading	1/30/2024	4/22/2024	5.00	60.0	45
Building Construction	Building Construction	4/23/2024	11/3/2025	5.00	400	440
Paving	Paving	1/28/2025	11/3/2025	5.00	200	35
Architectural Coating	Architectural Coating	1/28/2025	11/3/2025	5.00	200	35

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	3.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Interim	12.0	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Tier 4 Interim	5.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	2.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	6.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	2.00	8.00	46.0	0.45

Building Construction	Crawler Tractors	Diesel	Average	6.00	8.00	87.0	0.43
Paving	Pavers	Diesel	Average	4.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	4.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	4.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	2.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	10.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	3.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	62.5	18.5	LDA,LDT1,LDT2
Grading	Vendor	10.0	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	207	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	68.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	30.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	41.5	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	741,000	247,000	48,218

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	40.0	0.00	—
Grading	—	—	1,050	0.00	—
Paving	0.00	0.00	0.00	0.00	18.4

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	3.88	100%
Other Asphalt Surfaces	14.6	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	349	0.03	< 0.005
2025	0.00	349	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	548	47.9	19.3	146,334	10,535	921	370	2,813,922
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	298	26.2	10.4	79,568	9,065	797	316	2,421,261

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	741,000	247,000	48,218

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,281,639	349	0.0330	0.0040	0.00
Parking Lot	148,017	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	114,237,500	0.00

Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	464	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	34.9	annual days of extreme heat
Extreme Precipitation	1.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.99	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.9
AQ-PM	3.58
AQ-DPM	2.25
Drinking Water	78.9
Lead Risk Housing	30.8

Pesticides	0.00
Toxic Releases	15.4
Traffic	3.76
Effect Indicators	—
CleanUp Sites	96.1
Groundwater	26.4
Haz Waste Facilities/Generators	1.80
Impaired Water Bodies	0.00
Solid Waste	92.8
Sensitive Population	—
Asthma	90.3
Cardio-vascular	96.4
Low Birth Weights	86.0
Socioeconomic Factor Indicators	—
Education	64.3
Housing	18.9
Linguistic	1.81
Poverty	63.5
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	27.26806108
Employed	1.514179392
Median HI	33.8380598
Education	—

Bachelor's or higher	25.15077634
High school enrollment	100
Preschool enrollment	13.60195047
Transportation	—
Auto Access	36.01950468
Active commuting	7.724881304
Social	—
2-parent households	69.96022071
Voting	57.46182471
Neighborhood	—
Alcohol availability	88.65648659
Park access	25.95919415
Retail density	2.181444886
Supermarket access	15.69357115
Tree canopy	0.038496086
Housing	—
Homeownership	82.99756191
Housing habitability	23.09765174
Low-inc homeowner severe housing cost burden	48.87719748
Low-inc renter severe housing cost burden	20.73655845
Uncrowded housing	25.95919415
Health Outcomes	—
Insured adults	29.96278712
Arthritis	0.0
Asthma ER Admissions	15.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0

Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	3.7
Cognitively Disabled	26.7
Physically Disabled	6.2
Heart Attack ER Admissions	6.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	45.3
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	19.0
Elderly	45.2
English Speaking	86.6
Foreign-born	12.2
Outdoor Workers	8.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	97.6
Traffic Density	1.2

Traffic Access	23.0
Other Indices	—
Hardship	68.2
Other Decision Support	—
2016 Voting	69.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0
Healthy Places Index Score for Project Location (b)	15.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Schedule based on the 2025 Opening Year
Construction: Off-Road Equipment	Equipment based on information provided by the Applicant

Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Operations: Vehicle Data	Trip characteristics based on information provided in the Trip Generation assessment.
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks.
Operations: Energy Use	Per client data, Project will not utilize natural gas.

ATTACHMENT B

CALEEMOD GENERAL PLAN ADOPTED OPERATIONAL EMISSIONS MODEL OUTPUTS

15428 - AV3PLC Cordova (General Plan Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	15428 - AV3PLC Cordova (General Plan Operations)
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00
Precipitation (days)	12.4
Location	34.601219, -117.170978
County	San Bernardino-Mojave Desert
City	Apple Valley
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5160
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	494	1000sqft	11.3	494,000	0.00	—	—	PC

Other Asphalt Surfaces	18.4	Acre	18.4	0.00	0.00	—	—	—
User Defined Industrial	494	User Defined Unit	0.00	0.00	0.00	—	—	Trucks

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.5	19.2	38.2	80.3	0.39	1.21	15.3	16.5	1.17	3.98	5.15	32.6	49,802	49,835	5.03	4.16	109	51,310
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.3	15.4	39.7	47.5	0.38	1.17	15.3	16.5	1.14	3.98	5.12	32.6	48,814	48,847	5.03	4.18	2.83	50,222
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.1	16.2	31.6	49.3	0.29	1.03	11.1	12.2	1.01	2.89	3.90	32.6	39,801	39,833	4.93	3.11	34.5	40,917
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.13	2.95	5.76	9.00	0.05	0.19	2.03	2.22	0.18	0.53	0.71	5.40	6,589	6,595	0.82	0.51	5.71	6,774

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.44	3.93	30.0	52.2	0.34	0.56	15.3	15.9	0.54	3.98	4.52	—	35,199	35,199	0.37	4.01	109	36,514
Area	15.1	14.8	0.18	21.5	< 0.005	0.04	—	0.04	0.03	—	0.03	—	88.4	88.4	< 0.005	< 0.005	—	88.7
Energy	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	14,429	14,429	1.31	0.07	—	14,484
Water	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215
Waste	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
Total	20.5	19.2	38.2	80.3	0.39	1.21	15.3	16.5	1.17	3.98	5.15	32.6	49,802	49,835	5.03	4.16	109	51,310
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.12	3.62	31.8	40.8	0.33	0.56	15.3	15.9	0.54	3.98	4.52	—	34,300	34,300	0.38	4.04	2.83	35,514
Area	11.3	11.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	14,429	14,429	1.31	0.07	—	14,484
Water	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215
Waste	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
Total	16.3	15.4	39.7	47.5	0.38	1.17	15.3	16.5	1.14	3.98	5.12	32.6	48,814	48,847	5.03	4.18	2.83	50,222
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.05	2.68	23.5	32.0	0.24	0.41	11.1	11.5	0.39	2.89	3.28	—	25,242	25,242	0.28	2.96	34.5	26,165
Area	13.2	13.1	0.09	10.6	< 0.005	0.02	—	0.02	0.01	—	0.01	—	43.6	43.6	< 0.005	< 0.005	—	43.7
Energy	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	14,429	14,429	1.31	0.07	—	14,484
Water	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215
Waste	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
Total	17.1	16.2	31.6	49.3	0.29	1.03	11.1	12.2	1.01	2.89	3.90	32.6	39,801	39,833	4.93	3.11	34.5	40,917
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.56	0.49	4.29	5.85	0.04	0.08	2.03	2.11	0.07	0.53	0.60	—	4,179	4,179	0.05	0.49	5.71	4,332
Area	2.41	2.38	0.02	1.93	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.24
Energy	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	2,389	2,389	0.22	0.01	—	2,398

Water	—	—	—	—	—	—	—	—	—	—	—	4.96	14.2	19.2	0.51	0.01	—	35.6
Waste	—	—	—	—	—	—	—	—	—	—	—	0.44	0.00	0.44	0.04	0.00	—	1.54
Total	3.13	2.95	5.76	9.00	0.05	0.19	2.03	2.22	0.18	0.53	0.71	5.40	6,589	6,595	0.82	0.51	5.71	6,774

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	3.47	3.12	2.21	43.3	0.08	0.03	7.39	7.43	0.03	1.86	1.89	—	8,287	8,287	0.29	0.20	32.0	8,386
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.97	0.81	27.8	8.90	0.26	0.53	7.93	8.46	0.51	2.12	2.62	—	26,912	26,912	0.08	3.81	77.2	28,127
Total	4.44	3.93	30.0	52.2	0.34	0.56	15.3	15.9	0.54	3.98	4.52	—	35,199	35,199	0.37	4.01	109	36,514
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	3.20	2.85	2.47	31.9	0.07	0.03	7.39	7.43	0.03	1.86	1.89	—	7,374	7,374	0.30	0.22	0.83	7,448

Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.92	0.77	29.3	8.91	0.26	0.53	7.93	8.46	0.51	2.12	2.62	—	26,925	26,925	0.08	3.82	2.00	28,067
Total	4.12	3.62	31.8	40.8	0.33	0.56	15.3	15.9	0.54	3.98	4.52	—	34,300	34,300	0.38	4.04	2.83	35,514
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.43	0.38	0.34	4.67	0.01	< 0.005	0.98	0.98	< 0.005	0.25	0.25	—	918	918	0.04	0.03	1.67	929
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.13	0.10	3.95	1.18	0.03	0.07	1.05	1.12	0.07	0.28	0.35	—	3,261	3,261	0.01	0.46	4.04	3,403
Total	0.56	0.49	4.29	5.85	0.04	0.08	2.03	2.11	0.07	0.53	0.60	—	4,179	4,179	0.05	0.49	5.71	4,332

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	4,954	4,954	0.47	0.06	—	4,983

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,954	4,954	0.47	0.06	—	4,983
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	4,954	4,954	0.47	0.06	—	4,983
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,954	4,954	0.47	0.06	—	4,983
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	820	820	0.08	0.01	—	825
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	820	820	0.08	0.01	—	825

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	9,474	9,474	0.84	0.02	—	9,501
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	9,474	9,474	0.84	0.02	—	9,501
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	9,474	9,474	0.84	0.02	—	9,501
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.87	0.44	7.94	6.67	0.05	0.60	—	0.60	0.60	—	0.60	—	9,474	9,474	0.84	0.02	—	9,501
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,569	1,569	0.14	< 0.005	—	1,573
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	0.16	0.08	1.45	1.22	0.01	0.11	—	0.11	0.11	—	0.11	—	1,569	1,569	0.14	< 0.005	—	1,573

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.6	10.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.69	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.82	3.52	0.18	21.5	< 0.005	0.04	—	0.04	0.03	—	0.03	—	88.4	88.4	< 0.005	< 0.005	—	88.7
Total	15.1	14.8	0.18	21.5	< 0.005	0.04	—	0.04	0.03	—	0.03	—	88.4	88.4	< 0.005	< 0.005	—	88.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	10.6	10.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.69	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11.3	11.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.94	1.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.34	0.32	0.02	1.93	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.24
Total	2.41	2.38	0.02	1.93	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.24

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.9	86.0	116	3.08	0.07	—	215
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	4.96	14.2	19.2	0.51	0.01	—	35.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.96	14.2	19.2	0.51	0.01	—	35.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.66	0.00	2.66	0.27	0.00	—	9.31

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.44	0.00	0.44	0.04	0.00	—	1.54
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.44	0.00	0.44	0.04	0.00	—	1.54

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	555	47.9	19.3	148,138	10,668	921	370	2,848,595
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	300	26.2	10.4	80,212	9,152	798	316	2,444,065

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	741,000	247,000	48,221

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	5,187,000	349	0.0330	0.0040	29,562,936
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	15,628,433	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	4.94	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	34.9	annual days of extreme heat
Extreme Precipitation	1.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.99	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.9
AQ-PM	3.58
AQ-DPM	2.25
Drinking Water	78.9
Lead Risk Housing	30.8
Pesticides	0.00
Toxic Releases	15.4
Traffic	3.76
Effect Indicators	—
CleanUp Sites	96.1
Groundwater	26.4
Haz Waste Facilities/Generators	1.80
Impaired Water Bodies	0.00
Solid Waste	92.8
Sensitive Population	—
Asthma	90.3
Cardio-vascular	96.4
Low Birth Weights	86.0
Socioeconomic Factor Indicators	—
Education	64.3
Housing	18.9
Linguistic	1.81
Poverty	63.5
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	27.26806108
Employed	1.514179392
Median HI	33.8380598
Education	—
Bachelor's or higher	25.15077634
High school enrollment	100
Preschool enrollment	13.60195047
Transportation	—
Auto Access	36.01950468
Active commuting	7.724881304
Social	—
2-parent households	69.96022071
Voting	57.46182471
Neighborhood	—
Alcohol availability	88.65648659
Park access	25.95919415
Retail density	2.181444886
Supermarket access	15.69357115
Tree canopy	0.038496086
Housing	—
Homeownership	82.99756191
Housing habitability	23.09765174
Low-inc homeowner severe housing cost burden	48.87719748
Low-inc renter severe housing cost burden	20.73655845

Uncrowded housing	25.95919415
Health Outcomes	—
Insured adults	29.96278712
Arthritis	0.0
Asthma ER Admissions	15.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	3.7
Cognitively Disabled	26.7
Physically Disabled	6.2
Heart Attack ER Admissions	6.7
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	45.3
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	19.0
Elderly	45.2
English Speaking	86.6
Foreign-born	12.2
Outdoor Workers	8.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	97.6
Traffic Density	1.2
Traffic Access	23.0
Other Indices	—
Hardship	68.2
Other Decision Support	—
2016 Voting	69.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0
Healthy Places Index Score for Project Location (b)	15.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip characteristics based on information provided in the Trip Generation Assessment.
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks.
Operations: Energy Use	Annual electricity usage rate based on Miscellaneous Land Use in Table A9-11-A of the 1993 CEQA Handbook (10.50 kWh/sf/year), and annual natural gas rate based on Table III-57 of the 2009 EIR (4.8 cf/sf/month), which is 59.844 kBTU/sf/year.
Operations: Solid Waste	Based on the Previous EIR, the solid waste generation rate is 0.0108 tons/sf/year
Operations: Water and Waste Water	Based on the annual industrial water demand factor of 1.61 ac-ft/ac/year in the Previous EIR, the water usage is 39,865,882 gals/year for the Central site. (29.79 acres x 1.61 ac-ft/ac/year = 47.962 ac-ft/year = 15,628,433 gals/year)

ATTACHMENT C

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Gasoline	2.67371537	58554.75272	15.44324583	15443.24583	134636251.8	58554.75272	833973115	6.19	HHDT
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Diesel	12941.95694	831355969	134492.4071	134492407.1		831355969			
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Electricity	35.13402513	1790039.704	0	0		1790039.704			
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Natural Gas	34.45532984	768551.5154	128.4014624	128401.4624		768551.5154			
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Gasoline	309548.7892	4461397591	152748.2288	152748228.8	155223924	4461397591	4846003712	31.22	LDA
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Diesel	1034.982141	11815945.63	285.9640623	285964.0623		11815945.63			
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Electricity	13623.83126	231985358.2	0	0		231985358.2			
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Plug-in Hybric	8183.169851	140804817.9	2189.731118	2189731.118		140804817.9			
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Gasoline	31233.77168	363700501	15077.51466	15077514.66	15089708.89	363700501	365179257.5	24.20	LDT1
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Diesel	15.99626011	74688.56915	3.182120351	3182.120351		74688.56915			
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Electricity	48.63773853	765847.4842	0	0		765847.4842			
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Plug-in Hybric	34.41015177	638220.4043	9.012115633	9012.115633		638220.4043			
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Gasoline	137725.5016	1958194467	82256.3799	82256379.9	82741453.72	1958194467	1993808983	24.10	LDT2
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Diesel	435.2924741	6645963.557	207.5008611	207500.8611		6645963.557			
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Electricity	786.4209618	10203117.1	0	0		10203117.1			
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Plug-in Hybric	1052.1882	18765434.55	277.5729614	277572.9614		18765434.55			
San Bernardino (MD)	2024	LHDT1	Aggregate	Aggregate	Gasoline	13065.12456	157138101.2	12040.28108	12040281.08	18598864.11	157138101.2	291882800.1	15.69	LHDT1
San Bernardino (MD)	2024	LHDT1	Aggregate	Aggregate	Diesel	11067.90041	133847672.2	6558.583033	6558583.033		133847672.2			
San Bernardino (MD)	2024	LHDT1	Aggregate	Aggregate	Electricity	35.57307835	897026.7289	0	0		897026.7289			
San Bernardino (MD)	2024	LHDT2	Aggregate	Aggregate	Gasoline	1727.120361	20574066.4	1760.229881	1760229.881	5245656.305	20574066.4	79946108.85	15.24	LHDT2
San Bernardino (MD)	2024	LHDT2	Aggregate	Aggregate	Diesel	4731.795472	59152059.75	3485.426424	3485426.424		59152059.75			
San Bernardino (MD)	2024	LHDT2	Aggregate	Aggregate	Electricity	9.20742508	219982.6914	0	0		219982.6914			
San Bernardino (MD)	2024	MCY	Aggregate	Aggregate	Gasoline	18161.87327	36380276.41	890.4351887	890435.1887	890435.1887	36380276.41	36380276.41	40.86	MCY
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Gasoline	104992.7033	1423808468	74483.72538	74483725.38	75699982.76	1423808468	1470585826	19.43	MDV
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Diesel	1714.88073	24029199.1	1038.083089	1038083.089		24029199.1			
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Electricity	866.9961777	11240680.15	0	0		11240680.15			
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Plug-in Hybric	687.4700368	11507479.24	178.1742888	178174.2888		11507479.24			
San Bernardino (MD)	2024	MH	Aggregate	Aggregate	Gasoline	3091.371633	8738834.752	1832.848498	1832848.498	2176726.359	8738834.752	12339793.92	5.67	MH
San Bernardino (MD)	2024	MH	Aggregate	Aggregate	Diesel	1276.896684	3600959.171	343.8778602	343877.8602		3600959.171			
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Gasoline	898.6661288	20892258.77	4069.77343	4069773.43	9556457.164	20892258.77	71021613.82	7.43	MHDT
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Diesel	2714.454563	49741789.24	5473.060853	5473060.853		49741789.24			
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Electricity	10.1031131	265722.2285	0	0		265722.2285			
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Natural Gas	8.401730183	121843.5871	13.62288055	13622.88055		121843.5871			
San Bernardino (MD)	2024	OBUS	Aggregate	Aggregate	Gasoline	271.7824577	5355260.949	1064.39302	1064393.02	1262990.051	5355260.949	6836081.434	5.41	OBUS
San Bernardino (MD)	2024	OBUS	Aggregate	Aggregate	Diesel	72.39768455	1458109.073	198.5970305	198597.0305		1458109.073			
San Bernardino (MD)	2024	OBUS	Aggregate	Aggregate	Electricity	0.546180409	22711.41178	0	0		22711.41178			
San Bernardino (MD)	2024	SBUS	Aggregate	Aggregate	Gasoline	96.21442986	1990477.086	216.1279222	216127.9222	848501.7412	1990477.086	6798822.642	8.01	SBUS
San Bernardino (MD)	2024	SBUS	Aggregate	Aggregate	Diesel	625.5915659	4792215.322	632.373819	632373.819		4792215.322			
San Bernardino (MD)	2024	SBUS	Aggregate	Aggregate	Electricity	1.465134098	16130.23371	0	0		16130.23371			
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Gasoline	55.17381074	1721652.304	454.6405508	454640.5508	1538519.87	1721652.304	6297964.434	4.09	UBUS
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Diesel	2.531039845	81859.34788	10.32506105	10325.06105		81859.34788			
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Electricity	0.196662013	6782.387499	0	0		6782.387499			
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Natural Gas	103.8995189	4487670.395	1073.554258	1073554.258		4487670.395			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	endar	hicle Catego	Model Year	Speed	Fuel	Population	Total VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Gasoline	2.232242923	174.685266	0.044229524	44.2295237	432481.2549	174.685266	2734029.591	6.32	HHDT
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Diesel	13290.67817	2718528.943	432.0213964	432021.3964		2718528.943			
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Electricity	73.24127598	12813.71434	0	0		12813.71434			
San Bernardino (MD)	2025	HHDT	Aggregate	Aggregate	Natural Gas	35.79343022	2512.247509	0.415629021	415.6290209		2512.247509			
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Gasoline	307204.9065	12797926.77	429.1779078	429177.9078	436597.3127	12797926.77	14073139.3	32.23	LDA
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Diesel	962.0467026	31196.26149	0.748307293	748.3072934		31196.26149			
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Electricity	15945.46151	804402.9682	0	0		804402.9682			
San Bernardino (MD)	2025	LDA	Aggregate	Aggregate	Plug-in Hybric	8911.299519	439613.293	6.671097623	6671.097623		439613.293			
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Gasoline	30281.94807	1023948.458	41.65322818	41653.22818	41697.61719	1023948.458	1029868.3	24.70	LDT1
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Diesel	14.37328038	188.8766986	0.008040521	8.040520781		188.8766986			
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Electricity	63.4184097	3080.600848	0	0		3080.600848			
San Bernardino (MD)	2025	LDT1	Aggregate	Aggregate	Plug-in Hybric	49.86017175	2650.364423	0.03634849	36.34848996		2650.364423			
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Gasoline	140054.4178	5773502.786	236.1756642	236175.6642	237720.0276	5773502.786	5897880.02	24.81	LDT2
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Diesel	454.8922035	20007.67935	0.611012146	611.0121455		20007.67935			
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Electricity	1069.89935	39638.13947	0	0		39638.13947			
San Bernardino (MD)	2025	LDT2	Aggregate	Aggregate	Plug-in Hybric	1272.587663	64731.41535	0.933351272	933.3512721		64731.41535			
San Bernardino (MD)	2025	LHDT1	Aggregate	Aggregate	Gasoline	12749.90304	475043.245	35.43436776	35434.36776	55010.64497	475043.245	883072.4904	16.05	LHDT1
San Bernardino (MD)	2025	LHDT1	Aggregate	Aggregate	Diesel	10857.0041	400920.8214	19.57627721	19576.27721		400920.8214			
San Bernardino (MD)	2025	LHDT1	Aggregate	Aggregate	Electricity	98.95601889	7108.423969	0	0		7108.423969			
San Bernardino (MD)	2025	LHDT2	Aggregate	Aggregate	Gasoline	1694.603438	62030.68257	5.192318957	5192.318957	15650.1167	62030.68257	242225.873	15.48	LHDT2
San Bernardino (MD)	2025	LHDT2	Aggregate	Aggregate	Diesel	4701.002143	178465.3217	10.45779775	10457.79775		178465.3217			
San Bernardino (MD)	2025	LHDT2	Aggregate	Aggregate	Electricity	25.33497762	1729.868729	0	0		1729.868729			
San Bernardino (MD)	2025	MCY	Aggregate	Aggregate	Gasoline	18028.35168	103626.8773	2.523996755	2523.996755	2523.996755	103626.8773	103626.8773	41.06	MCY
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Gasoline	104110.8234	4088311.316	208.9513311	208951.3311	212434.2616	4088311.316	4239424.171	19.96	MDV
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Diesel	1692.198431	67609.45588	2.88135729	2881.35729		67609.45588			
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Electricity	1171.653338	43345.03939	0	0		43345.03939			
San Bernardino (MD)	2025	MDV	Aggregate	Aggregate	Plug-in Hybric	833.9511312	40158.35884	0.601573161	601.5731607		40158.35884			
San Bernardino (MD)	2025	MH	Aggregate	Aggregate	Gasoline	2893.636898	25016.37485	5.245754427	5245.754427	6272.807843	25016.37485	35768.39412	5.70	MH
San Bernardino (MD)	2025	MH	Aggregate	Aggregate	Diesel	1253.718461	10752.01927	1.027053416	1027.053416		10752.01927			
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Gasoline	882.0237715	63858.83118	12.28009321	12280.09321	29977.28732	63858.83118	228066.8499	7.61	MHDT
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Diesel	2781.840623	161536.5192	17.65065663	17650.65663		161536.5192			
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Electricity	28.71678871	2254.085381	0	0		2254.085381			
San Bernardino (MD)	2025	MHDT	Aggregate	Aggregate	Natural Gas	9.099353532	417.4140741	0.046537478	46.53747752		417.4140741			
San Bernardino (MD)	2025	OBUS	Aggregate	Aggregate	Gasoline	261.4887956	15607.15432	3.068703649	3068.703649	3748.986927	15607.15432	20801.72684	5.55	OBUS
San Bernardino (MD)	2025	OBUS	Aggregate	Aggregate	Diesel	75.38246548	5026.471411	0.680283277	680.2832772		5026.471411			
San Bernardino (MD)	2025	OBUS	Aggregate	Aggregate	Electricity	1.341531249	168.1011082	0	0		168.1011082			
San Bernardino (MD)	2025	SBUS	Aggregate	Aggregate	Gasoline	98.49583354	6296.430474	0.679357612	679.3576122	2603.492993	6296.430474	21027.36671	8.08	SBUS
San Bernardino (MD)	2025	SBUS	Aggregate	Aggregate	Diesel	629.7408474	14618.33063	1.924135381	1924.135381		14618.33063			
San Bernardino (MD)	2025	SBUS	Aggregate	Aggregate	Electricity	3.193149087	112.6056107	0	0		112.6056107			
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Gasoline	55.28517502	5275.618753	1.393158939	1393.158939	4688.363233	5275.618753	19298.70462	4.12	UBUS
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Diesel	2.531039845	250.3343972	0.03157511	31.57511024		250.3343972			
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Electricity	0.196662013	20.74124617	0	0		20.74124617			
San Bernardino (MD)	2025	UBUS	Aggregate	Aggregate	Natural Gas	104.1147381	13752.01023	3.263629184	3263.629184		13752.01023			