

Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

MOJAVE DESERT AIR BASIN

The project site lies within the Mojave Desert Air Basin (MDAB). The MDAQMD has jurisdiction over the desert portion of San Bernardino County and the far eastern end of Riverside County. This region includes the incorporated communities of Adelanto, Apple Valley, Barstow, Blythe, Hesperia, Needles, Twentynine Palms, Victorville, and Yucca Valley. This region also includes the National Training Center at Fort Irwin, the Marine Corps Air Ground Combat Center, the Marine Corps Logistics Base, the eastern portion of Edwards Air Force Base, and a portion of the China Lake Naval Air Weapons Station.

Topography and Climate

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 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB.

The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. Antelope Valley is bordered in the northwest by the Tehachapi Mountains, separated from the Sierra Nevada in the north by the Tehachapi Pass (3,800 ft elevation). Antelope Valley is bordered in the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 ft). The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriels by the Cajon Pass (4,200 ft). A lesser channel lies between the San Bernardino Mountains and the Little San Bernardino Mountains (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 Geronio 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, because

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 inches of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate at least three months have maximum average temperatures over 100.4° F (MDAQMD 2016).

The climatological station nearest to the project site with temperature data is the Victorville Pump Pt Monitoring Station (ID 049325). The average low is reported at 29.2°F in December while the average high is 98.1°F in July (WRCC 2019). Rainfall averages 5.52 inches per year in the project area (WRCC 2019).

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the MDAB and is subject to the rules and regulations imposed by the Mojave Desert Air Quality Management District (MDAQMD). However, MDAQMD reports to the California Air Resources Board (CARB), and all criteria emissions are also governed by the California and National Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 1 these pollutants include ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead

(Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Ozone (O ₃) ³	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m ³	150 µg/m ³	
Respirable Fine Particulate Matter (PM _{2.5}) ⁴	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m ³	
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m ³	
	Rolling 3-Month Average	*	0.15 µg/m ³	
Sulfates (SO ₄) ⁵	24 hours	25 µg/m ³	*	Industrial processes.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

1 California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

4 On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

5 On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, NO₂, PM₁₀, and PM_{2.5} are “criteria air pollutants,” which means that AAQS have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and NO₂ are the principal secondary pollutants. Description of the primary and secondary criteria air pollutants and their known health effects are presented below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005). The MDAB is designated as being in attainment under the California AAQS (CARB 2018b). It has an attainment/unclassified designation under the National AAQS (CARB 2018b).

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of O₃, the MDAQMD has established a significance threshold for this pollutant.

Nitrogen Oxides (NO_x) are a by-product of fuel combustion and contribute to the formation of ground-level O₃, PM₁₀, and PM_{2.5}. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO₂ produced by combustion is NO, but NO reacts quickly with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO₂ is only potentially irritating. NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO₂ exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO₂ concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD

2005; USEPA 2018). The MDAB is designated an attainment area for NO₂ under the California AAQS and an unclassified/attainment area under the National AAQS (CARB 2018b).

Sulfur Dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO₂ (SCAQMD 2005). When sulfur dioxide forms sulfates (SO₄) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO₂ is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. The MDAB is designated attainment under the California AAQS and unclassified/attainment under the National AAQS (CARB 2018b).

Suspended Particulate Matter (PM₁₀ and PM_{2.5}) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM₁₀, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM_{2.5}, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (SCAQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that PM_{2.5}, which penetrates deeply into the lungs, is more likely than PM₁₀ to contribute to health effects and at concentrations that extend well below those allowed by the current PM₁₀ standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen. The MDAB is a nonattainment area for PM_{2.5} under California AAQS and unclassified/attainment under National AAQS (CARB 2018b). The MDAB is a nonattainment area for PM₁₀ under California AAQS and a nonattainment area only in the San Bernardino County portion under National AAQS (CARB 2018b).

Ozone (O₃) is commonly referred to as "smog" and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O₃ is a secondary criteria air pollutant. O₃ concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O₃ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O₃ has been tied to crop damage, typically in the form of stunted growth and premature death. O₃ can also act as a corrosive, resulting in property damage such as the degradation of rubber products (SCAQMD 2005). The MDAB is designated nonattainment under the

California AAQS (1-hour and 8-hour) and nonattainment in the southwestern desert of San Bernardino County for National AAQS (8-hour) (CARB 2018b).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from on-road motor vehicle gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The lead effects most commonly encountered in current populations are neurological effects in children and cardiovascular effects (e.g., high blood pressure and heart disease) in adults. Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAQMD 2005). The MDAB is designated in attainment of the California AAQS and unclassified/attainment under the National AAQS for lead (CARB 2018b).

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code § 7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual

facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Mojave Desert Air Quality Management District

MDAQMD is the agency responsible for assuring that the National and California AAQS are attained and maintained in the MDAB. MDAQMD is responsible for:

- Adopting and enforcing rules and regulations concerning air pollutant sources.

- Issuing permits for stationary sources of air pollutants.
- Inspecting stationary sources of air pollutants.
- Responding to citizen complaints.
- Monitoring ambient air quality and meteorological conditions.
- Awarding grants to reduce motor vehicle emissions.
- Conducting public education campaigns.

Air Quality Management Planning

The MDAQMD is the agency responsible for preparing the air quality management plans (AQMP) for the MDAB. MDAQMD has adopted the following attainment plans for nonattainment pollutants that are applicable within the project area (MDAQMD 2019 and CARB 2018c):

OZONE ATTAINMENT PLANS

- 2018 –Federal Negative Declaration (8-Hour Ozone Standard) for One CTG Categories
- 2018 –Federal Negative Declaration (8-Hour Ozone Standard) for Two CTG Categories
- 2017 –Federal 75 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)
- 2016 –8-Hour Ozone SIP (Western Mojave Desert Nonattainment Area)
- 2015 –8-Hour Ozone Reasonably Available Control Technology (RACT) State Implementation Plan (SIP) Analysis: Mojave Desert Air Quality Management District
- 2015 –Federal Negative Declaration (8-Hour Ozone Standard) for Nineteen CTG Categories
- 2014 –Updates to the 1997 8-Hour Ozone Standard SIPs (Coachella Valley and Western Mojave Desert 8-Hour Ozone Nonattainment Areas)
- 2008 –Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area).
- 2006— MDAQMD 2006 8hr Ozone RACT SIP Analysis
- 2004 –2004 Ozone Attainment Plan (State and Federal).
- 1996 –Triennial Revision to the 1991 Air Quality Attainment Plan.

- 1994 –Reasonable Further Progress Rate-of-Progress Plan.
- 1994 –Post 1996 Attainment Demonstration and Reasonable Further Progress Plan.
- 1991 –1991 Air Quality Attainment Plan.

PARTICULATE MATTER ATTAINMENT PLANS

- 2005 –MDAQMD Schedule for District Measures to Reduce PM Pursuant to H&S Code 39614(d).
- 1995 –Mojave Desert Planning Area Federal Particulate Matter Attainment Plan.

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified:** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment:** a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment:** a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- **Nonattainment/Transitional:** a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the MDAB is shown in Table 2, *Attainment Status of Criteria Pollutants in the Mojave Desert Air Basin*.

Table 2 Attainment Status of Criteria Pollutants in the Mojave Desert Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	No Federal Standard
Ozone – 8-hour	Nonattainment	Nonattainment ¹
PM ₁₀	Nonattainment	Nonattainment ²
PM _{2.5}	Nonattainment ¹	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment

Source: CARB 2018b.

¹ Southwest corner of desert portion of San Bernardino County only

² San Bernardino County portion only

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the MDAQMD. The air quality monitoring station closest to the project site is the Victorville – 14306 Park Avenue Monitoring Station. This station monitors O₃, PM₁₀, PM_{2.5}, and NO₂. The most current five years of data from these monitoring stations are included in Table 3. The data show regular violations of the state and federal O₃ standards in the last five years. The NO₂, state PM₁₀, and federal PM_{2.5} standard has been occasionally exceeded in the last five years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2014	2015	2016	2017	2018
Ozone (O₃)					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	3	8	4	0	5
State 8-hour ≥ 0.07 ppm (days exceed threshold)	38	38	33	17	55
Federal 8-Hour > 0.075 ppm (days exceed threshold)	18	21	18	7	27
Max. 1-Hour Conc. (ppm)	0.122	0.132	0.100	0.088	0.107
Max. 8-Hour Conc. (ppm)	0.096	0.105	0.085	0.081	0.096
Nitrogen Dioxide (NO₂)					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	1	0	0	0
Max. 1-Hour Conc. (ppb)	0.067	0.118	0.097	0.0573	0.0514
Coarse Particulates (PM₁₀)					
State 24-Hour > 50 µg/m ³ (days exceed threshold)	*	*	*	*	*
Federal 24-Hour > 150 µg/m ³ (days exceed threshold)	1	0	2	1	1
Max. 24-Hour Conc. (µg/m ³)	246	96	227	183	165
Fine Particulates (PM_{2.5})					
Federal 24-Hour > 35 µg/m ³ (days exceed threshold)	0	1	1	0	0
Max. 24-Hour Conc. (µg/m ³)	24	50	42	27	33

Source: CARB 2019. Data obtained from the Victorville – 14306 Park Avenue Monitoring Station.
 ppm: parts per million; parts per billion, µg/m³: micrograms per cubic meter
 Notes: * Data not available.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The sensitive receptors nearest the project site include single-family residences to the south of the project site along Forest Park Lane, to the west along Mesa View Drive, and to the north along Pepperwood Street.

Methodology

Projected-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2, distributed by the California Air Pollutant Control Officers Association (CAPCOA). CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only) use.

Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance, methodologies, and significance thresholds in MDAQMD's *CEQA and Federal Conformity Guidelines* (2016). CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. MDAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation.

CONSISTENCY WITH AIR QUALITY MANAGEMENT PLANS

MDAQMD requires a consistency evaluation with adopted federal and state AQMPs. If a project is deemed consistent with the existing land use plan, it is considered consistent with the AQMPs. Zoning changes, specific plans, general plan amendments, and similar land use plan changes that do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold (MDAQMD 2016).

REGIONAL SIGNIFICANCE THRESHOLDS

MDAQMD's significance criteria are shown in Table 4, *MDAQMD Regional Significance Thresholds*. The thresholds in this table are applied to both construction and operational phases of the project regardless of whether they are stationary or mobile sources, resulting in a conservative estimate of air quality impacts of the project. Projects with phases shorter than one year (e.g., construction activities) should be compared to the daily value.

Table 4 MDAQMD Regional Significance Thresholds

Air Pollutant	Annual	Daily
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	25 tons/year	137 lbs/day
Carbon Monoxide (CO)	100 tons/year	548 lbs/day
Nitrogen Oxides (NO _x)	25 tons/year	137 lbs/day
Sulfur Oxides (SO _x)	25 tons/year	137 lbs/day
Particulates (PM ₁₀)	15 tons/year	82 lbs/day
Particulates (PM _{2.5})	12 tons/year	65 lbs/day

Source: MDAQMD 2016.

Notes:

Lead and hydrogen sulfide are not air quality pollutants of concern for most projects and are typically generated by industrial (MDAQMD permitted) projects only.

Project with phases shorter than one year, including construction activities, can be compared to the daily value.

LOCALIZED SIGNIFICANCE THRESHOLDS

MDAQMD also considers projects that cause or contribute to an exceedance of the California or National AAQS to result in significant impacts. Emissions that do not exceed the daily or annual emission in Table 4 are considered to result in less than significant localized impacts.

HEALTH RISK THRESHOLDS

Whenever a project would require use of chemical compounds that have been identified in MDAQMD Regulation XIII, New Source Review, placed on CARB’s air toxics list pursuant to Assembly Bill 1807 (AB 1807), Air Contaminant Identification and Control Act (1983); or placed on the EPA’s National Emissions Standards for Hazardous Air Pollutants, a health risk assessment (HRA) is required by MDAQMD. In addition, the MDAQMD identified the following project types must be evaluated using significance threshold criteria in Table 5, *MDAQMD Toxic Air Contaminants Incremental Risk Thresholds*, when located within the specified distance to an existing or planned (zoned) sensitive receptor land use:

- Industrial projects within 1000 feet;
- Distribution centers (40 or more trucks per day) within 1,000 feet;
- Major transportation projects (50,000 or more vehicles per day) within 1,000 feet;
- Dry cleaners using perchloroethylene within 500 feet;
- Gasoline dispensing facilities within 300 feet. (MDAQMD 2016)

Conversely, sensitive receptors within these specified distances should also be evaluated for air quality compatibility.

Table 5 MDAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0

Source: MDAQMD 2016.

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor,¹ carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).² The major GHGs are briefly described below.

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. It also results from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.
 - **Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

¹ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

² Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

- **Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₄] and perfluoroethane [C₂F₆]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high GWP.
- **Sulfur Hexafluoride (SF₆)** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
- **Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.
- **Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; USEPA 2019).

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions associated with the proposed project are shown in Table 6. The GWP is used to convert GHGs to CO₂-equivalence (CO₂e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC’s Fourth Assessment Report GWP values for CH₄, a project that generates 10 metric tons (MT) of CH₄ would be equivalent to 250 MT of CO₂.³

Table 6 GHG Emissions and Their Relative Global Warming Potential Compared to CO₂

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO ₂ ¹	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ¹
Carbon Dioxide (CO ₂)	50 to 200	50 to 200	1	1
Methane ² (CH ₄)	12 (±3)	12	21	25
Nitrous Oxide (N ₂ O)	120	114	310	298

Source: IPCC 1995; IPCC 2007.

Notes: The GWP values in the IPCC’s Fifth Assessment Report (IPCC 2013) reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂. However, SCAQMD uses the AR4 GWP values to maintain consistency in statewide GHG emissions modeling. In addition, the 2014 Scoping Plan Update was based on the AR4 GWP values.

¹ Based on 100-year time horizon of the GWP of the air pollutant relative to CO₂.

² The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

³ CO₂-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

The EPA's endangerment finding covers emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. Of these key GHGs, CO₂, CH₄, and N₂O are applicable to the proposed project.

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO₂ per year are required to submit an annual report.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO₂ per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025 that will require a fleet average of 54.5 miles per gallon in 2025. However, the EPA is reexamining the 2017-2025 emissions standards.

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources also. However, the EPA is reviewing the Clean Power Plan under President Trump's Energy Independence Executive Order.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and Senate Bill 375.

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Assembly Bill 32 (AB 32), the Global Warming Solutions Act. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be approximately 596 MMTCO_{2e} in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO_{2e} (471 million tons) for the state (CARB 2008). In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT CO_{2e} per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated GWPs in the Fourth Assessment Report, and the 427 MMTCO_{2e} 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 MMTCO_{2e} (CARB 2014).

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the

trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the State and requires state agencies to implement measures to meet the interim 2030 goal of Executive Order B-30-15 as well as the long-term goal for 2050 in Executive Order S-03-5. It also requires the Natural Resources Agency to conduct triennial updates the California adaptation strategy, *Safeguarding California*, in order to ensure climate change is accounted for in State planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO_{2e} for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017b).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks;

- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the State’s long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 MTCO_{2e} or less per capita by 2030 and 2 MTCO_{2e} or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State’s sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State’s 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the state’s long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from vehicle miles traveled (VMT), and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 7, *2017 Climate Change Scoping Plan Emissions Reductions Gap*. It includes the existing renewables requirements, advanced clean cars, the “10 percent” Low Carbon Fuel Standard (LCFS), and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result

in emissions that are 60 MMTCO₂e above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 7 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions MMTCO ₂ e
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	260
Gap to 2030 Target	60

Source: CARB 2017b.

Table 8, *2017 Climate Change Scoping Plan Emissions Change by Sector*, provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

Table 8 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 MMTCO ₂ e	2030 Proposed Plan Ranges MMTCO ₂ e	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink ¹	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	431	260	-40%

Source: CARB 2017b.

Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.

¹ Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter (PM) produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50

percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the Final Proposed Short-Lived Climate Pollutant Strategy, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017a). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 MMTCO_{2e} of reductions by 2020 and 15 MMTCO_{2e} of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and recently released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted

SCSs. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 MMTCO_{2e} in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018a). CARB anticipates adoption of the updated targets and methodology in 2018 and subsequent SCSs adopted afterwards would be subject to these new targets.

SCAG's 2016-2040 RTP/SCS

SB 375 requires each MPO to prepare an SCS in their regional transportation plan. For the SCAG region, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on April 7, 2016 and is an update to the 2012 RTP/SCS (SCAG 2016). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger per capita targets set in 2010 by CARB. It is projected that VMT per capita in the region for year 2040 would be reduced by 7.4 percent with implementation of the 2016-2040 RTP/SCS compared to a no-plan year 2040 scenario. Under the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2 percent increase in reduction compared to the 2012 RTP/SCS projection. Overall, the SCS is meant to provide growth strategies that will achieve the aforementioned regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016). However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Executive Order S-1-07

On January 18, 2007, the state set a new low carbon fuel standard (LCFS) for transportation fuels sold within the state. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

Senate Bills 1078 and 107, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. CARB has now approved an even higher goal of 33 percent by 2020. In 2011, the state legislature adopted this higher standard in SBX1-2. Executive Order S-14-08 was signed in November 2008, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2019 (California Code of Regulations [CCR], Title 24, Part 6). Title 24 requires the

design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the CEC adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, go into effect January 1, 2020.

The 2019 standards cut energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. Four focus areas of the 2019 standards are: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; and 4) nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient than under the 2016 standards, and single-family homes will be 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.⁴ The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2019. The 2016 CALGreen became effective on January 1, 2017. The CEC adopted the 2019 CALGreen on May 9, 2018. The 2019 CALGreen standards become effective January 1, 2020.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California's Integrated Waste Management Act of 1989 (AB 939; Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that

⁴ The green building standards became mandatory in the 2010 edition of the code.

each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327; Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2016 CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the Energy Commission, in consultation with the department, to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.⁵

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

The analysis of the proposed project’s air quality impacts follows the guidance and methodologies recommended in MDAQMD’s *CEQA and Federal Conformity Guidelines* (2016). CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. MDAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation

Regional Significance Thresholds

MDAQMD’s significance criteria are shown in Table 9, *MDAQMD Greenhouse Gas Significance Thresholds*. The thresholds identified in this table are applied to both construction and operational phases of the project regardless of whether they are stationary or mobile sources, resulting in a conservative estimate of air quality impacts of the project. Project with phases shorter than one year (e.g., construction activities) should be compared to the daily value.

Table 9 MDAQMD Greenhouse Gas Significance Thresholds

Annual (tons/year)	Daily ¹ (lbs/day)
100,000 (90,718 MTCO ₂ e/year)	548,000

Source: MDAQMD 2016.

¹ Project with phases shorter than one year, including construction activities, can be compared to the daily value.

⁵ The Governor’s Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project’s incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

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Regional Construction Emissions Worksheet:

Site Preparation			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2019 Summer						
	Fugitive Dust						3.7079	1.5375
	Off-Road		3.8809	42.7902	27.6063	0.0449	2.0261	1.864
	Total		3.8809	42.7902	27.6063	0.0449	5.7339	3.4015
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		7.38E-03	0.2352	0.048	5.70E-04	0.0151	5.35E-03
	Worker		0.0482	0.0301	0.3799	8.70E-04	0.0827	0.0223
	Total		0.0556	0.2653	0.4278	1.44E-03	0.0978	0.0277
TOTAL			3.9365	43.0555	28.0341	0.0463	5.8317	3.4292
Onsite		2019 Winter						
	Fugitive Dust						3.7079	1.5375
	Off-Road		3.8809	42.7902	27.6063	0.0449	2.0261	1.864
	Total		3.8809	42.7902	27.6063	0.0449	5.7339	3.4015
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		7.74E-03	0.2341	0.055	5.50E-04	0.0151	5.37E-03
	Worker		0.0471	0.0317	0.3175	7.80E-04	0.0827	0.0223
	Total		0.0548	0.2658	0.3725	1.33E-03	0.0978	0.0277
TOTAL			3.9357	43.0560	27.9788	0.0462	5.8317	3.4292
Onsite		2019						
	Fugitive Dust		0	0	0	0	3.7079	1.5375
	Off-Road		3.8809	42.7902	27.6063	0.0449	2.0261	1.864
	Total		3.8809	42.7902	27.6063	0.0449	5.7339	3.4015
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.00774	0.2352	0.055	0.00057	0.0151	0.00537
	Worker		0.0482	0.0317	0.3799	0.00087	0.0827	0.0223
	Total		0.0556	0.2658	0.4278	0.00144	0.0978	0.0277
TOTAL			3.9365	43.056	28.0341	0.04634	5.8317	3.4292
Rough Grading			ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2019 Summer						
	Fugitive Dust						3.7079	1.5375
	Off-Road		3.8809	42.7902	27.6063	0.0449	2.0261	1.864
	Total		3.8809	42.7902	27.6063	0.0449	5.7339	3.4015
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		7.38E-03	0.2352	0.048	5.70E-04	0.0151	5.35E-03
	Worker		0.0482	0.0301	0.3799	8.70E-04	0.0827	0.0223
	Total		0.0556	0.2653	0.4278	1.44E-03	0.0978	0.0277
TOTAL			3.9365	43.0555	28.0341	0.0463	5.8317	3.4292
Onsite		2019 Winter						
	Fugitive Dust						3.7079	1.5375
	Off-Road		3.8809	42.7902	27.6063	0.0449	2.0261	1.864
	Total		3.8809	42.7902	27.6063	0.0449	5.7339	3.4015
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		7.74E-03	0.2341	0.055	5.50E-04	0.0151	5.37E-03
	Worker		0.0471	0.0317	0.3175	7.80E-04	0.0827	0.0223
	Total		0.0548	0.2658	0.3725	1.33E-03	0.0978	0.0277
TOTAL			3.9357	43.0560	27.9788	0.0462	5.8317	3.4292
Onsite		2019						
	Fugitive Dust		0	0	0	0	3.7079	1.5375
	Off-Road		3.8809	42.7902	27.6063	0.0449	2.0261	1.864
	Total		3.8809	42.7902	27.6063	0.0449	5.7339	3.4015
Offsite								
	Hauling		0	0	0	0	0	0
	Vendor		0.00774	0.2352	0.055	0.00057	0.0151	0.00537
	Worker		0.0482	0.0317	0.3799	0.00087	0.0827	0.0223
	Total		0.0556	0.2658	0.4278	0.00144	0.0978	0.0277
TOTAL			3.9365	43.056	28.0341	0.04634	5.8317	3.4292

Building Construction 2019

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2019 Summer					
	Off-Road	1.2481	11.8558	9.246	0.0135	0.5529	0.5087
	Total	1.2481	11.8558	9.246	0.0135	0.5529	0.5087
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1255	3.9985	0.8152	9.67E-03	0.2562	0.091
	Worker	0.4197	0.2615	3.3049	7.55E-03	0.7197	0.1941
	Total	0.5452	4.2601	4.1201	0.0172	0.9758	0.2852
TOTAL		1.7933	16.1159	13.3661	0.0307	1.5287	0.7939
Onsite		2019 Winter					
	Off-Road	1.2481	11.8558	9.246	0.0135	0.5529	0.5087
	Total	1.2481	11.8558	9.246	0.0135	0.5529	0.5087
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1316	3.9799	0.9343	9.31E-03	0.2565	0.0913
	Worker	0.4097	0.2754	2.7622	6.77E-03	0.7197	0.1941
	Total	0.5414	4.2554	3.6965	0.0161	0.9761	0.2855
TOTAL		1.7895	16.1112	12.9425	0.0296	1.5290	0.7942
Onsite		2019					
	Off-Road	1.2481	11.8558	9.246	0.0135	0.5529	0.5087
	Total	1.2481	11.8558	9.246	0.0135	0.5529	0.5087
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1316	3.9985	0.9343	0.00967	0.2565	0.0913
	Worker	0.4197	0.2754	3.3049	0.00755	0.7197	0.1941
	Total	0.5452	4.2601	4.1201	0.0172	0.9761	0.2855
TOTAL		1.7933	16.1159	13.3661	0.0307	1.5290	0.7942

Building Construction 2020

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2020 Summer					
	Off-Road	1.1382	10.7907	8.4795	0.0135	0.4908	0.4515
	Total	1.1382	10.7907	8.4795	0.0135	0.4908	0.4515
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.106	3.657	0.7154	9.60E-03	0.2478	0.083
	Worker	0.3861	0.2322	2.9804	7.31E-03	0.7195	0.194
	Total	0.4922	3.8892	3.6958	0.0169	0.9673	0.277
TOTAL		1.6304	14.6799	12.1753	0.0304	1.4581	0.7285
Onsite		2020 Winter					
	Off-Road	1.1382	10.7907	8.4795	0.0135	0.4908	0.4515
	Total	1.1382	10.7907	8.4795	0.0135	0.4908	0.4515
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1117	3.6311	0.8264	9.24E-03	0.248	0.0832
	Worker	0.3776	0.2444	2.4862	6.56E-03	0.7195	0.194
	Total	0.4893	3.8755	3.3126	0.0158	0.9675	0.2772
TOTAL		1.6275	14.6662	11.7921	0.0293	1.4583	0.7287
Onsite		2020					
	Off-Road	1.1382	10.7907	8.4795	0.0135	0.4908	0.4515
	Total	1.1382	10.7907	8.4795	0.0135	0.4908	0.4515
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.1117	3.657	0.8264	0.0096	0.248	0.0832
	Worker	0.3861	0.2444	2.9804	0.00731	0.7195	0.194
	Total	0.4922	3.8892	3.6958	0.0169	0.9675	0.2772
TOTAL		1.6304	14.6799	12.1753	0.0304	1.4583	0.7287

Utility Trenching

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
		2020 Summer					
Onsite	Off-Road	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
	Total	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
Offsite	Hauling	0	0	0	0	0	0
	Vendor	6.24E-03	0.2151	0.0421	5.60E-04	0.0146	4.89E-03
	Worker	0.0444	0.0267	0.3426	8.40E-04	0.0827	0.0223
	Total	0.0506	0.2418	0.3847	1.40E-03	0.0973	0.0272
TOTAL		2.6237	29.1113	19.6058	0.0366	1.3660	1.1944
		2020 Winter					
Onsite	Off-Road	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
	Total	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
Offsite	Hauling	0	0	0	0	0	0
	Vendor	6.57E-03	0.2136	0.0486	5.40E-04	0.0146	4.89E-03
	Worker	0.0434	0.0281	0.2856	7.50E-04	0.0827	0.0223
	Total	0.05	0.2417	0.3344	1.29E-03	0.0973	0.0272
TOTAL		2.6231	29.1112	19.5555	0.0365	1.3660	1.1944
		2020					
Onsite	Off-Road	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
	Total	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
Offsite	Hauling	0	0	0	0	0	0
	Vendor	0.00657	0.2151	0.0486	0.00056	0.0146	0.00489
	Worker	0.0444	0.0281	0.3426	0.00084	0.0827	0.0223
	Total	0.0506	0.2418	0.3847	0.0014	0.0973	0.0272
TOTAL		2.6237	29.1113	19.6058	0.0366	1.366	1.1944

Architectural Coating

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
		2020 Summer					
Onsite	Archit. Coating	24.7247				0	0
	Off-Road	0.3229	2.2451	2.4419	3.96E-03	0.1479	0.1479
	Total	25.0476	2.2451	2.4419	3.96E-03	0.1479	0.1479
Offsite	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0533	0.032	0.4111	1.01E-03	0.0992	0.0268
	Total	0.0533	0.032	0.4111	1.01E-03	0.0992	0.0268
TOTAL		25.1009	2.2771	2.8530	0.0050	0.2471	0.1747
		2020 Winter					
Onsite	Archit. Coating	24.7247				0	0
	Off-Road	0.3229	2.2451	2.4419	3.96E-03	0.1479	0.1479
	Total	25.0476	2.2451	2.4419	3.96E-03	0.1479	0.1479
Offsite	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0521	0.0337	0.3429	9.00E-04	0.0992	0.0268
	Total	0.0521	0.0337	0.3429	9.00E-04	0.0992	0.0268
TOTAL		25.0997	2.2788	2.7848	0.0049	0.2471	0.1747
		2020					
Onsite	Archit. Coating	24.7247	0	0	0	0	0
	Off-Road	0.3229	2.2451	2.4419	0.00396	0.1479	0.1479
	Total	25.0476	2.2451	2.4419	0.00396	0.1479	0.1479
Offsite	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0533	0.0337	0.4111	0.00101	0.0992	0.0268
	Total	0.0533	0.0337	0.4111	0.00101	0.0992	0.0268
TOTAL		25.1009	2.2788	2.853	0.00497	0.2471	0.1747

Fine Grading

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
		2020 Summer					
Onsite	Fugitive Dust					1.1334	0.1224
	Off-Road	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
	Total	2.5731	28.8695	19.2211	0.0352	2.4022	1.2896
Offsite	Hauling	0	0	0	0	0	0
	Vendor	6.24E-03	0.2151	0.0421	5.60E-04	0.0146	4.89E-03
	Worker	0.0444	0.0267	0.3426	8.40E-04	0.0827	0.0223
	Total	0.0506	0.2418	0.3847	1.40E-03	0.0973	0.0272
TOTAL		2.6237	29.1113	19.6058	0.0366	2.4995	1.3168
		2020 Winter					
Onsite	Fugitive Dust					1.1334	0.1224
	Off-Road	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
	Total	2.5731	28.8695	19.2211	0.0352	2.4022	1.2896
Offsite	Hauling	0	0	0	0	0	0
	Vendor	6.57E-03	0.2136	0.0486	5.40E-04	0.0146	4.89E-03
	Worker	0.0434	0.0281	0.2858	7.50E-04	0.0827	0.0223
	Total	0.05	0.2417	0.3344	1.29E-03	0.0973	0.0272
TOTAL		2.6231	29.1112	19.5555	0.0365	2.4995	1.3168
		2020					
Onsite	Fugitive Dust	0	0	0	0	1.1334	0.1224
	Off-Road	2.5731	28.8695	19.2211	0.0352	1.2687	1.1672
	Total	2.5731	28.8695	19.2211	0.0352	2.4022	1.2896
Offsite	Hauling	0	0	0	0	0	0
	Vendor	0.00657	0.2151	0.0486	0.00056	0.0146	0.00489
	Worker	0.0444	0.0281	0.3426	0.00084	0.0827	0.0223
	Total	0.0506	0.2418	0.3847	0.0014	0.0973	0.0272
TOTAL		2.6237	29.1113	19.6058	0.0366	2.4995	1.3168

Foundation (Aggregate Base/Base)

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
		2020 Summer					
Onsite	Off-Road					0.6801	0.0734
	Paving	2.5148	26.435	19.5808	0.0312	1.4085	1.2959
	Total	2.5148	26.435	19.5808	0.0312	2.0886	1.3693
Offsite	Hauling	0	0	0	0	0	0
	Vendor	6.24E-03	0.2151	0.0421	5.60E-04	0.0146	4.89E-03
	Worker	0.0444	0.0267	0.3426	8.40E-04	0.0827	0.0223
	Total	0.0506	0.2418	0.3847	1.40E-03	0.0973	0.0272
TOTAL		2.5654	26.6768	19.9655	0.0326	2.1859	1.3965
		2020 Winter					
Onsite	Off-Road					0.6801	0.0734
	Paving	2.5148	26.435	19.5808	0.0312	1.4085	1.2959
	Total	2.5148	26.435	19.5808	0.0312	2.0886	1.3693
Offsite	Hauling	0	0	0	0	0	0
	Vendor	6.57E-03	0.2136	0.0486	5.40E-04	0.0146	4.89E-03
	Worker	0.0434	0.0281	0.2858	7.50E-04	0.0827	0.0223
	Total	0.05	0.2417	0.3344	1.29E-03	0.0973	0.0272
TOTAL		2.5648	26.6767	19.9152	0.0325	2.1859	1.3965
		2020					
Onsite	Off-Road	0	0	0	0	0.6801	0.0734
	Paving	2.5148	26.435	19.5808	0.0312	1.4085	1.2959
	Total	2.5148	26.435	19.5808	0.0312	2.0886	1.3693
Offsite	Hauling	0	0	0	0	0	0
	Vendor	0.00657	0.2151	0.0486	0.00056	0.0146	0.00489
	Worker	0.0444	0.0281	0.3426	0.00084	0.0827	0.0223
	Total	0.0506	0.2418	0.3847	0.0014	0.0973	0.0272
TOTAL		2.5654	26.6768	19.9655	0.0326	2.1859	1.3965

Asphalt Paving (School)

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2020 Summer					
	Off-Road	1.0073	9.869	8.9465	0.0122	0.6618	0.6088
	Paving	0.5764				0	0
	Total	1.5837	9.869	8.9465	0.0122	0.6618	0.6088
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	6.24E-03	0.2151	0.0421	5.60E-04	0.0146	4.88E-03
	Worker	0.0533	0.032	0.4111	1.01E-03	0.0992	0.0268
	Total	0.0595	0.2472	0.4532	1.57E-03	0.1138	0.0316
TOTAL		1.6432	10.1162	9.3997	0.0138	0.7756	0.6404
Onsite		2020 Winter					
	Off-Road	1.0073	9.869	8.9465	0.0122	0.6618	0.6088
	Paving	0.5764				0	0
	Total	1.5837	9.869	8.9465	0.0122	0.6618	0.6088
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	6.57E-03	0.2136	0.0486	5.40E-04	0.0146	4.89E-03
	Worker	0.0521	0.0337	0.3429	9.00E-04	0.0992	0.0268
	Total	0.0587	0.2473	0.3915	1.44E-03	0.1138	0.0317
TOTAL		1.6424	10.1163	9.3380	0.0136	0.7756	0.6405
Onsite		2020					
	Off-Road	1.0073	9.869	8.9465	0.0122	0.6618	0.6088
	Paving	0.5764	0	0	0	0	0
	Total	1.5837	9.869	8.9465	0.0122	0.6618	0.6088
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.00657	0.2151	0.0486	0.00056	0.0146	0.00489
	Worker	0.0533	0.0337	0.4111	0.00101	0.0992	0.0268
	Total	0.0595	0.2473	0.4532	0.00157	0.1138	0.0317
TOTAL		1.6432	10.1163	9.3997	0.01377	0.7756	0.6405

Asphalt Paving (Roadway)

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2020 Summer					
	Off-Road	1.0073	9.869	8.9465	0.0122	0.6618	0.6088
	Paving	2.882				0	0
	Total	3.8893	9.869	8.9465	0.0122	0.6618	0.6088
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	6.24E-03	0.2151	0.0421	5.60E-04	0.0146	4.88E-03
	Worker	0.0533	0.032	0.4111	1.01E-03	0.0992	0.0268
	Total	0.0595	0.2472	0.4532	1.57E-03	0.1138	0.0316
TOTAL		3.9488	10.1162	9.3997	0.0138	0.7756	0.6404
Onsite		2020 Winter					
	Off-Road	1.0073	9.869	8.9465	0.0122	0.6618	0.6088
	Paving	2.882				0	0
	Total	3.8893	9.869	8.9465	0.0122	0.6618	0.6088
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	6.57E-03	0.2136	0.0486	5.40E-04	0.0146	4.89E-03
	Worker	0.0521	0.0337	0.3429	9.00E-04	0.0992	0.0268
	Total	0.0587	0.2473	0.3915	1.44E-03	0.1138	0.0317
TOTAL		3.9480	10.1163	9.3380	0.0136	0.7756	0.6405
Onsite		2020					
	Off-Road	1.0073	9.869	8.9465	0.0122	0.6618	0.6088
	Paving	2.882	0	0	0	0	0
	Total	3.8893	9.869	8.9465	0.0122	0.6618	0.6088
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0.00657	0.2151	0.0486	0.00056	0.0146	0.00489
	Worker	0.0533	0.0337	0.4111	0.00101	0.0992	0.0268
	Total	0.0595	0.2473	0.4532	0.00157	0.1138	0.0317
TOTAL		3.9488	10.1163	9.3997	0.01377	0.7756	0.6405

Finishing and Landscape

		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite		2020 Summer					
	Off-Road	0.1798	1.3834	1.4629	1.97E-03	0.0628	0.0578
	Total	0.1798	1.3834	1.4629	1.97E-03	0.0628	0.0578
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0533	0.032	0.4111	1.01E-03	0.0992	0.0268
	Total	0.0533	0.032	0.4111	1.01E-03	0.0992	0.0268
TOTAL		0.2331	1.4154	1.8740	0.0030	0.1620	0.0846
Onsite		2020 Winter					
	Off-Road	0.1798	1.3834	1.4629	1.97E-03	0.0628	0.0578
	Total	0.1798	1.3834	1.4629	1.97E-03	0.0628	0.0578
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0521	0.0337	0.3429	9.00E-04	0.0992	0.0268
	Total	0.0521	0.0337	0.3429	9.00E-04	0.0992	0.0268
TOTAL		0.2319	1.4171	1.8058	0.0029	0.1620	0.0846
Onsite		2020					
	Off-Road	0.1798	1.3834	1.4629	0.00197	0.0628	0.0578
	Total	0.1798	1.3834	1.4629	0.00197	0.0628	0.0578
Offsite							
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0533	0.0337	0.4111	0.00101	0.0992	0.0268
	Total	0.0533	0.0337	0.4111	0.00101	0.0992	0.0268
TOTAL		0.2331	1.4171	1.874	0.00298	0.162	0.0846

Overlapping Construction Phases

<i>Site Preparation and Rough Grading</i>	7.8730	86.1120	56.0682	0.0927	11.6634	6.8584
<i>Building Construction (2019)</i>	1.7933	16.1159	13.3661	0.0307	1.5290	0.7942
<i>Building Construction (2020)</i>	1.6304	14.6799	12.1753	0.0304	1.4583	0.7287
<i>Building Construction and Utility Trenching</i>	4.2541	43.7912	31.7811	0.0670	2.8243	1.9231
<i>Building Construction and Architectural Coating</i>	26.7313	16.9587	15.0283	0.0354	1.7054	0.9034
<i>Building Construction, Architectural Coating, and Fine Grading</i>	29.3550	46.0700	34.6341	0.0720	4.2049	2.2202
<i>Building Construction, Architectural coating, Fine Grading, and Paving (school)</i>	30.9982	56.1863	44.0338	0.0857	4.9805	2.8607
<i>Fine Grading and Paving (school)</i>	4.2669	39.2276	29.0055	0.0504	3.2751	1.9573
<i>Paving (school) and Foundation Road (Aggregate Base/Base)</i>	4.2086	36.7931	29.3652	0.04637	2.9615	2.037
<i>Foundation Road (Aggregate Base/Base)</i>	2.5654	26.6768	19.9655	0.0326	2.1859	1.3965
<i>Paving (road)</i>	3.9488	10.1163	9.3997	0.01377	0.7756	0.6405
<i>Finishing and Landscaping</i>	0.2331	1.4171	1.874	0.00298	0.162	0.0846
MAX DAILY	31.00	86.11	56.07	0.09	11.66	6.86
MDAQMD Regional Thresholds	137	137	548	137	82	65
Exceeds Thresholds?	No	No	No	No	No	No

Regional Annual Construction Emissions Worksheet

		TOTAL EMISSIONS					
Annual	tons/year	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	2019	0.1057	1.1256	0.759	1.35E-03	0.1449	0.0841
	2020	0.2765	1.4751	1.1121	2.34E-03	0.1163	0.0699
Maximum		0.2765	1.4751	1.1121	2.34E-03	0.1449	0.0841
Regional Thresholds		25	25	100	25	15	12
Exceeds Thresholds?		No	No	No	No	No	No

Regional Operational Emissions Worksheet

Daily

Summer	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	0.9444	2.00E-04	0.0213	0	8.00E-05	8.00E-05
Energy	7.50E-03	0.0682	0.0573	4.10E-04	5.18E-03	5.18E-03
Mobile	1.6081	1.4434	15.868	0.0394	3.9541	1.0677
Total	2.56	1.5118	15.9466	0.0398	3.9594	1.073

Winter	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	0.9444	2.00E-04	0.0213	0	8.00E-05	8.00E-05
Energy	7.50E-03	0.0682	0.0573	4.10E-04	5.18E-03	5.18E-03
Mobile	1.3338	1.5132	13.8517	0.0354	3.9542	1.0678
Total	2.2857	1.5816	13.9303	0.0358	3.9594	1.073

Max Daily	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	0.944400	0.000200	0.021300	0.000000	0.000080	0.000080
Energy	0.007500	0.068200	0.057300	0.000410	0.005180	0.005180
Mobile	1.608100	1.513200	15.868000	0.039400	3.954200	1.067800
Total	2.560	1.582	15.947	0.040	3.959	1.073

Regional Thresholds	137	137	548	137	82	65
Exceeds Thresholds?	No	No	No	No	No	No

Annual

	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	1.72E-01	2.00E-05	1.92E-03	0.00E+00	1.00E-05	1.00E-05
Energy	1.37E-03	1.25E-02	1.05E-02	7.00E-05	9.50E-04	9.50E-04
Mobile	0.1684	0.2046	1.8796	0.0047	0.5043	0.1364
Total	0.342	0.221	1.895	4.80E-03	0.506	0.138

Regional Thresholds	25	25	100	25	15	12
Exceeds Thresholds?	No	No	No	No	No	No

GHG Emissions Worksheet

Annual

	<u>MT Total</u>	<u>Short Tons</u>
2019	122.6331	135
2020	210.5796	231
Total Construction	210.5796	231

<u>Source</u>	<u>Mtons/Year</u>	<u>Percent of Total</u>	<u>Short Tons/Year</u>
Area	0	0%	0
Energy	72	13%	79
Mobile	425	79%	467
Waste	24	5%	27
Water	8	1%	9
Amortized Construction Emissions*	7	1%	8
Total All Sectors	536	100%	589

Daily

Summer

	<u>lbs/day</u>
2019	9,262.49
2020	8,468.10
Max Daily Emissions	9,262.49

<u>Source</u>	<u>lbs/day</u>
Area	0.05
Energy	82.32
Mobile	3,923.27
Total All Sectors	4,005.64

Winter

	<u>lbs/day</u>
2019	9,240.38
2020	8,322.34
Max Daily Emissions	9,240.38

<u>Source</u>	<u>lbs/day</u>
Area	0.05
Energy	82.32
Mobile	3,530.74
Total All Sectors	3,613.11

Max Daily

	<u>lbs/day</u>
Total Construction	9,262

<u>Source</u>	<u>lbs/day</u>
Area	0
Energy	82
Mobile	3,923
Total All Sectors	4,006

CalEEMod Inputs - Desert Trails Prep Academy, Construction

Name: Desert Trails Preparatory Academy
Project Number: DTPA-01
Project Location: South of Pepperwood Street, North of Forest Park Lane, East of Mesa View Drive, Victorville, Ca
County/Air Basin: Mojave Desert Air Basin, San Bernardino County
Climate Zone: 10
Land Use Setting: Urban
Operational Year: 2020
Utility Company: Southern California Edison
Air Basin: Mojave Desert Air Basin
Air District: Mojave Desert Air Quality Management District (MDAQMD)

Project Site Acreage 8.89
Disturbed Site Acreage 4.76 Includes roadway improvements

Project Components	SQFT	Acres
Main Building	34,970	NA
Relocatable Building 1	1,440	NA
Relocatable Building 2	1,440	NA
Trash Enclosure	220	NA
TOTAL BUILDING	38,070	0.870
Parking Lot	16,152	0.37
Total Other Asphalt Surfaces	75,420	1.73
Olivera Road Improvements	4,356	0.10
Total Hardscape	17,995	0.41
Total Landscape	55,414	1.27
Total Other	169,337	3.89
		4.76

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Educational	Elementary School	38.070	1000 sqft	0.87	38,070
Parking	Surface Parking	16.152	1000 sqft	0.37	16,152
Parking	Other Asphalt Surfaces	79.776	1000 sqft	1.83	79,776
Parking	Other Non-asphalt Surfaces	73.409	1000 sqft	1.69	73,409
				4.76	

Architectural Coating

Percentage of Proposed Buildings'

Interior Painted: 100%

Percentage of Proposed Buildings'

Exterior Painted: 100%

CalEEMod Defaults

Interior Paint VOC content: 50 grams per liter

Exterior Paving VOC content: 100 grams per liter

Non-Residential Structures	Land Use Square Feet	CalEEMod Factor ²	Total Paintable Surface		
			Area	Paintable Interior Area ¹	Paintable Exterior Area ¹
Elementary School	38,070	2.0	76,140	57,105	19,035
			76,140	57,105	19,035
Parking Lot	16,152	6%	969	-	969
Other Asphalt Surfaces	79,776	6%	4,787		4,787
			5,756		5,756

¹ CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively.

² The program assumes the total surface for painting equals 2.7 times the floor square footage for residential and 2 times that for nonresidential square footage defined by the user. Architectural coatings for the parking lot is based on CalEEMod methodology applied to a surface parking lot (i.e., striping), in which 6% of surface area is painted.

³ 100% of the interior and exterior of buildings to be modernized will be painted

Construction Mitigation

MDAQMD Rule 403

Replace Ground Cover	PM10:	5	% Reduction
Replace Ground Cover	PM2.5:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM2.5:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph

Construction Activities and Schedule Assumptions: Desert Trails Prep Academy

* As provided by applicant

Construction Activities	Phase Type	Construction Schedule		
		Start Date	End Date	CalEEMod Duration (Workday)
Site Preparation - School + Road	Site Preparation	10/31/2019	11/29/2019	22
Rough Grading - (School + Road)	Grading	10/31/2019	11/29/2019	22
Building Construction (School)	Building Construction	12/1/2019	4/27/2020	106
Utility Trenching (School + Road)	Trenching	2/25/2020	4/6/2020	30
Architectural Coating (School)*	Architectural Coating	4/14/2020	4/27/2020	10
Fine Grading (School + Road)	Grading	4/17/2020	5/5/2020	13
Asphalt Paving (School)	Paving	4/27/2020	5/8/2020	10
Foundation Road (Aggregate Base/Base)	Grading	5/6/2020	5/20/2020	11
Asphalt Paving Road (Topcoat)	Paving	5/21/2020	5/22/2020	2
Finishing/Landscaping (School + Road)	Trenching	5/28/2020	6/17/2020	15

Equipment is assumed to be shared for overlapping phases for the school and roadway construction.

CalEEMod Construction Off-Road Equipment Inputs

**Based on CalEEMod defaults*

General Construction Hours: 8 hours btwn 7:00 AM to 4:00 PM (with 1 hr break), Mon-Fri

Construction Equipment Details						
Equipment	model	# of Equipment	hr/day	hp	load factor*	total trips
Site Preparation						
Scrapers	623	2	8	330	0.4824	
Dozer	D6	1	8	165	0.3953	
Skiploader	210 LE	1	8	80	0.3685	
Motor grader	140G	1	8	150	0.4087	
Loader	950	1	8	130	0.3685	
Worker Trips						10
Vendor Trips						
Hauling Trips						0
Water Trucks						2
Rough Grading						
Motor grader	140G	1	8	150	0.4087	
Scrapers	623	2	8	330	0.4824	
Dozer	D6	1	8	165	0.3953	
Skiploader	210 LE	1	8	80	0.3685	
Loader	950	1	8	130	0.3685	
Worker Trips						10
Vendor Trips						0
Hauling Trips						0
Water Trucks						2
Building Construction						
Skip Loader	John Deere 310	1	8	40	0.37	
Backhoe	John Deere 210	1	8	40	0.37	
Crane	Linkbelt HC-278H	1	8	430	0.29	
Worker Trips						87
Vendor Trips						34
Hauling Trips						
Utility Trenching						
Scrapers	623	2	8	330	0.48	
Skiploader	210 LE	1	8	80	0.3685	
Motor grader	140G	1	8	150	0.4087	
Worker Trips						10
Vendor Trips						0
Hauling Trips						0
Water Trucks						2
Architectural Coating (surface lots, etc...)						
Air Compressors		1	8	78	0.48	
Worker Trips						12
Vendor Trips						0
Hauling Trips						0
Water Trucks						0
Fine Grading						
Scrapers	623	2	8	330	0.4824	
Skiploader	210 LE	1	8	80	0.3685	
Motor grader	140G	1	8	150	0.4087	
Worker Trips						10
Vendor Trips						0
Hauling Trips						0
Water Trucks						2
Foundation (Aggregate Base/Base) - Roadway						
Motor grader	140G	1	8	150	0.4087	
Skiploader	210 LE	1	8	80	0.3685	
Scrapers	623	1	8	330	0.4824	
Asphalt Paver	Leeboy 8520	1	8	106	0.4154	
Roller	10 Ton	1	8	80	0.3752	
RTR	Dynapac CP2700	1	8	99	0.3752	
Worker Trips						10
Vendor Trips						
Hauling Trips						
Water Trucks						2
Asphalt Paving - School						
Asphalt Paver	Leeboy 8520	1	8	106	0.4154	
RTR	Dynapac CP2700	1	8	99	0.3752	
Roller	10 Ton	1	8	80	0.3752	
Skiploader	210 LE	1	8	80	0.3685	
Worker Trips						12
Vendor Trips						
Hauling Trips						
Water Trucks						2
Paving (Topcoat) - Roadway						
Asphalt Paver	Leeboy 8520	1	8	106	0.4154	
Skiploader	210 LE	1	8	80	0.3685	
Roller	10 Ton	1	8	80	0.3752	
RTR	Dynapac CP2700	1	8	99	0.3752	
Worker Trips						12
Vendor Trips						
Hauling Trips						
Water Trucks						2
Finishing/Landscaping						
Mini Excavator	John Deere 26.6G	1	8	20	0.3819	
Skid Steer	Bobcat S550	1	8	35	0.3685	
Reach Lift	Grade-all 544D10	1	8	150	0.3082	
Worker Trips						12
Vendor Trips						
Hauling Trips						
Water Trucks						

Construction Trips Worksheet

School Campus

Phase Name	Worker Trip Ends Per			Vendor Trip Ends Per		Haul Truck Trip Ends		Total Haul Truck Trip Ends
	Day	Day	Day	Day	Day	Per Day	Duration	
Site Preparation - School + Road	10	2	0	0	22	0		
Rough Grading - (School + Road)	10	2	0	0	22	0		
Building Construction (School)	87	34	0	0	106	0		
Utility Trenching (School + Road)	10	2	0	0	30	0		
Architectural Coating (School)*	12	0	0	0	10	0		
Fine Grading (School + Road)	10	2	0	0	13	0		
Foundation Road (Aggregate Base/Base)	10	2	0	0	11	0		
Asphalt Paving (School)	12	2	0	0	10	0		
Asphalt Paving Road (Topcoat)	12	2	0	0	2	0		
Finishing/Landscaping (School + Road)	12	0	0	0	15	0		

CalEEMod Inputs - Desert Trails Prep Academy, Operation

Name: Desert Trails Preparatory Academy
Project Number: DTPA-01
Project Location: South of Pepperwood Street, North of Forest Park Lane, East of Mesa View Drive, Victorville, Ca
County/Air Basin: Mojave Desert Air Basin, San Bernardino County
Climate Zone: 10
Land Use Setting: Urban
Operational Year: 2020
Utility Company: Southern California Edison
Air Basin: Mojave Desert Air Basin
Air District: Mojave Desert Air Quality Management District (MDAQMD)

Total Students	550
Relocated MS	90
New Students	460

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Educational	Elementary School	38.070	1000 sqft	0.870	38,070
Parking	Surface Parking	16.152	1000 sqft	0.371	16,152
Parking	Other Asphalt Surfaces	79.776	1000 sqft	1.831	79,776
Parking	Other Non-asphalt Surfaces	73.409	1000 sqft	1.685	73,409
				4.76	

Trip Generation

Land Use Type	Average Daily Trips	CalEEMod Trip Rate
Elementary School	851	22.35

Source: Environment Planning Development Solutions, Inc. 2019. Desert Trails Preparatory Academy Traffic Impact Analysis

Water Use

CalEEMod Inputs

Land Use	gallons/1000sqft per day	gallons/day	gallons/year
Indoor	56.50	2,138.53	780,561.63
Outdoor	145.30	5,499.61	2,007,355.83
Total:	201.80	7,638.13	2,787,917.45

Source: PlaceWorks. 2019. Desert Trails Preparatory Academy Initial Study: Utilities and Service Systems.

*Assumes 100% aerobic treatment.

Solid Waste CalEEMod Defaults*

Land Use	Generation Rate (lbs/SF/day)	Total Solid Waste (lbs/day)	Total Solid Waste (tons/yr)
	0.007	264.95	48.35

* Based on PlaceWorks utilities study (0.007lb/sqft/day) divided by total bsf minus trash enclosure

Architectural Coating

see Construction Assumptions

Electricity (Buildings)

Modeling is conservative because the carbon intensity of electricity does not account for additional reductions from the 33% RPS and 50% RPS under SB 350.

Buildings constructed after January 1, 2020 are required to meet the 2019 Building and Energy Efficiency Standards. The 2019 Standards are 30% more energy efficient for non-residential buildings and 7% more energy efficient for single family residential buildings than the 2016 Building and Energy Efficiency Standards.

Non-Residential Exceed Title 24	30%	Improvement over 2016
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Sources:

¹ California Energy Commission (CEC). 2018. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. Accessed on April 3, 2019. http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

*Residential improvement over 2016 is for single-family homes only.

*Multi-family of 4 stories and higher are treated as non-residential for the Building and Energy Efficiency Standards.

Southern California Edison Carbon Intensity Factors

CO ₂ : ^{1,2}	504.43634	pounds per megawatt hour
CH ₄ : ³	0.029	pound per megawatt hour
N ₂ O: ³	0.00617	pound per megawatt hour

¹ Based on CO₂e intensity factor of 507 pounds per megawatt hour; Southern California Edison. 2019, May. 2018 Sustainability Report. <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2018-sustainability-report.pdf>.

² Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH₄ and N₂O; Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007.

³ CalEEMod default values.

Changes to the CalEEMod Defaults - Fleet Mix 2020

Average Daily Trips: 851

Default	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
FleetMix	0.546179	0.037976	0.179086	0.122965	0.01843	0.00546	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082	100%
Trips	465	32	152	105	16	5	15	52	1	1	5	1	1	851
Percent	0.77			0.12		0.11								
Proportion	0.709915	0.049361	0.232773	1.000000	0.171162	0.050708	0.162497	0.570192	0.012417	0.015389	0.007951	0.007588	0.010049	
Assumed Mix	0.97			0.02		0.01						100%		
Assumed	0.688618	0.047880	0.225790	0.020000	0.001712	0.000507	0.001625	0.005702	0.000124	0.000154	0.007712	0.000076	0.000100	100%
Trips	586	41	192	17	1	0	1	5	0	0	7	0	0	851
Calibrated for zero heavy-duty trucks	0.688618	0.047880	0.225790	0.020000	0.001712	0.000507	0.001625	0	0	0	0.007712	0.001400	0	99.5%
Modified	0.691909	0.048109	0.226869	0.020096	0.001720	0.000510	0.001633	0	0	0	0.007749	0.001407	0	100.0%
Trips	589	41	193	17	1	0	1	0	0	0	7	1	0	851
Assumed Mix	97%			2%		1%								100%

Fleet mix for the project is modified to reflect a higher proportion of passenger vehicles that the regional VMT. Assumes a mix of approximately 97% passenger vehicles, 2% medium duty trucks, and 1% heavy duty trucks and buses.

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Desert Trails Prep Academy Construction Run
San Bernardino-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	38.07	1000sqft	0.87	38,070.00	0
Other Asphalt Surfaces	79.78	1000sqft	1.83	79,776.00	0
Other Non-Asphalt Surfaces	73.41	1000sqft	1.69	73,409.00	0
Parking Lot	16.15	1000sqft	0.37	16,152.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	504.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Project Characteristics - updated SCE Carbon Intensity Factors

Land Use -

Construction Phase - based on applicant schedule

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file for equipment mix provided by applicant

Off-road Equipment - see assumptions file

Trips and VMT - 2 trps per worker per day, 2 VT per water truck

Grading -

Architectural Coating - non-paintable area removed from parking area

Vehicle Trips - calculated based on 851 new trips from 460 additional students divided by bsf

Area Coating - nonpaintable area removed from parking sqft

Energy Use -

Water And Wastewater - based on PlaceWorks utilities study (56.5 g/1000 sqft per day and 145.3 g/1,000 sqft per day) divided by total bsf excluding trash enclosure

Solid Waste - based on PlaceWorks utilities study (0.007lb/sqft/day) divided by total bsf minus trash enclosure

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Fleet Mix - see assumptions file for fleet mix calculations

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	10,160.00	5,756.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_Parking	10160	5756
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	10.00
tblConstructionPhase	NumDays	230.00	106.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	NumDays	8.00	13.00
tblConstructionPhase	NumDays	8.00	11.00
tblConstructionPhase	NumDays	18.00	10.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	NumDays	5.00	22.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.55	0.69
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.18	0.23
tblFleetMix	LHD1	0.02	1.7200e-003
tblFleetMix	LHD2	5.4600e-003	5.1000e-004
tblFleetMix	MCY	6.1170e-003	7.7490e-003
tblFleetMix	MDV	0.12	0.02
tblFleetMix	MH	1.0820e-003	0.00
tblFleetMix	MHD	0.02	1.6330e-003
tblFleetMix	OBUS	1.3370e-003	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

tblFleetMix	SBUS	8.1700e-004	1.4070e-003
tblFleetMix	UBUS	1.6570e-003	0.00
tblLandUse	LandUseSquareFeet	79,780.00	79,776.00
tblLandUse	LandUseSquareFeet	73,410.00	73,409.00
tblLandUse	LandUseSquareFeet	16,150.00	16,152.00
tblOffRoadEquipment	HorsePower	231.00	430.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	80.00	99.00
tblOffRoadEquipment	HorsePower	80.00	99.00
tblOffRoadEquipment	HorsePower	247.00	165.00
tblOffRoadEquipment	HorsePower	247.00	165.00
tblOffRoadEquipment	HorsePower	97.00	40.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	HorsePower	63.00	150.00
tblOffRoadEquipment	HorsePower	158.00	20.00
tblOffRoadEquipment	HorsePower	187.00	150.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	80.00	99.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	65.00	35.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblSolidWaste	SolidWasteGenerationRate	49.49	48.35
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	17.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblVehicleTrips	WD_TR	15.43	22.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,103,912.64	780,561.63
tblWater	OutdoorWaterUseRate	2,838,632.50	2,007,355.82
tblWater	SepticTankPercent	10.33	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.8730	86.1109	56.0683	0.0927	17.5381	4.0563	21.5944	7.2444	3.7319	10.9763	0.0000	9,191.758 3	9,191.758 3	2.8294	0.0000	9,262.493 3
2020	30.9981	56.1844	44.0337	0.0857	3.9027	2.5954	6.4980	0.6241	2.4003	3.0243	0.0000	8,417.1105 5	8,417.1105 5	2.0397	0.0000	8,468.102 5
Maximum	30.9981	86.1109	56.0683	0.0927	17.5381	4.0563	21.5944	7.2444	3.7319	10.9763	0.0000	9,191.758 3	9,191.758 3	2.8294	0.0000	9,262.493 3

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.8730	86.1109	56.0683	0.0927	7.6071	4.0563	11.6634	3.1264	3.7319	6.8583	0.0000	9,191.758 3	9,191.758 3	2.8294	0.0000	9,262.493 3
2020	30.9981	56.1844	44.0337	0.0857	2.3848	2.5954	4.9802	0.4602	2.4003	2.8604	0.0000	8,417.1105 5	8,417.110 5	2.0397	0.0000	8,468.102 5
Maximum	30.9981	86.1109	56.0683	0.0927	7.6071	4.0563	11.6634	3.1264	3.7319	6.8583	0.0000	9,191.758 3	9,191.758 3	2.8294	0.0000	9,262.493 3

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.40	0.00	40.75	54.42	0.00	30.58	0.00	0.00	0.00	0.00	0.00	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Energy	9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305
Mobile	1.6081	1.4434	15.8680	0.0394	3.9274	0.0267	3.9541	1.0431	0.0247	1.0677		3,919.8081	3,919.8081	0.1384		3,923.2680
Total	2.5624	1.5332	15.9646	0.0399	3.9274	0.0336	3.9610	1.0431	0.0316	1.0746		4,027.3452	4,027.3452	0.1406	1.9700e-003	4,031.4470

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Energy	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199
Mobile	1.6081	1.4434	15.8680	0.0394	3.9274	0.0267	3.9541	1.0431	0.0247	1.0677		3,919.8081	3,919.8081	0.1384		3,923.2680
Total	2.5600	1.5118	15.9666	0.0398	3.9274	0.0320	3.9594	1.0431	0.0299	1.0730		4,001.6871	4,001.6871	0.1401	1.5000e-003	4,005.6363

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.09	1.40	0.11	0.33	0.00	4.85	0.04	0.00	5.17	0.15	0.00	0.64	0.64	0.35	23.86	0.64

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation - School + Road	Site Preparation	10/31/2019	11/29/2019	5	22	
2	Rough Grading - (School + Road)	Grading	10/31/2019	11/29/2019	5	22	
3	Building Construction	Building Construction	12/1/2019	4/27/2020	5	106	
4	Utility Trenching (School + Road)	Trenching	2/25/2020	4/6/2020	5	30	
5	Architectural Coating (School)	Architectural Coating	4/14/2020	4/27/2020	5	10	
6	Fine Grading (School + Road)	Grading	4/17/2020	5/5/2020	5	13	
7	Asphalt Paving (School)	Paving	4/27/2020	5/8/2020	5	10	
8	Foundation Road (Aggregate Base/Base)	Grading	5/6/2020	5/20/2020	5	11	
9	Asphalt Paving Road (Topcoat)	Paving	5/21/2020	5/22/2020	5	2	
10	Finishing/Landscaping (School + Road)	Trenching	5/28/2020	6/17/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.89

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 57,105; Non-Residential Outdoor: 19,035; Striped Parking Area: 5,756 (Architectural Coating – sqft)

OffRoad Equipment

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation - School + Road	Graders	1	8.00	150	0.41
Site Preparation - School + Road	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation - School + Road	Rubber Tired Dozers	1	8.00	165	0.40
Site Preparation - School + Road	Scrapers	2	8.00	330	0.48
Site Preparation - School + Road	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation - School + Road	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Site Preparation - School + Road	Tractors/Loaders/Backhoes	1	8.00	130	0.37
Rough Grading - (School + Road)	Excavators	0	8.00	158	0.38
Rough Grading - (School + Road)	Graders	0	8.00	187	0.41
Rough Grading - (School + Road)	Graders	1	8.00	150	0.41
Rough Grading - (School + Road)	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading - (School + Road)	Rubber Tired Dozers	1	8.00	165	0.40
Rough Grading - (School + Road)	Scrapers	2	8.00	330	0.48
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	1	8.00	130	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Cranes	1	8.00	430	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	40	0.37
Building Construction	Welders	0	8.00	46	0.45
Utility Trenching (School + Road)	Graders	1	8.00	150	0.41
Utility Trenching (School + Road)	Scrapers	2	8.00	330	0.48
Utility Trenching (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Architectural Coating (School)	Air Compressors	1	8.00	78	0.48
Fine Grading (School + Road)	Excavators	0	8.00	158	0.38
Fine Grading (School + Road)	Graders	0	8.00	187	0.41
Fine Grading (School + Road)	Graders	1	8.00	150	0.41
Fine Grading (School + Road)	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading (School + Road)	Scrapers	2	8.00	330	0.48
Fine Grading (School + Road)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Fine Grading (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Asphalt Paving (School)	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving (School)	Pavers	0	8.00	130	0.42
Asphalt Paving (School)	Pavers	1	8.00	106	0.42
Asphalt Paving (School)	Paving Equipment	0	6.00	132	0.36
Asphalt Paving (School)	Rollers	0	6.00	80	0.38
Asphalt Paving (School)	Rollers	1	8.00	99	0.38
Asphalt Paving (School)	Rollers	1	8.00	80	0.38
Asphalt Paving (School)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Paving (School)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Foundation Road (Aggregate Base/Base)	Excavators	0	8.00	158	0.38
Foundation Road (Aggregate Base/Base)	Graders	0	8.00	187	0.41
Foundation Road (Aggregate Base/Base)	Graders	1	8.00	150	0.41
Foundation Road (Aggregate Base/Base)	Pavers	1	8.00	106	0.42
Foundation Road (Aggregate Base/Base)	Rollers	1	8.00	80	0.38
Foundation Road (Aggregate Base/Base)	Rollers	1	8.00	99	0.38
Foundation Road (Aggregate Base/Base)	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Road (Aggregate Base/Base)	Scrapers	1	8.00	330	0.48

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Foundation Road (Aggregate Base/Base)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation Road (Aggregate Base/Base)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Asphalt Paving Road (Topcoat)	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving Road (Topcoat)	Pavers	0	8.00	130	0.42
Asphalt Paving Road (Topcoat)	Pavers	1	8.00	106	0.42
Asphalt Paving Road (Topcoat)	Paving Equipment	0	6.00	132	0.36
Asphalt Paving Road (Topcoat)	Rollers	0	6.00	80	0.38
Asphalt Paving Road (Topcoat)	Rollers	1	8.00	80	0.38
Asphalt Paving Road (Topcoat)	Rollers	1	8.00	99	0.38
Asphalt Paving Road (Topcoat)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Paving Road (Topcoat)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Finishing/Landscaping (School + Road)	Aerial Lifts	1	8.00	150	0.31
Finishing/Landscaping (School + Road)	Excavators	1	8.00	20	0.38
Finishing/Landscaping (School + Road)	Skid Steer Loaders	1	8.00	35	0.37

Trips and VMT

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation - (School + Road)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading - (School + Road)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	87.00	34.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching (School + Road)	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (School)	1	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (School + Road)	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving (School)	4	12.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Road (Aggregate Base/Base)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving Road (Topcoat)	4	12.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping (School + Road)	3	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.2 Site Preparation - School + Road - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640		4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	8.6733	2.0261	10.6994	3.5965	1.8640	5.4605		4,449.6238	4,449.6238	1.4078		4,484.8191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2352	0.0480	5.7000e-004	0.0136	1.5200e-003	0.0151	3.9000e-003	1.4500e-003	5.3500e-003		59.9302	59.9302	3.9400e-003		60.0286
Worker	0.0482	0.0301	0.3799	8.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		86.3252	86.3252	2.9500e-003		86.3989
Total	0.0556	0.2653	0.4278	1.4400e-003	0.0957	2.0900e-003	0.0978	0.0257	1.9800e-003	0.0277		146.2554	146.2554	6.8900e-003		146.4275

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.2 Site Preparation - School + Road - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7079	0.0000	3.7079	1.5375	0.0000	1.5375			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	3.7079	2.0261	5.7339	1.5375	1.8640	3.4015	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2352	0.0480	5.7000e-004	0.0136	1.5200e-003	0.0151	3.9000e-003	1.4500e-003	5.3500e-003		59.9302	59.9302	3.9400e-003		60.0286
Worker	0.0482	0.0301	0.3799	8.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		86.3252	86.3252	2.9500e-003		86.3989
Total	0.0556	0.2653	0.4278	1.4400e-003	0.0957	2.0900e-003	0.0978	0.0257	1.9800e-003	0.0277		146.2554	146.2554	6.8900e-003		146.4275

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.3 Rough Grading - (School + Road) - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640		4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	8.6733	2.0261	10.6994	3.5965	1.8640	5.4605		4,449.6238	4,449.6238	1.4078		4,484.8191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2352	0.0480	5.7000e-004	0.0136	1.5200e-003	0.0151	3.9000e-003	1.4500e-003	5.3500e-003		59.9302	59.9302	3.9400e-003		60.0286
Worker	0.0482	0.0301	0.3799	8.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		86.3252	86.3252	2.9500e-003		86.3989
Total	0.0556	0.2653	0.4278	1.4400e-003	0.0957	2.0900e-003	0.0978	0.0257	1.9800e-003	0.0277		146.2554	146.2554	6.8900e-003		146.4275

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.3 Rough Grading - (School + Road) - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7079	0.0000	3.7079	1.5375	0.0000	1.5375			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	3.7079	2.0261	5.7339	1.5375	1.8640	3.4015	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2352	0.0480	5.7000e-004	0.0136	1.5200e-003	0.0151	3.9000e-003	1.4500e-003	5.3500e-003		59.9302	59.9302	3.9400e-003		60.0286
Worker	0.0482	0.0301	0.3799	8.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		86.3252	86.3252	2.9500e-003		86.3989
Total	0.0556	0.2653	0.4278	1.4400e-003	0.0957	2.0900e-003	0.0978	0.0257	1.9800e-003	0.0277		146.2554	146.2554	6.8900e-003		146.4275

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087		1,338.0699	1,338.0699	0.4234		1,348.6537
Total	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087		1,338.0699	1,338.0699	0.4234		1,348.6537

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1255	3.9985	0.8152	9.6700e-003	0.2303	0.0258	0.2562	0.0663	0.0247	0.0910		1,018.8136	1,018.8136	0.0669		1,020.4862
Worker	0.4197	0.2615	3.3049	7.5500e-003	0.7147	4.9600e-003	0.7197	0.1896	4.5700e-003	0.1941		751.0293	751.0293	0.0257		751.6707
Total	0.5452	4.2601	4.1201	0.0172	0.9450	0.0308	0.9758	0.2559	0.0293	0.2852		1,769.8429	1,769.8429	0.0926		1,772.1569

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087	0.0000	1,338.0699	1,338.0699	0.4234		1,348.6537
Total	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087	0.0000	1,338.0699	1,338.0699	0.4234		1,348.6537

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1255	3.9985	0.8152	9.6700e-003	0.2303	0.0258	0.2562	0.0663	0.0247	0.0910		1,018.8136	1,018.8136	0.0669		1,020.4862
Worker	0.4197	0.2615	3.3049	7.5500e-003	0.7147	4.9600e-003	0.7197	0.1896	4.5700e-003	0.1941		751.0293	751.0293	0.0257		751.6707
Total	0.5452	4.2601	4.1201	0.0172	0.9450	0.0308	0.9758	0.2559	0.0293	0.2852		1,769.8429	1,769.8429	0.0926		1,772.1569

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515		1,308.6259	1,308.6259	0.4232		1,319.2068
Total	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515		1,308.6259	1,308.6259	0.4232		1,319.2068

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1060	3.6570	0.7154	9.6000e-003	0.2303	0.0174	0.2478	0.0663	0.0167	0.0830		1,011.8711	1,011.8711	0.0638		1,013.4667
Worker	0.3861	0.2322	2.9804	7.3100e-003	0.7147	4.8300e-003	0.7195	0.1896	4.4500e-003	0.1940		727.6523	727.6523	0.0226		728.2179
Total	0.4922	3.8892	3.6958	0.0169	0.9450	0.0223	0.9673	0.2559	0.0211	0.2770		1,739.5234	1,739.5234	0.0864		1,741.6846

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.4 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515	0.0000	1,308.6259	1,308.6259	0.4232		1,319.2068
Total	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515	0.0000	1,308.6259	1,308.6259	0.4232		1,319.2068

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1060	3.6570	0.7154	9.6000e-003	0.2303	0.0174	0.2478	0.0663	0.0167	0.0830		1,011.8711	1,011.8711	0.0638		1,013.4667
Worker	0.3861	0.2322	2.9804	7.3100e-003	0.7147	4.8300e-003	0.7195	0.1896	4.4500e-003	0.1940		727.6523	727.6523	0.0226		728.2179
Total	0.4922	3.8892	3.6958	0.0169	0.9450	0.0223	0.9673	0.2559	0.0211	0.2770		1,739.5234	1,739.5234	0.0864		1,741.6846

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.5 Utility Trenching (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672		3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672		3,404.8033	3,404.8033	1.1012		3,432.3329

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0444	0.0267	0.3426	8.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		83.6382	83.6382	2.6000e-003		83.7032
Total	0.0506	0.2418	0.3847	1.4000e-003	0.0957	1.5800e-003	0.0973	0.0257	1.4900e-003	0.0272		143.1600	143.1600	6.3500e-003		143.3189

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.5 Utility Trenching (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0444	0.0267	0.3426	8.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		83.6382	83.6382	2.6000e-003		83.7032
Total	0.0506	0.2418	0.3847	1.4000e-003	0.0957	1.5800e-003	0.0973	0.0257	1.4900e-003	0.0272		143.1600	143.1600	6.3500e-003		143.3189

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.6 Architectural Coating (School) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.9904
Total	25.0476	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.9904

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.6 Architectural Coating (School) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.9904
Total	25.0476	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.9904

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.7 Fine Grading (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672		3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352	2.6513	1.2687	3.9200	0.2863	1.1672	1.4535		3,404.8033	3,404.8033	1.1012		3,432.3329

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0444	0.0267	0.3426	8.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		83.6382	83.6382	2.6000e-003		83.7032
Total	0.0506	0.2418	0.3847	1.4000e-003	0.0957	1.5800e-003	0.0973	0.0257	1.4900e-003	0.0272		143.1600	143.1600	6.3500e-003		143.3189

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.7 Fine Grading (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1334	0.0000	1.1334	0.1224	0.0000	0.1224			0.0000			0.0000
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352	1.1334	1.2687	2.4022	0.1224	1.1672	1.2896	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0444	0.0267	0.3426	8.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		83.6382	83.6382	2.6000e-003		83.7032
Total	0.0506	0.2418	0.3847	1.4000e-003	0.0957	1.5800e-003	0.0973	0.0257	1.4900e-003	0.0272		143.1600	143.1600	6.3500e-003		143.3189

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.8 Asphalt Paving (School) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5837	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0595	0.2472	0.4532	1.5700e-003	0.1121	1.6900e-003	0.1138	0.0301	1.5900e-003	0.0316		159.8877	159.8877	6.8700e-003		160.0595

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.8 Asphalt Paving (School) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5837	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0595	0.2472	0.4532	1.5700e-003	0.1121	1.6900e-003	0.1138	0.0301	1.5900e-003	0.0316		159.8877	159.8877	6.8700e-003		160.0595

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.9 Foundation Road (Aggregate Base/Base) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.5148	26.4350	19.5808	0.0312		1.4085	1.4085		1.2959	1.2959		3,023.1128	3,023.1128	0.9777		3,047.5562
Total	2.5148	26.4350	19.5808	0.0312	1.5908	1.4085	2.9993	0.1718	1.2959	1.4676		3,023.1128	3,023.1128	0.9777		3,047.5562

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0444	0.0267	0.3426	8.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		83.6382	83.6382	2.6000e-003		83.7032
Total	0.0506	0.2418	0.3847	1.4000e-003	0.0957	1.5800e-003	0.0973	0.0257	1.4900e-003	0.0272		143.1600	143.1600	6.3500e-003		143.3189

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.9 Foundation Road (Aggregate Base/Base) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	2.5148	26.4350	19.5808	0.0312		1.4085	1.4085		1.2959	1.2959	0.0000	3,023.1128	3,023.1128	0.9777		3,047.5561
Total	2.5148	26.4350	19.5808	0.0312	0.6801	1.4085	2.0886	0.0734	1.2959	1.3693	0.0000	3,023.1128	3,023.1128	0.9777		3,047.5561

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0444	0.0267	0.3426	8.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		83.6382	83.6382	2.6000e-003		83.7032
Total	0.0506	0.2418	0.3847	1.4000e-003	0.0957	1.5800e-003	0.0973	0.0257	1.4900e-003	0.0272		143.1600	143.1600	6.3500e-003		143.3189

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.10 Asphalt Paving Road (Topcoat) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.8893	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0595	0.2472	0.4532	1.5700e-003	0.1121	1.6900e-003	0.1138	0.0301	1.5900e-003	0.0316		159.8877	159.8877	6.8700e-003		160.0595

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.10 Asphalt Paving Road (Topcoat) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.8893	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.2400e-003	0.2151	0.0421	5.6000e-004	0.0136	1.0200e-003	0.0146	3.9000e-003	9.8000e-004	4.8800e-003		59.5218	59.5218	3.7500e-003		59.6157
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0595	0.2472	0.4532	1.5700e-003	0.1121	1.6900e-003	0.1138	0.0301	1.5900e-003	0.0316		159.8877	159.8877	6.8700e-003		160.0595

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.11 Finishing/Landscaping (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578		190.9601	190.9601	0.0618		192.5041
Total	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578		190.9601	190.9601	0.0618		192.5041

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

3.11 Finishing/Landscaping (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578	0.0000	190.9601	190.9601	0.0618		192.5041
Total	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578	0.0000	190.9601	190.9601	0.0618		192.5041

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438
Total	0.0533	0.0320	0.4111	1.0100e-003	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		100.3658	100.3658	3.1200e-003		100.4438

4.0 Operational Detail - Mobile

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6081	1.4434	15.8680	0.0394	3.9274	0.0267	3.9541	1.0431	0.0247	1.0677		3,919.808 1	3,919.808 1	0.1384		3,923.268 0
Unmitigated	1.6081	1.4434	15.8680	0.0394	3.9274	0.0267	3.9541	1.0431	0.0247	1.0677		3,919.808 1	3,919.808 1	0.1384		3,923.268 0

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	850.86	0.00	0.00	1,340,075	1,340,075
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	850.86	0.00	0.00	1,340,075	1,340,075

4.3 Trip Type Information

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.691909	0.048109	0.226869	0.020096	0.001720	0.000510	0.001633	0.000000	0.000000	0.000000	0.007749	0.001407	0.000000
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199
NaturalGas Unmitigated	9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	913.68	9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.695586	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199

6.0 Area Detail

6.1 Mitigation Measures Area

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Unmitigated	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-003	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Total	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-003	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Total	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Summer

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

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

Equipment Type	Number
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11.0 Vegetation

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Desert Trails Prep Academy Construction Run
San Bernardino-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	38.07	1000sqft	0.87	38,070.00	0
Other Asphalt Surfaces	79.78	1000sqft	1.83	79,776.00	0
Other Non-Asphalt Surfaces	73.41	1000sqft	1.69	73,409.00	0
Parking Lot	16.15	1000sqft	0.37	16,152.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	504.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Project Characteristics - updated SCE Carbon Intensity Factors

Land Use -

Construction Phase - based on applicant schedule

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file for equipment mix provided by applicant

Off-road Equipment - see assumptions file

Trips and VMT - 2 trps per worker per day, 2 VT per water truck

Grading -

Architectural Coating - non-paintable area removed from parking area

Vehicle Trips - calculated based on 851 new trips from 460 additional students divided by bsf

Area Coating - nonpaintable area removed from parking sqft

Energy Use -

Water And Wastewater - based on PlaceWorks utilities study (56.5 g/1000 sqft per day and 145.3 g/1,000 sqft per day) divided by total bsf excluding trash enclosure

Solid Waste - based on PlaceWorks utilities study (0.007lb/sqft/day) divided by total bsf minus trash enclosure

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Fleet Mix - see assumptions file for fleet mix calculations

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	10,160.00	5,756.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_Parking	10160	5756
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	10.00
tblConstructionPhase	NumDays	230.00	106.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	NumDays	8.00	13.00
tblConstructionPhase	NumDays	8.00	11.00
tblConstructionPhase	NumDays	18.00	10.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	NumDays	5.00	22.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.55	0.69
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.18	0.23
tblFleetMix	LHD1	0.02	1.7200e-003
tblFleetMix	LHD2	5.4600e-003	5.1000e-004
tblFleetMix	MCY	6.1170e-003	7.7490e-003
tblFleetMix	MDV	0.12	0.02
tblFleetMix	MH	1.0820e-003	0.00
tblFleetMix	MHD	0.02	1.6330e-003
tblFleetMix	OBUS	1.3370e-003	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

tblFleetMix	SBUS	8.1700e-004	1.4070e-003
tblFleetMix	UBUS	1.6570e-003	0.00
tblLandUse	LandUseSquareFeet	79,780.00	79,776.00
tblLandUse	LandUseSquareFeet	73,410.00	73,409.00
tblLandUse	LandUseSquareFeet	16,150.00	16,152.00
tblOffRoadEquipment	HorsePower	231.00	430.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	80.00	99.00
tblOffRoadEquipment	HorsePower	80.00	99.00
tblOffRoadEquipment	HorsePower	247.00	165.00
tblOffRoadEquipment	HorsePower	247.00	165.00
tblOffRoadEquipment	HorsePower	97.00	40.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	HorsePower	63.00	150.00
tblOffRoadEquipment	HorsePower	158.00	20.00
tblOffRoadEquipment	HorsePower	187.00	150.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	80.00	99.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	367.00	330.00
tblOffRoadEquipment	HorsePower	65.00	35.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblSolidWaste	SolidWasteGenerationRate	49.49	48.35
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	17.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblVehicleTrips	WD_TR	15.43	22.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,103,912.64	780,561.63
tblWater	OutdoorWaterUseRate	2,838,632.50	2,007,355.82
tblWater	SepticTankPercent	10.33	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.8715	86.1119	55.9576	0.0925	17.5381	4.0564	21.5944	7.2444	3.7320	10.9763	0.0000	9,169.6380	9,169.6380	2.8295	0.0000	9,240.3760
2020	30.9926	56.1724	43.4704	0.0843	3.9027	2.5956	6.4983	0.6241	2.4005	3.0245	0.0000	8,271.2544	8,271.2544	2.0435	0.0000	8,322.3420
Maximum	30.9926	86.1119	55.9576	0.0925	17.5381	4.0564	21.5944	7.2444	3.7320	10.9763	0.0000	9,169.6380	9,169.6380	2.8295	0.0000	9,240.3760

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.8715	86.1119	55.9576	0.0925	7.6071	4.0564	11.6635	3.1264	3.7320	6.8583	0.0000	9,169.6380	9,169.6380	2.8295	0.0000	9,240.3760
2020	30.9926	56.1724	43.4704	0.0843	2.3848	2.5956	4.9804	0.4602	2.4005	2.8606	0.0000	8,271.2544	8,271.2544	2.0435	0.0000	8,322.3420
Maximum	30.9926	86.1119	55.9576	0.0925	7.6071	4.0564	11.6635	3.1264	3.7320	6.8583	0.0000	9,169.6380	9,169.6380	2.8295	0.0000	9,240.3760

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.40	0.00	40.75	54.42	0.00	30.58	0.00	0.00	0.00	0.00	0.00	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Energy	9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305
Mobile	1.3338	1.5132	13.8517	0.0354	3.9274	0.0267	3.9542	1.0431	0.0247	1.0678		3,527.4999	3,527.4999	0.1296		3,530.7394
Total	2.2880	1.6030	13.9483	0.0360	3.9274	0.0336	3.9610	1.0431	0.0316	1.0746		3,635.0370	3,635.0370	0.1318	1.9700e-003	3,638.9184

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Energy	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199
Mobile	1.3338	1.5132	13.8517	0.0354	3.9274	0.0267	3.9542	1.0431	0.0247	1.0678		3,527.4999	3,527.4999	0.1296		3,530.7394
Total	2.2857	1.5816	13.9303	0.0358	3.9274	0.0320	3.9594	1.0431	0.0299	1.0730		3,609.3789	3,609.3789	0.1313	1.5000e-003	3,613.1078

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.10	1.33	0.13	0.36	0.00	4.85	0.04	0.00	5.16	0.15	0.00	0.71	0.71	0.37	23.86	0.71

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation - School + Road	Site Preparation	10/31/2019	11/29/2019	5	22	
2	Rough Grading - (School + Road)	Grading	10/31/2019	11/29/2019	5	22	
3	Building Construction	Building Construction	12/1/2019	4/27/2020	5	106	
4	Utility Trenching (School + Road)	Trenching	2/25/2020	4/6/2020	5	30	
5	Architectural Coating (School)	Architectural Coating	4/14/2020	4/27/2020	5	10	
6	Fine Grading (School + Road)	Grading	4/17/2020	5/5/2020	5	13	
7	Asphalt Paving (School)	Paving	4/27/2020	5/8/2020	5	10	
8	Foundation Road (Aggregate Base/Base)	Grading	5/6/2020	5/20/2020	5	11	
9	Asphalt Paving Road (Topcoat)	Paving	5/21/2020	5/22/2020	5	2	
10	Finishing/Landscaping (School + Road)	Trenching	5/28/2020	6/17/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.89

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 57,105; Non-Residential Outdoor: 19,035; Striped Parking Area: 5,756 (Architectural Coating – sqft)

OffRoad Equipment

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation - School + Road	Graders	1	8.00	150	0.41
Site Preparation - School + Road	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation - School + Road	Rubber Tired Dozers	1	8.00	165	0.40
Site Preparation - School + Road	Scrapers	2	8.00	330	0.48
Site Preparation - School + Road	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation - School + Road	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Site Preparation - School + Road	Tractors/Loaders/Backhoes	1	8.00	130	0.37
Rough Grading - (School + Road)	Excavators	0	8.00	158	0.38
Rough Grading - (School + Road)	Graders	0	8.00	187	0.41
Rough Grading - (School + Road)	Graders	1	8.00	150	0.41
Rough Grading - (School + Road)	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading - (School + Road)	Rubber Tired Dozers	1	8.00	165	0.40
Rough Grading - (School + Road)	Scrapers	2	8.00	330	0.48
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	1	8.00	130	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Cranes	1	8.00	430	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	40	0.37
Building Construction	Welders	0	8.00	46	0.45
Utility Trenching (School + Road)	Graders	1	8.00	150	0.41
Utility Trenching (School + Road)	Scrapers	2	8.00	330	0.48
Utility Trenching (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Architectural Coating (School)	Air Compressors	1	8.00	78	0.48
Fine Grading (School + Road)	Excavators	0	8.00	158	0.38
Fine Grading (School + Road)	Graders	0	8.00	187	0.41
Fine Grading (School + Road)	Graders	1	8.00	150	0.41
Fine Grading (School + Road)	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading (School + Road)	Scrapers	2	8.00	330	0.48
Fine Grading (School + Road)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Fine Grading (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Asphalt Paving (School)	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving (School)	Pavers	0	8.00	130	0.42
Asphalt Paving (School)	Pavers	1	8.00	106	0.42
Asphalt Paving (School)	Paving Equipment	0	6.00	132	0.36
Asphalt Paving (School)	Rollers	0	6.00	80	0.38
Asphalt Paving (School)	Rollers	1	8.00	99	0.38
Asphalt Paving (School)	Rollers	1	8.00	80	0.38
Asphalt Paving (School)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Paving (School)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Foundation Road (Aggregate Base/Base)	Excavators	0	8.00	158	0.38
Foundation Road (Aggregate Base/Base)	Graders	0	8.00	187	0.41
Foundation Road (Aggregate Base/Base)	Graders	1	8.00	150	0.41
Foundation Road (Aggregate Base/Base)	Pavers	1	8.00	106	0.42
Foundation Road (Aggregate Base/Base)	Rollers	1	8.00	80	0.38
Foundation Road (Aggregate Base/Base)	Rollers	1	8.00	99	0.38
Foundation Road (Aggregate Base/Base)	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Road (Aggregate Base/Base)	Scrapers	1	8.00	330	0.48

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Foundation Road (Aggregate Base/Base)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation Road (Aggregate Base/Base)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Asphalt Paving Road (Topcoat)	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving Road (Topcoat)	Pavers	0	8.00	130	0.42
Asphalt Paving Road (Topcoat)	Pavers	1	8.00	106	0.42
Asphalt Paving Road (Topcoat)	Paving Equipment	0	6.00	132	0.36
Asphalt Paving Road (Topcoat)	Rollers	0	6.00	80	0.38
Asphalt Paving Road (Topcoat)	Rollers	1	8.00	80	0.38
Asphalt Paving Road (Topcoat)	Rollers	1	8.00	99	0.38
Asphalt Paving Road (Topcoat)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Paving Road (Topcoat)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Finishing/Landscaping (School + Road)	Aerial Lifts	1	8.00	150	0.31
Finishing/Landscaping (School + Road)	Excavators	1	8.00	20	0.38
Finishing/Landscaping (School + Road)	Skid Steer Loaders	1	8.00	35	0.37

Trips and VMT

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation - (School + Road)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading - (School + Road)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	87.00	34.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching (School + Road)	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (School)	1	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (School + Road)	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving (School)	4	12.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Road (Aggregate Base/Base)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving Road (Topcoat)	4	12.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping (School + Road)	3	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.2 Site Preparation - School + Road - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640		4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	8.6733	2.0261	10.6994	3.5965	1.8640	5.4605		4,449.6238	4,449.6238	1.4078		4,484.8191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7400e-003	0.2341	0.0550	5.5000e-004	0.0136	1.5400e-003	0.0151	3.9000e-003	1.4700e-003	5.3700e-003		57.7105	57.7105	4.3400e-003		57.8189
Worker	0.0471	0.0317	0.3175	7.8000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		77.4848	77.4848	2.6100e-003		77.5500
Total	0.0548	0.2658	0.3725	1.3300e-003	0.0957	2.1100e-003	0.0978	0.0257	2.0000e-003	0.0277		135.1952	135.1952	6.9500e-003		135.3689

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.2 Site Preparation - School + Road - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7079	0.0000	3.7079	1.5375	0.0000	1.5375			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	3.7079	2.0261	5.7339	1.5375	1.8640	3.4015	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7400e-003	0.2341	0.0550	5.5000e-004	0.0136	1.5400e-003	0.0151	3.9000e-003	1.4700e-003	5.3700e-003		57.7105	57.7105	4.3400e-003		57.8189
Worker	0.0471	0.0317	0.3175	7.8000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		77.4848	77.4848	2.6100e-003		77.5500
Total	0.0548	0.2658	0.3725	1.3300e-003	0.0957	2.1100e-003	0.0978	0.0257	2.0000e-003	0.0277		135.1952	135.1952	6.9500e-003		135.3689

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.3 Rough Grading - (School + Road) - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640		4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	8.6733	2.0261	10.6994	3.5965	1.8640	5.4605		4,449.6238	4,449.6238	1.4078		4,484.8191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7400e-003	0.2341	0.0550	5.5000e-004	0.0136	1.5400e-003	0.0151	3.9000e-003	1.4700e-003	5.3700e-003		57.7105	57.7105	4.3400e-003		57.8189
Worker	0.0471	0.0317	0.3175	7.8000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		77.4848	77.4848	2.6100e-003		77.5500
Total	0.0548	0.2658	0.3725	1.3300e-003	0.0957	2.1100e-003	0.0978	0.0257	2.0000e-003	0.0277		135.1952	135.1952	6.9500e-003		135.3689

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.3 Rough Grading - (School + Road) - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7079	0.0000	3.7079	1.5375	0.0000	1.5375			0.0000			0.0000
Off-Road	3.8809	42.7902	27.6063	0.0449		2.0261	2.0261		1.8640	1.8640	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191
Total	3.8809	42.7902	27.6063	0.0449	3.7079	2.0261	5.7339	1.5375	1.8640	3.4015	0.0000	4,449.6238	4,449.6238	1.4078		4,484.8191

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.7400e-003	0.2341	0.0550	5.5000e-004	0.0136	1.5400e-003	0.0151	3.9000e-003	1.4700e-003	5.3700e-003		57.7105	57.7105	4.3400e-003		57.8189
Worker	0.0471	0.0317	0.3175	7.8000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.3000e-004	0.0223		77.4848	77.4848	2.6100e-003		77.5500
Total	0.0548	0.2658	0.3725	1.3300e-003	0.0957	2.1100e-003	0.0978	0.0257	2.0000e-003	0.0277		135.1952	135.1952	6.9500e-003		135.3689

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087		1,338.0699	1,338.0699	0.4234		1,348.6537
Total	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087		1,338.0699	1,338.0699	0.4234		1,348.6537

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1316	3.9799	0.9343	9.3100e-003	0.2303	0.0262	0.2565	0.0663	0.0250	0.0913		981.0781	981.0781	0.0737		982.9214
Worker	0.4097	0.2754	2.7622	6.7700e-003	0.7147	4.9600e-003	0.7197	0.1896	4.5700e-003	0.1941		674.1174	674.1174	0.0227		674.6851
Total	0.5414	4.2554	3.6965	0.0161	0.9450	0.0311	0.9761	0.2559	0.0296	0.2855		1,655.1955	1,655.1955	0.0964		1,657.6065

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087	0.0000	1,338.0699	1,338.0699	0.4234		1,348.6537
Total	1.2481	11.8558	9.2460	0.0135		0.5529	0.5529		0.5087	0.5087	0.0000	1,338.0699	1,338.0699	0.4234		1,348.6537

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1316	3.9799	0.9343	9.3100e-003	0.2303	0.0262	0.2565	0.0663	0.0250	0.0913		981.0781	981.0781	0.0737		982.9214
Worker	0.4097	0.2754	2.7622	6.7700e-003	0.7147	4.9600e-003	0.7197	0.1896	4.5700e-003	0.1941		674.1174	674.1174	0.0227		674.6851
Total	0.5414	4.2554	3.6965	0.0161	0.9450	0.0311	0.9761	0.2559	0.0296	0.2855		1,655.1955	1,655.1955	0.0964		1,657.6065

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515		1,308.6259	1,308.6259	0.4232		1,319.2068
Total	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515		1,308.6259	1,308.6259	0.4232		1,319.2068

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1117	3.6311	0.8264	9.2400e-003	0.2303	0.0176	0.2480	0.0663	0.0169	0.0832		974.1268	974.1268	0.0705		975.8892
Worker	0.3776	0.2444	2.4862	6.5600e-003	0.7147	4.8300e-003	0.7195	0.1896	4.4500e-003	0.1940		653.1118	653.1118	0.0200		653.6121
Total	0.4893	3.8755	3.3126	0.0158	0.9450	0.0225	0.9675	0.2559	0.0213	0.2772		1,627.2386	1,627.2386	0.0905		1,629.5012

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.4 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515	0.0000	1,308.6259	1,308.6259	0.4232		1,319.2068
Total	1.1382	10.7907	8.4795	0.0135		0.4908	0.4908		0.4515	0.4515	0.0000	1,308.6259	1,308.6259	0.4232		1,319.2068

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1117	3.6311	0.8264	9.2400e-003	0.2303	0.0176	0.2480	0.0663	0.0169	0.0832		974.1268	974.1268	0.0705		975.8892
Worker	0.3776	0.2444	2.4862	6.5600e-003	0.7147	4.8300e-003	0.7195	0.1896	4.4500e-003	0.1940		653.1118	653.1118	0.0200		653.6121
Total	0.4893	3.8755	3.3126	0.0158	0.9450	0.0225	0.9675	0.2559	0.0213	0.2772		1,627.2386	1,627.2386	0.0905		1,629.5012

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.5 Utility Trenching (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672		3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672		3,404.8033	3,404.8033	1.1012		3,432.3329

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0434	0.0281	0.2858	7.5000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		75.0703	75.0703	2.3000e-003		75.1278
Total	0.0500	0.2417	0.3344	1.2900e-003	0.0957	1.6000e-003	0.0973	0.0257	1.5000e-003	0.0272		132.3719	132.3719	6.4500e-003		132.5331

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.5 Utility Trenching (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0434	0.0281	0.2858	7.5000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		75.0703	75.0703	2.3000e-003		75.1278
Total	0.0500	0.2417	0.3344	1.2900e-003	0.0957	1.6000e-003	0.0973	0.0257	1.5000e-003	0.0272		132.3719	132.3719	6.4500e-003		132.5331

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.6 Architectural Coating (School) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.9904
Total	25.0476	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479		375.2641	375.2641	0.0291		375.9904

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.6 Architectural Coating (School) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.7247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.9904
Total	25.0476	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479	0.0000	375.2641	375.2641	0.0291		375.9904

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.7 Fine Grading (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672		3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352	2.6513	1.2687	3.9200	0.2863	1.1672	1.4535		3,404.8033	3,404.8033	1.1012		3,432.3329

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0434	0.0281	0.2858	7.5000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		75.0703	75.0703	2.3000e-003		75.1278
Total	0.0500	0.2417	0.3344	1.2900e-003	0.0957	1.6000e-003	0.0973	0.0257	1.5000e-003	0.0272		132.3719	132.3719	6.4500e-003		132.5331

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.7 Fine Grading (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1334	0.0000	1.1334	0.1224	0.0000	0.1224			0.0000			0.0000
Off-Road	2.5731	28.8695	19.2211	0.0352		1.2687	1.2687		1.1672	1.1672	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329
Total	2.5731	28.8695	19.2211	0.0352	1.1334	1.2687	2.4022	0.1224	1.1672	1.2896	0.0000	3,404.8033	3,404.8033	1.1012		3,432.3329

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0434	0.0281	0.2858	7.5000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		75.0703	75.0703	2.3000e-003		75.1278
Total	0.0500	0.2417	0.3344	1.2900e-003	0.0957	1.6000e-003	0.0973	0.0257	1.5000e-003	0.0272		132.3719	132.3719	6.4500e-003		132.5331

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.8 Asphalt Paving (School) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5837	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0587	0.2473	0.3915	1.4400e-003	0.1121	1.7100e-003	0.1138	0.0301	1.6000e-003	0.0317		147.3860	147.3860	6.9100e-003		147.5586

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.8 Asphalt Paving (School) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	0.5764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5837	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0587	0.2473	0.3915	1.4400e-003	0.1121	1.7100e-003	0.1138	0.0301	1.6000e-003	0.0317		147.3860	147.3860	6.9100e-003		147.5586

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.9 Foundation Road (Aggregate Base/Base) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.5148	26.4350	19.5808	0.0312		1.4085	1.4085		1.2959	1.2959		3,023.1128	3,023.1128	0.9777		3,047.5562
Total	2.5148	26.4350	19.5808	0.0312	1.5908	1.4085	2.9993	0.1718	1.2959	1.4676		3,023.1128	3,023.1128	0.9777		3,047.5562

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0434	0.0281	0.2858	7.5000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		75.0703	75.0703	2.3000e-003		75.1278
Total	0.0500	0.2417	0.3344	1.2900e-003	0.0957	1.6000e-003	0.0973	0.0257	1.5000e-003	0.0272		132.3719	132.3719	6.4500e-003		132.5331

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.9 Foundation Road (Aggregate Base/Base) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6801	0.0000	0.6801	0.0734	0.0000	0.0734			0.0000			0.0000
Off-Road	2.5148	26.4350	19.5808	0.0312		1.4085	1.4085		1.2959	1.2959	0.0000	3,023.1128	3,023.1128	0.9777		3,047.5561
Total	2.5148	26.4350	19.5808	0.0312	0.6801	1.4085	2.0886	0.0734	1.2959	1.3693	0.0000	3,023.1128	3,023.1128	0.9777		3,047.5561

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0434	0.0281	0.2858	7.5000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		75.0703	75.0703	2.3000e-003		75.1278
Total	0.0500	0.2417	0.3344	1.2900e-003	0.0957	1.6000e-003	0.0973	0.0257	1.5000e-003	0.0272		132.3719	132.3719	6.4500e-003		132.5331

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.10 Asphalt Paving Road (Topcoat) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.8893	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088		1,185.4803	1,185.4803	0.3834		1,195.0655

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0587	0.2473	0.3915	1.4400e-003	0.1121	1.7100e-003	0.1138	0.0301	1.6000e-003	0.0317		147.3860	147.3860	6.9100e-003		147.5586

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.10 Asphalt Paving Road (Topcoat) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0073	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655
Paving	2.8820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.8893	9.8690	8.9465	0.0122		0.6618	0.6618		0.6088	0.6088	0.0000	1,185.4803	1,185.4803	0.3834		1,195.0655

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.5700e-003	0.2136	0.0486	5.4000e-004	0.0136	1.0400e-003	0.0146	3.9000e-003	9.9000e-004	4.8900e-003		57.3016	57.3016	4.1500e-003		57.4053
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0587	0.2473	0.3915	1.4400e-003	0.1121	1.7100e-003	0.1138	0.0301	1.6000e-003	0.0317		147.3860	147.3860	6.9100e-003		147.5586

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.11 Finishing/Landscaping (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578		190.9601	190.9601	0.0618		192.5041
Total	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578		190.9601	190.9601	0.0618		192.5041

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

3.11 Finishing/Landscaping (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578	0.0000	190.9601	190.9601	0.0618		192.5041
Total	0.1798	1.3834	1.4629	1.9700e-003		0.0628	0.0628		0.0578	0.0578	0.0000	190.9601	190.9601	0.0618		192.5041

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534
Total	0.0521	0.0337	0.3429	9.0000e-004	0.0986	6.7000e-004	0.0992	0.0262	6.1000e-004	0.0268		90.0844	90.0844	2.7600e-003		90.1534

4.0 Operational Detail - Mobile

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3338	1.5132	13.8517	0.0354	3.9274	0.0267	3.9542	1.0431	0.0247	1.0678		3,527.4999	3,527.4999	0.1296		3,530.7394
Unmitigated	1.3338	1.5132	13.8517	0.0354	3.9274	0.0267	3.9542	1.0431	0.0247	1.0678		3,527.4999	3,527.4999	0.1296		3,530.7394

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	850.86	0.00	0.00	1,340,075	1,340,075
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	850.86	0.00	0.00	1,340,075	1,340,075

4.3 Trip Type Information

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.691909	0.048109	0.226869	0.020096	0.001720	0.000510	0.001633	0.000000	0.000000	0.000000	0.007749	0.001407	0.000000
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199
NaturalGas Unmitigated	9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	913.68	9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		9.8500e-003	0.0896	0.0752	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003		107.4918	107.4918	2.0600e-003	1.9700e-003	108.1305

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.695586	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003		81.8336	81.8336	1.5700e-003	1.5000e-003	82.3199

6.0 Area Detail

6.1 Mitigation Measures Area

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Unmitigated	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-003	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Total	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-003	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484
Total	0.9444	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0454	0.0454	1.2000e-004		0.0484

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Winter

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

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

Equipment Type	Number
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11.0 Vegetation

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

**Desert Trails Prep Academy Construction Run
San Bernardino-Mojave Desert County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	38.07	1000sqft	0.87	38,070.00	0
Other Asphalt Surfaces	79.78	1000sqft	1.83	79,776.00	0
Other Non-Asphalt Surfaces	73.41	1000sqft	1.69	73,409.00	0
Parking Lot	16.15	1000sqft	0.37	16,152.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	504.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

Project Characteristics - updated SCE Carbon Intensity Factors

Land Use -

Construction Phase - based on applicant schedule

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see asusmptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file

Off-road Equipment - see assumptions file for equipment mix provided by applicant

Off-road Equipment - see assumptions file

Trips and VMT - 2 trps per worker per day, 2 VT per water truck

Grading -

Architectural Coating - non-paintable area removed from parking area

Vehicle Trips - calculated based on 851 new trips from 460 additional students divided by bsf

Area Coating - nonpaintable area removed from parking sqft

Energy Use -

Water And Wastewater - based on PlaceWorks utilities study (56.5 g/1000 sqft per day and 145.3 g/1,000 sqft per day) divided by total bsf excluding trash enclosure

Solid Waste - based on PlaceWorks utilities study (0.007lb/sqft/day) divided by total bsf minus trash enclosure

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Fleet Mix - see assumptions file for fleet mix calculations

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	10,160.00	5,756.00

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tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_Parking	10160	5756
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	10.00
tblConstructionPhase	NumDays	230.00	106.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	NumDays	8.00	13.00
tblConstructionPhase	NumDays	8.00	11.00
tblConstructionPhase	NumDays	18.00	10.00
tblConstructionPhase	NumDays	18.00	2.00
tblConstructionPhase	NumDays	5.00	22.00
tblFleetMix	HHD	0.06	0.00
tblFleetMix	LDA	0.55	0.69
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.18	0.23
tblFleetMix	LHD1	0.02	1.7200e-003
tblFleetMix	LHD2	5.4600e-003	5.1000e-004
tblFleetMix	MCY	6.1170e-003	7.7490e-003
tblFleetMix	MDV	0.12	0.02
tblFleetMix	MH	1.0820e-003	0.00
tblFleetMix	MHD	0.02	1.6330e-003
tblFleetMix	OBUS	1.3370e-003	0.00

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tblFleetMix	SBUS	8.1700e-004	1.4070e-003
tblFleetMix	UBUS	1.6570e-003	0.00
tblLandUse	LandUseSquareFeet	79,780.00	79,776.00
tblLandUse	LandUseSquareFeet	73,410.00	73,409.00
tblLandUse	LandUseSquareFeet	16,150.00	16,152.00
tblOffRoadEquipment	HorsePower	231.00	430.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	130.00	106.00
tblOffRoadEquipment	HorsePower	130.00	106.00
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tblOffRoadEquipment	HorsePower	80.00	99.00
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tblOffRoadEquipment	HorsePower	247.00	165.00
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tblOffRoadEquipment	HorsePower	97.00	80.00
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tblOffRoadEquipment	HorsePower	97.00	130.00
tblOffRoadEquipment	HorsePower	63.00	150.00
tblOffRoadEquipment	HorsePower	158.00	20.00
tblOffRoadEquipment	HorsePower	187.00	150.00

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tblOffRoadEquipment	HorsePower	187.00	150.00
tblOffRoadEquipment	HorsePower	130.00	106.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00

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tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblSolidWaste	SolidWasteGenerationRate	49.49	48.35
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	17.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblVehicleTrips	WD_TR	15.43	22.35
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	1,103,912.64	780,561.63
tblWater	OutdoorWaterUseRate	2,838,632.50	2,007,355.82
tblWater	SepticTankPercent	10.33	0.00

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1057	1.1256	0.7590	1.3500e-003	0.2031	0.0510	0.2541	0.0825	0.0470	0.1294	0.0000	121.7985	121.7985	0.0334	0.0000	122.6332
2020	0.2765	1.4751	1.1121	2.3400e-003	0.0694	0.0618	0.1312	0.0146	0.0570	0.0715	0.0000	209.3629	209.3629	0.0487	0.0000	210.5798
Maximum	0.2765	1.4751	1.1121	2.3400e-003	0.2031	0.0618	0.2541	0.0825	0.0570	0.1294	0.0000	209.3629	209.3629	0.0487	0.0000	210.5798

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1057	1.1256	0.7590	1.3500e-003	0.0938	0.0510	0.1449	0.0372	0.0470	0.0841	0.0000	121.7983	121.7983	0.0334	0.0000	122.6331
2020	0.2765	1.4751	1.1121	2.3400e-003	0.0545	0.0618	0.1163	0.0130	0.0570	0.0699	0.0000	209.3627	209.3627	0.0487	0.0000	210.5796
Maximum	0.2765	1.4751	1.1121	2.3400e-003	0.0938	0.0618	0.1449	0.0372	0.0570	0.0841	0.0000	209.3627	209.3627	0.0487	0.0000	210.5796

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	45.56	0.00	32.21	48.36	0.00	23.35	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-31-2019	1-30-2020	1.3797	1.3797
2	1-31-2020	4-29-2020	1.2851	1.2851
3	4-30-2020	7-30-2020	0.2849	0.2849
		Highest	1.3797	1.3797

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1722	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003
Energy	1.8000e-003	0.0164	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	82.6788	82.6788	4.0700e-003	1.1000e-003	83.1078
Mobile	0.1684	0.2046	1.8796	4.7000e-003	0.5009	3.4700e-003	0.5043	0.1332	3.2000e-003	0.1364	0.0000	424.3672	424.3672	0.0156	0.0000	424.7571
Waste						0.0000	0.0000		0.0000	0.0000	9.8146	0.0000	9.8146	0.5800	0.0000	24.3153
Water						0.0000	0.0000		0.0000	0.0000	0.2762	7.4284	7.7046	1.3800e-003	6.9000e-004	7.9443
Total	0.3423	0.2210	1.8953	4.8000e-003	0.5009	4.7200e-003	0.5056	0.1332	4.4500e-003	0.1377	10.0908	514.4782	524.5689	0.6011	1.7900e-003	540.1285

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1722	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003
Energy	1.3700e-003	0.0125	0.0105	7.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	71.1660	71.1660	3.5700e-003	9.3000e-004	71.5336
Mobile	0.1684	0.2046	1.8796	4.7000e-003	0.5009	3.4700e-003	0.5043	0.1332	3.2000e-003	0.1364	0.0000	424.3672	424.3672	0.0156	0.0000	424.7571
Waste						0.0000	0.0000		0.0000	0.0000	9.8146	0.0000	9.8146	0.5800	0.0000	24.3153
Water						0.0000	0.0000		0.0000	0.0000	0.2762	7.4284	7.7046	1.3800e-003	6.9000e-004	7.9443
Total	0.3419	0.2171	1.8920	4.7700e-003	0.5009	4.4300e-003	0.5053	0.1332	4.1600e-003	0.1374	10.0908	502.9654	513.0561	0.6006	1.6200e-003	528.5543

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.13	1.76	0.17	0.63	0.00	6.14	0.06	0.00	6.52	0.21	0.00	2.24	2.19	0.08	9.50	2.14

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation - School + Road	Site Preparation	10/31/2019	11/29/2019	5	22	
2	Rough Grading - (School + Road)	Grading	10/31/2019	11/29/2019	5	22	
3	Building Construction	Building Construction	12/1/2019	4/27/2020	5	106	
4	Utility Trenching (School + Road)	Trenching	2/25/2020	4/6/2020	5	30	
5	Architectural Coating (School)	Architectural Coating	4/14/2020	4/27/2020	5	10	
6	Fine Grading (School + Road)	Grading	4/17/2020	5/5/2020	5	13	
7	Asphalt Paving (School)	Paving	4/27/2020	5/8/2020	5	10	
8	Foundation Road (Aggregate Base/Base)	Grading	5/6/2020	5/20/2020	5	11	
9	Asphalt Paving Road (Topcoat)	Paving	5/21/2020	5/22/2020	5	2	
10	Finishing/Landscaping (School + Road)	Trenching	5/28/2020	6/17/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.89

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 57,105; Non-Residential Outdoor: 19,035; Striped Parking Area: 5,756 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation - School + Road	Graders	1	8.00	150	0.41
Site Preparation - School + Road	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation - School + Road	Rubber Tired Dozers	1	8.00	165	0.40
Site Preparation - School + Road	Scrapers	2	8.00	330	0.48
Site Preparation - School + Road	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation - School + Road	Tractors/Loaders/Backhoes	1	8.00	80	0.37

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Site Preparation - School + Road	Tractors/Loaders/Backhoes	1	8.00	130	0.37
Rough Grading - (School + Road)	Excavators	0	8.00	158	0.38
Rough Grading - (School + Road)	Graders	0	8.00	187	0.41
Rough Grading - (School + Road)	Graders	1	8.00	150	0.41
Rough Grading - (School + Road)	Rubber Tired Dozers	0	8.00	247	0.40
Rough Grading - (School + Road)	Rubber Tired Dozers	1	8.00	165	0.40
Rough Grading - (School + Road)	Scrapers	2	8.00	330	0.48
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Rough Grading - (School + Road)	Tractors/Loaders/Backhoes	1	8.00	130	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Cranes	1	8.00	430	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	40	0.37
Building Construction	Welders	0	8.00	46	0.45
Utility Trenching (School + Road)	Graders	1	8.00	150	0.41
Utility Trenching (School + Road)	Scrapers	2	8.00	330	0.48
Utility Trenching (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Architectural Coating (School)	Air Compressors	1	8.00	78	0.48
Fine Grading (School + Road)	Excavators	0	8.00	158	0.38
Fine Grading (School + Road)	Graders	0	8.00	187	0.41
Fine Grading (School + Road)	Graders	1	8.00	150	0.41
Fine Grading (School + Road)	Rubber Tired Dozers	0	8.00	247	0.40
Fine Grading (School + Road)	Scrapers	2	8.00	330	0.48
Fine Grading (School + Road)	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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Fine Grading (School + Road)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Asphalt Paving (School)	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving (School)	Pavers	0	8.00	130	0.42
Asphalt Paving (School)	Pavers	1	8.00	106	0.42
Asphalt Paving (School)	Paving Equipment	0	6.00	132	0.36
Asphalt Paving (School)	Rollers	0	6.00	80	0.38
Asphalt Paving (School)	Rollers	1	8.00	99	0.38
Asphalt Paving (School)	Rollers	1	8.00	80	0.38
Asphalt Paving (School)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Paving (School)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Foundation Road (Aggregate Base/Base)	Excavators	0	8.00	158	0.38
Foundation Road (Aggregate Base/Base)	Graders	0	8.00	187	0.41
Foundation Road (Aggregate Base/Base)	Graders	1	8.00	150	0.41
Foundation Road (Aggregate Base/Base)	Pavers	1	8.00	106	0.42
Foundation Road (Aggregate Base/Base)	Rollers	1	8.00	80	0.38
Foundation Road (Aggregate Base/Base)	Rollers	1	8.00	99	0.38
Foundation Road (Aggregate Base/Base)	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Road (Aggregate Base/Base)	Scrapers	1	8.00	330	0.48
Foundation Road (Aggregate Base/Base)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Foundation Road (Aggregate Base/Base)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Asphalt Paving Road (Topcoat)	Cement and Mortar Mixers	0	6.00	9	0.56
Asphalt Paving Road (Topcoat)	Pavers	0	8.00	130	0.42
Asphalt Paving Road (Topcoat)	Pavers	1	8.00	106	0.42
Asphalt Paving Road (Topcoat)	Paving Equipment	0	6.00	132	0.36
Asphalt Paving Road (Topcoat)	Rollers	0	6.00	80	0.38

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Asphalt Paving Road (Topcoat)	Rollers	1	8.00	80	0.38
Asphalt Paving Road (Topcoat)	Rollers	1	8.00	99	0.38
Asphalt Paving Road (Topcoat)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Asphalt Paving Road (Topcoat)	Tractors/Loaders/Backhoes	1	8.00	80	0.37
Finishing/Landscaping (School + Road)	Aerial Lifts	1	8.00	150	0.31
Finishing/Landscaping (School + Road)	Excavators	1	8.00	20	0.38
Finishing/Landscaping (School + Road)	Skid Steer Loaders	1	8.00	35	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation - (School + Road)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Rough Grading - (School + Road)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	87.00	34.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Trenching (School + Road)	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating (School)	1	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Fine Grading (School + Road)	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving (School)	4	12.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Road (Aggregate Base/Base)	6	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving Road (Topcoat)	4	12.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finishing/Landscaping (School + Road)	3	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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3.2 Site Preparation - School + Road - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0954	0.0000	0.0954	0.0396	0.0000	0.0396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0427	0.4707	0.3037	4.9000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	44.4029	44.4029	0.0141	0.0000	44.7542
Total	0.0427	0.4707	0.3037	4.9000e-004	0.0954	0.0223	0.1177	0.0396	0.0205	0.0601	0.0000	44.4029	44.4029	0.0141	0.0000	44.7542

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.6300e-003	5.7000e-004	1.0000e-005	1.5000e-004	2.0000e-005	1.6000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5887	0.5887	4.0000e-005	0.0000	0.5898
Worker	4.7000e-004	3.7000e-004	3.6600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7901	0.7901	3.0000e-005	0.0000	0.7908
Total	5.5000e-004	3.0000e-003	4.2300e-003	2.0000e-005	1.0400e-003	3.0000e-005	1.0500e-003	2.8000e-004	3.0000e-005	3.0000e-004	0.0000	1.3788	1.3788	7.0000e-005	0.0000	1.3805

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3.2 Site Preparation - School + Road - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0408	0.0000	0.0408	0.0169	0.0000	0.0169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0427	0.4707	0.3037	4.9000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	44.4029	44.4029	0.0141	0.0000	44.7541
Total	0.0427	0.4707	0.3037	4.9000e-004	0.0408	0.0223	0.0631	0.0169	0.0205	0.0374	0.0000	44.4029	44.4029	0.0141	0.0000	44.7541

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.6300e-003	5.7000e-004	1.0000e-005	1.5000e-004	2.0000e-005	1.6000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5887	0.5887	4.0000e-005	0.0000	0.5898
Worker	4.7000e-004	3.7000e-004	3.6600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7901	0.7901	3.0000e-005	0.0000	0.7908
Total	5.5000e-004	3.0000e-003	4.2300e-003	2.0000e-005	1.0400e-003	3.0000e-005	1.0500e-003	2.8000e-004	3.0000e-005	3.0000e-004	0.0000	1.3788	1.3788	7.0000e-005	0.0000	1.3805

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3.3 Rough Grading - (School + Road) - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0954	0.0000	0.0954	0.0396	0.0000	0.0396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0427	0.4707	0.3037	4.9000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	44.4029	44.4029	0.0141	0.0000	44.7542
Total	0.0427	0.4707	0.3037	4.9000e-004	0.0954	0.0223	0.1177	0.0396	0.0205	0.0601	0.0000	44.4029	44.4029	0.0141	0.0000	44.7542

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.6300e-003	5.7000e-004	1.0000e-005	1.5000e-004	2.0000e-005	1.6000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5887	0.5887	4.0000e-005	0.0000	0.5898
Worker	4.7000e-004	3.7000e-004	3.6600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7901	0.7901	3.0000e-005	0.0000	0.7908
Total	5.5000e-004	3.0000e-003	4.2300e-003	2.0000e-005	1.0400e-003	3.0000e-005	1.0500e-003	2.8000e-004	3.0000e-005	3.0000e-004	0.0000	1.3788	1.3788	7.0000e-005	0.0000	1.3805

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3.3 Rough Grading - (School + Road) - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0408	0.0000	0.0408	0.0169	0.0000	0.0169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0427	0.4707	0.3037	4.9000e-004		0.0223	0.0223		0.0205	0.0205	0.0000	44.4029	44.4029	0.0141	0.0000	44.7541
Total	0.0427	0.4707	0.3037	4.9000e-004	0.0408	0.0223	0.0631	0.0169	0.0205	0.0374	0.0000	44.4029	44.4029	0.0141	0.0000	44.7541

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.6300e-003	5.7000e-004	1.0000e-005	1.5000e-004	2.0000e-005	1.6000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.5887	0.5887	4.0000e-005	0.0000	0.5898
Worker	4.7000e-004	3.7000e-004	3.6600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7901	0.7901	3.0000e-005	0.0000	0.7908
Total	5.5000e-004	3.0000e-003	4.2300e-003	2.0000e-005	1.0400e-003	3.0000e-005	1.0500e-003	2.8000e-004	3.0000e-005	3.0000e-004	0.0000	1.3788	1.3788	7.0000e-005	0.0000	1.3805

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3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0137	0.1304	0.1017	1.5000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	13.3526	13.3526	4.2200e-003	0.0000	13.4583
Total	0.0137	0.1304	0.1017	1.5000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	13.3526	13.3526	4.2200e-003	0.0000	13.4583

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4100e-003	0.0447	9.6700e-003	1.0000e-004	2.4900e-003	2.9000e-004	2.7800e-003	7.2000e-004	2.7000e-004	9.9000e-004	0.0000	10.0086	10.0086	7.0000e-004	0.0000	10.0261
Worker	4.1000e-003	3.1900e-003	0.0318	8.0000e-005	7.7100e-003	5.0000e-005	7.7700e-003	2.0500e-003	5.0000e-005	2.1000e-003	0.0000	6.8737	6.8737	2.3000e-004	0.0000	6.8795
Total	5.5100e-003	0.0478	0.0415	1.8000e-004	0.0102	3.4000e-004	0.0106	2.7700e-003	3.2000e-004	3.0900e-003	0.0000	16.8823	16.8823	9.3000e-004	0.0000	16.9056

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3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0137	0.1304	0.1017	1.5000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	13.3526	13.3526	4.2200e-003	0.0000	13.4582
Total	0.0137	0.1304	0.1017	1.5000e-004		6.0800e-003	6.0800e-003		5.6000e-003	5.6000e-003	0.0000	13.3526	13.3526	4.2200e-003	0.0000	13.4582

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4100e-003	0.0447	9.6700e-003	1.0000e-004	2.4900e-003	2.9000e-004	2.7800e-003	7.2000e-004	2.7000e-004	9.9000e-004	0.0000	10.0086	10.0086	7.0000e-004	0.0000	10.0261
Worker	4.1000e-003	3.1900e-003	0.0318	8.0000e-005	7.7100e-003	5.0000e-005	7.7700e-003	2.0500e-003	5.0000e-005	2.1000e-003	0.0000	6.8737	6.8737	2.3000e-004	0.0000	6.8795
Total	5.5100e-003	0.0478	0.0415	1.8000e-004	0.0102	3.4000e-004	0.0106	2.7700e-003	3.2000e-004	3.0900e-003	0.0000	16.8823	16.8823	9.3000e-004	0.0000	16.9056

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3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0478	0.4532	0.3561	5.7000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	49.8610	49.8610	0.0161	0.0000	50.2641
Total	0.0478	0.4532	0.3561	5.7000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	49.8610	49.8610	0.0161	0.0000	50.2641

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5500e-003	0.1555	0.0326	4.0000e-004	9.5200e-003	7.4000e-004	0.0103	2.7500e-003	7.0000e-004	3.4500e-003	0.0000	37.9501	37.9501	2.5500e-003	0.0000	38.0137
Worker	0.0144	0.0108	0.1094	2.8000e-004	0.0294	2.0000e-004	0.0297	7.8200e-003	1.9000e-004	8.0100e-003	0.0000	25.4273	25.4273	7.8000e-004	0.0000	25.4469
Total	0.0190	0.1663	0.1420	6.8000e-004	0.0390	9.4000e-004	0.0399	0.0106	8.9000e-004	0.0115	0.0000	63.3774	63.3774	3.3300e-003	0.0000	63.4606

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3.4 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0478	0.4532	0.3561	5.7000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	49.8609	49.8609	0.0161	0.0000	50.2640
Total	0.0478	0.4532	0.3561	5.7000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	49.8609	49.8609	0.0161	0.0000	50.2640

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5500e-003	0.1555	0.0326	4.0000e-004	9.5200e-003	7.4000e-004	0.0103	2.7500e-003	7.0000e-004	3.4500e-003	0.0000	37.9501	37.9501	2.5500e-003	0.0000	38.0137
Worker	0.0144	0.0108	0.1094	2.8000e-004	0.0294	2.0000e-004	0.0297	7.8200e-003	1.9000e-004	8.0100e-003	0.0000	25.4273	25.4273	7.8000e-004	0.0000	25.4469
Total	0.0190	0.1663	0.1420	6.8000e-004	0.0390	9.4000e-004	0.0399	0.0106	8.9000e-004	0.0115	0.0000	63.3774	63.3774	3.3300e-003	0.0000	63.4606

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3.5 Utility Trenching (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0386	0.4330	0.2883	5.3000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	46.3318	46.3318	0.0150	0.0000	46.7064
Total	0.0386	0.4330	0.2883	5.3000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	46.3318	46.3318	0.0150	0.0000	46.7064

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	3.2700e-003	6.8000e-004	1.0000e-005	2.0000e-004	2.0000e-005	2.2000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7973	0.7973	5.0000e-005	0.0000	0.7986
Worker	5.9000e-004	4.4000e-004	4.4900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0438	1.0438	3.0000e-005	0.0000	1.0446
Total	6.9000e-004	3.7100e-003	5.1700e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	2.0000e-005	4.0000e-004	0.0000	1.8411	1.8411	8.0000e-005	0.0000	1.8432

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3.5 Utility Trenching (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0386	0.4330	0.2883	5.3000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	46.3317	46.3317	0.0150	0.0000	46.7063
Total	0.0386	0.4330	0.2883	5.3000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	46.3317	46.3317	0.0150	0.0000	46.7063

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	3.2700e-003	6.8000e-004	1.0000e-005	2.0000e-004	2.0000e-005	2.2000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.7973	0.7973	5.0000e-005	0.0000	0.7986
Worker	5.9000e-004	4.4000e-004	4.4900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0438	1.0438	3.0000e-005	0.0000	1.0446
Total	6.9000e-004	3.7100e-003	5.1700e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	2.0000e-005	4.0000e-004	0.0000	1.8411	1.8411	8.0000e-005	0.0000	1.8432

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

3.6 Architectural Coating (School) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6100e-003	0.0112	0.0122	2.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	1.7022	1.7022	1.3000e-004	0.0000	1.7055
Total	0.1252	0.0112	0.0122	2.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	1.7022	1.7022	1.3000e-004	0.0000	1.7055

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	1.8000e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4175	0.4175	1.0000e-005	0.0000	0.4179
Total	2.4000e-004	1.8000e-004	1.8000e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4175	0.4175	1.0000e-005	0.0000	0.4179

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

3.6 Architectural Coating (School) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6100e-003	0.0112	0.0122	2.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	1.7022	1.7022	1.3000e-004	0.0000	1.7055
Total	0.1252	0.0112	0.0122	2.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	1.7022	1.7022	1.3000e-004	0.0000	1.7055

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	1.8000e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4175	0.4175	1.0000e-005	0.0000	0.4179
Total	2.4000e-004	1.8000e-004	1.8000e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4175	0.4175	1.0000e-005	0.0000	0.4179

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

3.7 Fine Grading (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0172	0.0000	0.0172	1.8600e-003	0.0000	1.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1877	0.1249	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.0771	20.0771	6.4900e-003	0.0000	20.2394
Total	0.0167	0.1877	0.1249	2.3000e-004	0.0172	8.2500e-003	0.0255	1.8600e-003	7.5900e-003	9.4500e-003	0.0000	20.0771	20.0771	6.4900e-003	0.0000	20.2394

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.4200e-003	3.0000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3455	0.3455	2.0000e-005	0.0000	0.3461
Worker	2.6000e-004	1.9000e-004	1.9500e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4523	0.4523	1.0000e-005	0.0000	0.4527
Total	3.0000e-004	1.6100e-003	2.2500e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.2000e-004	1.7000e-004	1.0000e-005	1.7000e-004	0.0000	0.7978	0.7978	3.0000e-005	0.0000	0.7987

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

3.7 Fine Grading (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.3700e-003	0.0000	7.3700e-003	8.0000e-004	0.0000	8.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1877	0.1249	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.0771	20.0771	6.4900e-003	0.0000	20.2394
Total	0.0167	0.1877	0.1249	2.3000e-004	7.3700e-003	8.2500e-003	0.0156	8.0000e-004	7.5900e-003	8.3900e-003	0.0000	20.0771	20.0771	6.4900e-003	0.0000	20.2394

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.4200e-003	3.0000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3455	0.3455	2.0000e-005	0.0000	0.3461
Worker	2.6000e-004	1.9000e-004	1.9500e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4523	0.4523	1.0000e-005	0.0000	0.4527
Total	3.0000e-004	1.6100e-003	2.2500e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.2000e-004	1.7000e-004	1.0000e-005	1.7000e-004	0.0000	0.7978	0.7978	3.0000e-005	0.0000	0.7987

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

3.8 Asphalt Paving (School) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0400e-003	0.0493	0.0447	6.0000e-005		3.3100e-003	3.3100e-003		3.0400e-003	3.0400e-003	0.0000	5.3773	5.3773	1.7400e-003	0.0000	5.4207
Paving	2.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.9200e-003	0.0493	0.0447	6.0000e-005		3.3100e-003	3.3100e-003		3.0400e-003	3.0400e-003	0.0000	5.3773	5.3773	1.7400e-003	0.0000	5.4207

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0900e-003	2.3000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2658	0.2658	2.0000e-005	0.0000	0.2662
Worker	2.4000e-004	1.8000e-004	1.8000e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4175	0.4175	1.0000e-005	0.0000	0.4179
Total	2.7000e-004	1.2700e-003	2.0300e-003	0.0000	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.6833	0.6833	3.0000e-005	0.0000	0.6841

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3.8 Asphalt Paving (School) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0400e-003	0.0493	0.0447	6.0000e-005		3.3100e-003	3.3100e-003		3.0400e-003	3.0400e-003	0.0000	5.3772	5.3772	1.7400e-003	0.0000	5.4207
Paving	2.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.9200e-003	0.0493	0.0447	6.0000e-005		3.3100e-003	3.3100e-003		3.0400e-003	3.0400e-003	0.0000	5.3772	5.3772	1.7400e-003	0.0000	5.4207

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0900e-003	2.3000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2658	0.2658	2.0000e-005	0.0000	0.2662
Worker	2.4000e-004	1.8000e-004	1.8000e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4175	0.4175	1.0000e-005	0.0000	0.4179
Total	2.7000e-004	1.2700e-003	2.0300e-003	0.0000	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.6833	0.6833	3.0000e-005	0.0000	0.6841

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3.9 Foundation Road (Aggregate Base/Base) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.7500e-003	0.0000	8.7500e-003	9.4000e-004	0.0000	9.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1454	0.1077	1.7000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	15.0839	15.0839	4.8800e-003	0.0000	15.2058
Total	0.0138	0.1454	0.1077	1.7000e-004	8.7500e-003	7.7500e-003	0.0165	9.4000e-004	7.1300e-003	8.0700e-003	0.0000	15.0839	15.0839	4.8800e-003	0.0000	15.2058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.2000e-003	2.5000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2923	0.2923	2.0000e-005	0.0000	0.2928
Worker	2.2000e-004	1.6000e-004	1.6500e-003	0.0000	4.4000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3827	0.3827	1.0000e-005	0.0000	0.3830
Total	2.6000e-004	1.3600e-003	1.9000e-003	0.0000	5.1000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.6751	0.6751	3.0000e-005	0.0000	0.6759

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3.9 Foundation Road (Aggregate Base/Base) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7400e-003	0.0000	3.7400e-003	4.0000e-004	0.0000	4.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1454	0.1077	1.7000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	15.0839	15.0839	4.8800e-003	0.0000	15.2058
Total	0.0138	0.1454	0.1077	1.7000e-004	3.7400e-003	7.7500e-003	0.0115	4.0000e-004	7.1300e-003	7.5300e-003	0.0000	15.0839	15.0839	4.8800e-003	0.0000	15.2058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.2000e-003	2.5000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2923	0.2923	2.0000e-005	0.0000	0.2928
Worker	2.2000e-004	1.6000e-004	1.6500e-003	0.0000	4.4000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3827	0.3827	1.0000e-005	0.0000	0.3830
Total	2.6000e-004	1.3600e-003	1.9000e-003	0.0000	5.1000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.6751	0.6751	3.0000e-005	0.0000	0.6759

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3.10 Asphalt Paving Road (Topcoat) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0100e-003	9.8700e-003	8.9500e-003	1.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	1.0755	1.0755	3.5000e-004	0.0000	1.0842
Paving	2.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8900e-003	9.8700e-003	8.9500e-003	1.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	1.0755	1.0755	3.5000e-004	0.0000	1.0842

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.2000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0532	0.0532	0.0000	0.0000	0.0532
Worker	5.0000e-005	4.0000e-005	3.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0835	0.0835	0.0000	0.0000	0.0836
Total	6.0000e-005	2.6000e-004	4.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1367	0.1367	0.0000	0.0000	0.1368

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3.10 Asphalt Paving Road (Topcoat) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0100e-003	9.8700e-003	8.9500e-003	1.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	1.0755	1.0755	3.5000e-004	0.0000	1.0841
Paving	2.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.8900e-003	9.8700e-003	8.9500e-003	1.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	1.0755	1.0755	3.5000e-004	0.0000	1.0841

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.2000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0532	0.0532	0.0000	0.0000	0.0532
Worker	5.0000e-005	4.0000e-005	3.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0835	0.0835	0.0000	0.0000	0.0836
Total	6.0000e-005	2.6000e-004	4.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1367	0.1367	0.0000	0.0000	0.1368

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3.11 Finishing/Landscaping (School + Road) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3500e-003	0.0104	0.0110	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	1.2993	1.2993	4.2000e-004	0.0000	1.3098
Total	1.3500e-003	0.0104	0.0110	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	1.2993	1.2993	4.2000e-004	0.0000	1.3098

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.7000e-004	2.6900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6263	0.6263	2.0000e-005	0.0000	0.6268
Total	3.5000e-004	2.7000e-004	2.6900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6263	0.6263	2.0000e-005	0.0000	0.6268

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3.11 Finishing/Landscaping (School + Road) - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3500e-003	0.0104	0.0110	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	1.2993	1.2993	4.2000e-004	0.0000	1.3098
Total	1.3500e-003	0.0104	0.0110	1.0000e-005		4.7000e-004	4.7000e-004		4.3000e-004	4.3000e-004	0.0000	1.2993	1.2993	4.2000e-004	0.0000	1.3098

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.7000e-004	2.6900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6263	0.6263	2.0000e-005	0.0000	0.6268
Total	3.5000e-004	2.7000e-004	2.6900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6263	0.6263	2.0000e-005	0.0000	0.6268

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1684	0.2046	1.8796	4.7000e-003	0.5009	3.4700e-003	0.5043	0.1332	3.2000e-003	0.1364	0.0000	424.3672	424.3672	0.0156	0.0000	424.7571
Unmitigated	0.1684	0.2046	1.8796	4.7000e-003	0.5009	3.4700e-003	0.5043	0.1332	3.2000e-003	0.1364	0.0000	424.3672	424.3672	0.0156	0.0000	424.7571

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	850.86	0.00	0.00	1,340,075	1,340,075
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	850.86	0.00	0.00	1,340,075	1,340,075

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.691909	0.048109	0.226869	0.020096	0.001720	0.000510	0.001633	0.000000	0.000000	0.000000	0.007749	0.001407	0.000000
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	57.6176	57.6176	3.3100e-003	6.9000e-004	57.9046
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.8824	64.8824	3.7300e-003	7.7000e-004	65.2056
NaturalGas Mitigated	1.3700e-003	0.0125	0.0105	7.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	13.5485	13.5485	2.6000e-004	2.5000e-004	13.6290
NaturalGas Unmitigated	1.8000e-003	0.0164	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7965	17.7965	3.4000e-004	3.3000e-004	17.9022

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	333493	1.8000e-003	0.0164	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7965	17.7965	3.4000e-004	3.3000e-004	17.9022
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.8000e-003	0.0164	0.0137	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7965	17.7965	3.4000e-004	3.3000e-004	17.9022

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	253889	1.3700e-003	0.0125	0.0105	7.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	13.5485	13.5485	2.6000e-004	2.5000e-004	13.6290
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		1.3700e-003	0.0125	0.0105	7.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	13.5485	13.5485	2.6000e-004	2.5000e-004	13.6290

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	277911	63.5889	3.6600e-003	7.6000e-004	63.9056
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5653.2	1.2935	7.0000e-005	2.0000e-005	1.3000
Total		64.8824	3.7300e-003	7.8000e-004	65.2056

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	246161	56.3240	3.2400e-003	6.7000e-004	56.6046
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5653.2	1.2935	7.0000e-005	2.0000e-005	1.3000
Total		57.6176	3.3100e-003	6.9000e-004	57.9046

6.0 Area Detail

6.1 Mitigation Measures Area

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1722	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003
Unmitigated	0.1722	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1596					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003
Total	0.1722	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1596					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003
Total	0.1722	2.0000e-005	1.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7100e-003	3.7100e-003	1.0000e-005	0.0000	3.9500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.7046	1.3800e-003	6.9000e-004	7.9443
Unmitigated	7.7046	1.3800e-003	6.9000e-004	7.9443

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.780562 / 2.00736	7.7046	1.3800e-003	6.9000e-004	7.9443
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		7.7046	1.3800e-003	6.9000e-004	7.9443

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	0.780562 / 2.00736	7.7046	1.3800e-003	6.9000e-004	7.9443
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		7.7046	1.3800e-003	6.9000e-004	7.9443

8.0 Waste Detail

8.1 Mitigation Measures Waste

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.8146	0.5800	0.0000	24.3153
Unmitigated	9.8146	0.5800	0.0000	24.3153

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	48.35	9.8146	0.5800	0.0000	24.3153
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		9.8146	0.5800	0.0000	24.3153

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	48.35	9.8146	0.5800	0.0000	24.3153
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		9.8146	0.5800	0.0000	24.3153

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Desert Trails Prep Academy Construction Run - San Bernardino-Mojave Desert County, Annual

Equipment Type	Number
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11.0 Vegetation

Desert Trails Prep Academy Construction Run
San Bernardino-Mojave Desert County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating (School)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Paving (School)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Paving Road (Topcoat)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading (School + Road)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finishing/Landscaping (School + Road)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Foundation Road (Aggregate Base/Base)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rough Grading - (School + Road)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation - School + Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utility Trenching (School + Road)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Aerial Lifts	Diesel	No Change	0	1	No Change	0.00
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	0	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	0	No Change	0.00
Generator Sets	Diesel	No Change	0	0	No Change	0.00
Graders	Diesel	No Change	0	5	No Change	0.00
Pavers	Diesel	No Change	0	3	No Change	0.00
Paving Equipment	Diesel	No Change	0	0	No Change	0.00
Rollers	Diesel	No Change	0	6	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	2	No Change	0.00
Scrapers	Diesel	No Change	0	9	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	11	No Change	0.00
Welders	Diesel	No Change	0	0	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19514E-006	1.19514E-006	0.00000E+000	0.00000E+000	1.18560E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.08707E-005	2.08707E-005	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	0.00000E+000	0.00000E+000	5.17357E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.58835E-007	8.58835E-007	0.00000E+000	0.00000E+000	1.27802E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.59800E-006	2.59800E-006	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.90153E-007	8.90153E-007	0.00000E+000	0.00000E+000	8.83167E-007
Scrapers	0.00000E+000	9.77097E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16206E-006	1.16206E-006	0.00000E+000	0.00000E+000	1.15284E-006
Skid Steer Loaders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21930E-005	1.21930E-005	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19082E-006	1.19082E-006	0.00000E+000	0.00000E+000	1.18136E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00	
Yes	Replace Ground Cover of Area Disturbed	PM10 Reduction	5.00	PM2.5 Reduction	5.00	

Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating (School)	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating (School)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Paving (School)	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Paving (School)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Paving Road (Topcoat)	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Paving Road (Topcoat)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.05	0.01	0.05	0.01	0.00	0.00
Fine Grading (School + Road)	Fugitive Dust	0.02	0.00	0.01	0.00	0.57	0.57
Fine Grading (School + Road)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Finishing/Landscaping (School + Road)	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Finishing/Landscaping (School + Road)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Foundation Road (Aggregate Base/Base)	Fugitive Dust	0.01	0.00	0.00	0.00	0.57	0.57
Foundation Road (Aggregate Base/Base)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Rough Grading - (School + Road)	Fugitive Dust	0.10	0.04	0.04	0.02	0.57	0.57
Rough Grading - (School + Road)	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation - School + Road	Fugitive Dust	0.10	0.04	0.04	0.02	0.57	0.57
Site Preparation - School + Road	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Utility Trenching (School + Road)	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Utility Trenching (School + Road)	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.20	11.20	11.26	11.54	11.20
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	23.89	23.85	23.89	30.00	23.39	23.39	0.00	23.87	23.87	23.53	24.24	23.87
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.09	0.30		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	50.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	30.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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