MTS Clean Transit Advancement Campus Project

Air Quality Technical Report

May 2022 | 00750.00002.001
Revised August 2022

Prepared for:

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ACRONYMS AND ABBREVIATIONS

ADT	average daily trips
AQIA	Air Quality Impact Assessment
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CO	carbon monoxide
CTAC	Clean Transit Advancement Campus
DPM	diesel particulate matter
FTA	Federal Transit Authority
H_2S	hydrogen sulfide
HRA	health risk assessment
LOS	Level of Service
MEI	maximally exposed individual
MTS	Metropolitan Transit System
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NDP	Neighborhood Development Permit
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
Pb	lead
PCE	perchloroethylene
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
RAQS	Regional Air Quality Strategy
ROG	reactive organic gas

ACRONYMS AND ABBREVIATIONS (cont.)

SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas and Electric
sf	square foot/feet
SO_2	sulfur dioxide
TAC	toxic air contaminant
USEPA	U.S. Environmental Protection Agency
VMT	vehicle miles traveled
VOC	volatile organic compound
ZEB	zero emission bus

EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts during construction and operation of the proposed San Diego Metropolitan Transit System (MTS) Clean Transit Advancement Campus (CTAC) Project (Project), ~~located~~ near the intersection of Federal Boulevard and 47th Street in the City of San Diego. The proposed new bus division would entail the construction of a new bus maintenance facility building, charging facilities, bus wash facilities, equipment lift facilities, storage facilities, bus parking facilities, ~~an~~ administration and operations office buildings, employee parking, lighting improvements, security and camera improvements, stormwater improvements, utility relocations, and landscaping and irrigation improvements. The remainder of the site would be resurfaced with either asphalt or concrete to provide parking for approximately 250 buses, approximately 350 employee vehicles, and approximately 60 non-revenue vehicles. Utilities and driveways would be relocated and modified as needed and storm water improvements constructed. The Project is subject to state and federal environmental review requirements because it involves the use of federal funds from the Federal Transit Administration.

The Project would result in emissions of air pollutants during both construction and operation. Construction best management practices would be implemented as part of the Project, including measures to minimize fugitive dust emissions, such as watering twice per day during grading and stabilizing storage piles. The Project would comply with San Diego Air Pollution Control District (SDAPCD) Rule 55, which requires that no visible dust be emitted beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period and would incorporate measures to minimize the track-out/carry-out of visible roadway dust. Emissions of all criteria pollutants would be below the daily thresholds during construction, and short-term construction air quality emissions impacts would be less than significant. Similarly, emissions of criteria pollutants would be below the daily thresholds during operations, and long-term operational air quality emissions impacts would be less than significant.

Development of the Project would be consistent with SDAPCD's *2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County* and the *Regional Air Quality Strategy*, and would not result in cumulatively considerable emissions of nonattainment air pollutants that would exceed the screening level thresholds.

The Project would not result in an increase in traffic that could result in a carbon monoxide hot spot. Construction and operation of the Project also would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants. In addition, evaluation of potential odors from the Project indicated that associated impacts would be less than significant.

The Project involves the construction of a new bus maintenance facility, which is included as an exempt project type listed in Title 40, Code of Federal Regulations Section 93.126. Therefore, all air quality conformity requirements have been met and the Project would not conflict with implementation of the State Implementation Plan.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes potential air quality impacts associated with the proposed San Diego Metropolitan Transit System (MTS) Clean Transit Advancement Campus (CTAC) Project (Project) and includes an evaluation of existing conditions in the Project vicinity and assessment of potential impacts associated with Project construction and operations.

The Project is a federal undertaking because the Federal Transit Administration (FTA) will be providing financial assistance. The FTA serves as the federal lead agency. MTS serves as the lead agency under the California Environmental Quality Act (CEQA).

1.2 PROJECT LOCATION AND DESCRIPTION

~~The San Diego~~ MTS and the San Diego Association of Governments (SANDAG) propose~~s~~ to construct the CTAC, a new bus ~~division~~ maintenance and charging facility for electric buses, ~~located~~ near the intersection of Federal Boulevard and 47th Street in the City of San Diego (refer to Figure 1, *Regional Location* and Figure 2, *Aerial Photograph*). The Project site is ~~proposed to be~~ located north of Federal Boulevard and west of 47th Street and divided in two ~~areas~~portions that are separated by a driveway/access road to a FedEx distribution center. The smaller portion~~section~~ of the Project site, consisting of Assessor Parcel Number (APN) 541-611-2700, occurs on the eastern side (east of the FedEx driveway) and is proposed for employee parking and potentially an administration ~~/operation~~ building, and the larger portion, consisting of APNs 541-611-0400, 3100, 3400, and 3500, occurs on the western side (west of the FedEx driveway) and is proposed for bus parking/charging, a maintenance facility building~~bays~~, bus washes, and an ~~operations~~ administration building. Access to the Project is proposed to be located at up to four driveways along the Federal Boulevard Project frontage. A new traffic signal would be installed at the western-most site driveway.

The existing nine buildings on site would be demolished and a new bus division facility would be constructed. The existing buildings consist of a variety of one- to two-story structures, some of which are occupied by industrial uses. The proposed new bus division would entail the construction of a new bus maintenance facility building, charging facilities, bus wash facilities, equipment lift facilities, storage facilities, bus parking facilities, ~~an~~ administration and operations office buildings, employee parking, lighting improvements, security and camera improvements, stormwater improvements, utility relocations, and landscaping and irrigation improvements.

Two to four new buildings would be constructed to accommodate maintenance and service functions, administrative space, and potentially some auxiliary uses. A maintenance facility building would be constructed on the western portion of the site that would encompass approximately 155,000 square feet (sf) and would include maintenance support areas, 20 repair service bays, a body shop, a tire shop, bus wash and service areas, charging stations, storage areas, restrooms, and mechanical and electrical rooms. Administration and auxiliary use space would encompass a total of approximately 75,000 sf and would be housed in one to two buildings. The administration building(s) would include general administration areas, conference rooms and training spaces, storage, security office, changing room and locker area, restrooms, area for future day care services, custodial room, recreation area, lounges, break/lunch room, radio dispatch, clerk facilities, and mechanical and electrical rooms. Administration

buildings would be constructed on either or both the western and eastern portions of the site, depending on final design to accommodate up to 250 buses. Additionally, an employee parking lot or structure would be constructed on the eastern portion of the site. The new buildings would range between one to three levels, and up to three levels may be visible from Federal Boulevard due to site and area topography. The proposed facility would be designed to achieve a LEED certification and would also include rooftop solar panels.

~~Proposed new buildings would include an approximately 35,000-square-foot (sf) maintenance facility, approximately 75,000 sf administration and operation office building, and approximately 25,000 sf of storage areas. The maintenance facility would consist of approximately 20 bus maintenance service bays, 2 bus wash lanes, 4 fare and servicing lanes, and 16 equipment lift bays (which could be a combination of portables and in ground).~~ Charging facilities would include up to approximately ~~200~~ 250 zero emission bus (ZEB) electric chargers. The new facility would include a total of about 120 administrative offices. The number of employees at full buildout would include approximately 300 bus operators, 125 maintenance staff, and 150 administrative staff[1]. The facility would operate seven days a week, 24 hours a day. The number and type of employees per shift would include approximately 200 bus operators, 50 management/administrative staff, and 30 maintenance staff[2]. Approximately 500 daily electric ZEB trips would be dispatched from the new facility.

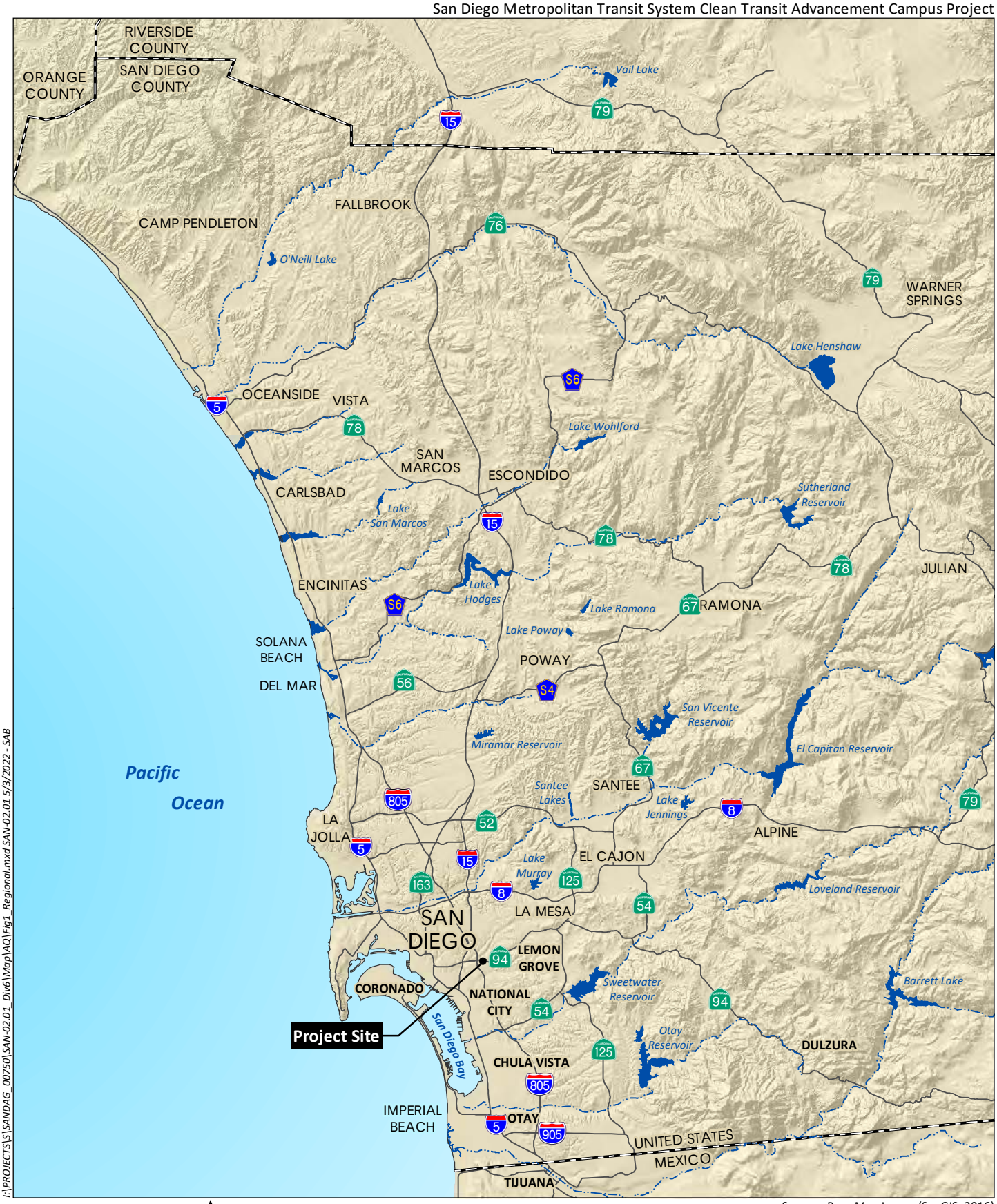
The new facility would also include asphalt or concrete surface and/or structured parking for approximately 250 buses, approximately 350 employee vehicles, and approximately 60 non-revenue vehicles (i.e., bus supervisor, relief, and maintenance vehicles). Some employee vehicles may be able to utilize bus parking areas during the day. ~~Buses would be able to park at night in employee areas and employee vehicles could utilize bus parking areas during the day.~~ Parking facilities would encompass a total of approximately 136,000 sf.

Retaining walls would be constructed in some locations along the bus parking/charging lot. Proposed fencing would consist of a combination of block wall and/or chain link and would vary from approximately 6 to 12 feet depending on whether it was near the frontage or near adjacent properties. Proposed exterior lighting would be installed along the perimeter of the facility to ensure security and would be shielded or directional to minimize spill into adjacent properties and open space.

Utilities within the project site would be relocated, as required, and stormwater improvements would be constructed. Driveways would also be relocated and modified as required. As noted above, one signalized driveway and up to three unsignalized driveways would be provided for access to the project site from Federal Boulevard. Driveways would be sited, designed and constructed pursuant to applicable regulations to allow for adequate circulation along Federal Boulevard. The Project would also include irrigation and landscaping to visually enhance the streetscape.

[1] It is anticipated that most employment opportunities at the proposed project would be filled by existing residents in the region, including but not limited to residents located near the new facility. While an economic or social change by itself is not considered a significant effect on the environment under CEQA (State CEQA Guidelines sections 15131 and 15382), MTS will comply with all employment and labor laws and regulations that apply to the staffing of its transit facilities. Potential physical changes associated with economic or social changes from the proposed project have been identified and analyzed in this document.

[2] The number of employees per shift represents full buildout operational conditions and is based on similar bus fleet and maintenance parameters at MTS' South Bay Maintenance Facility. It is likely that these numbers could be lower at project opening and would gradually increase to the buildout numbers.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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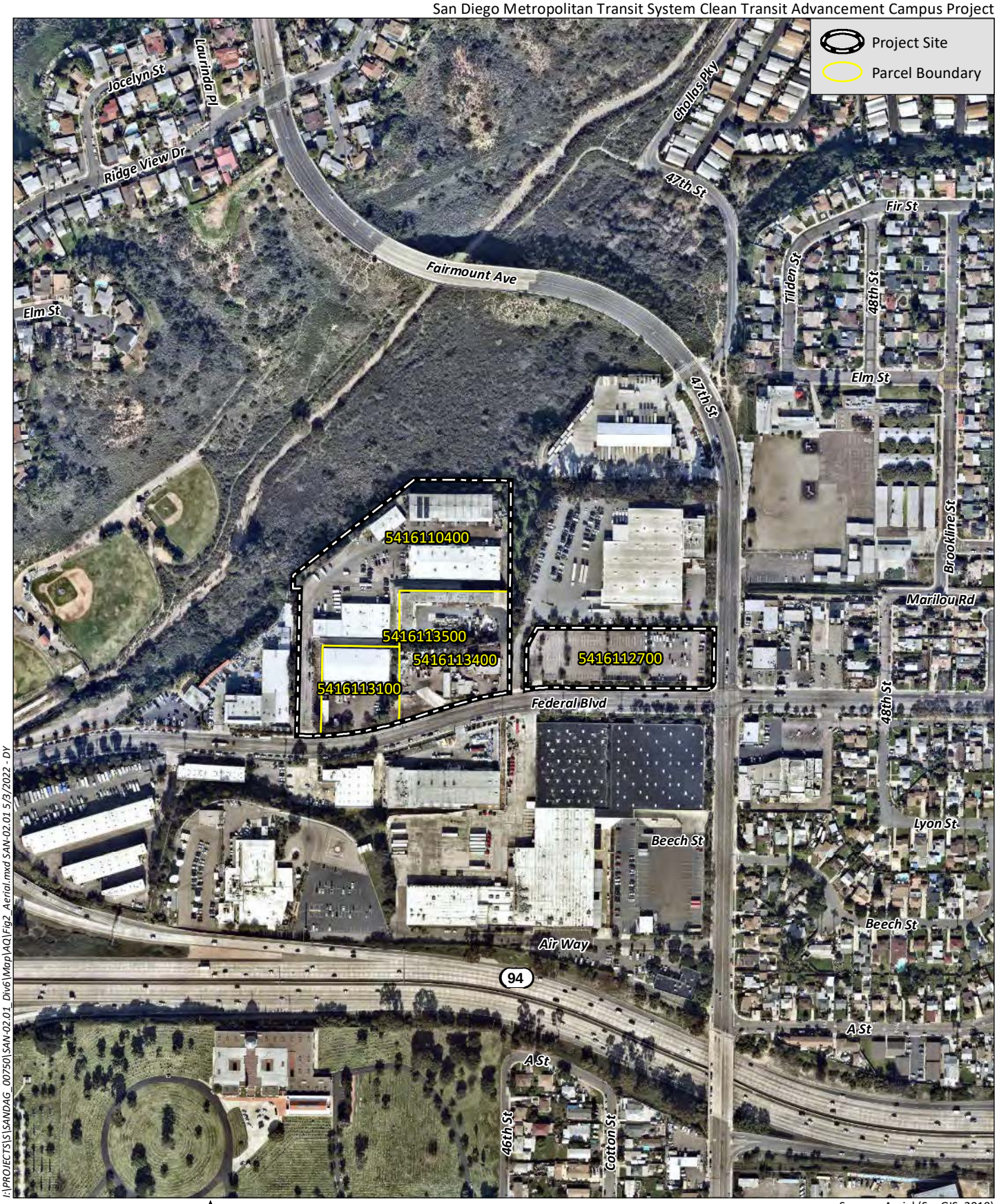
Regional Location

Figure 1



Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Aerial Photograph

Figure 2

An existing roadway easement adjacent to and west of the FedEx driveway, as well as various San Diego Gas & Electric (SDG&E) utility easements within the site, would be vacated. An existing open space easement occurs along the northern site boundary and the project would not encroach into this easement.

1.3 CONSTRUCTION BEST MANAGEMENT PRACTICES

The Project would incorporate best management practices (BMPs) during construction to reduce emissions of fugitive dust. San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control states that no dust and/or dirt shall leave the property line. SDAPCD Rule 55 requires the following:

1) **Airborne Dust Beyond the Property Line:** No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.

2) **Track-Out/Carry-Out:** Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:

    a) be minimized by the use of any of the following or equally effective track-out/carry-out and erosion control measures that apply to the Project or operation:

        i) track-out grates or gravel beds at each egress point;

        ii) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks;

        iii) using secured tarps or cargo covering, watering, or treating of transported material; and

    b) be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM_{10}-efficient (particulate matter less than 10 microns) street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

The Project would implement the BMP control measures listed below:

- A minimum of two applications of water during grading between dozer/scraper passes;
- Termination of grading if winds exceed 25 miles per hour (mph);
- Maintenance of a minimum soil moisture of 12 percent in all exposed surfaces;
- Stabilization of dirt storage piles by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds would be limited on unpaved roads to 15 mph.

2.0 REGULATORY SETTING

2.1 CRITERIA POLLUTANTS

2.1.1 Pollutants of Concern

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the public. In general, air pollutants include the following compounds:

- Ozone (O_3)
- Reactive organic gases (ROGs) or volatile organic compounds (VOCs)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

The following specific descriptions of health effects for each air pollutant associated with Project construction and operation are based on information available through U.S. Environmental Protection Agency (USEPA; 2021) and California Air Resources Board (CARB; 2022a).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and nitrogen oxides (NO_X), both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Reactive Organic Gases. ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a product of fuel combustion. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. PM_{10} refers to particulate matter (PM) with an aerodynamic diameter of 10 microns or less. $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges has been determined to have the

potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified a carcinogen by CARB.

Sulfur Dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district, lead is not an air pollutant of concern for the proposed Project.

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for the criteria pollutants, which are discussed above. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

Table 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3

Pollutant	Averaging Time	California Standards	Federal Standards Primary[1]	Federal Standards Secondary[2]
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	Same as Primary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	**No Federal Standards**
Sulfates	24 Hour	25 µg/m^3	**No Federal Standards**	**No Federal Standards**
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	**No Federal Standards**	**No Federal Standards**
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	**No Federal Standards**	**No Federal Standards**

Source: CARB 2016

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information of the data presented in this table can be found at the CARB website (www.arb.ca.gov).
O_3 = ozone; ppm: parts per million; µg/m^3 = micrograms per cubic meter; PM_{10} = large particulate matter;
AAM = Annual Arithmetic Mean; $PM_{2.5}$ = fine particulate matter; CO = carbon monoxide; mg/m^3 = milligrams per cubic meter;
NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; km = kilometer; – = No Standard.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are "nonattainment areas" for that pollutant. The San Diego Air Basin (SDAB) is currently classified as a nonattainment area under the NAAQS for ozone (8-hour) and under the CAAQS for ozone (8-hour and 1-hour), PM_{10}, and $PM_{2.5}$. The SDAB is an attainment area for the NAAQS and CAAQS for all other criteria pollutants (SDAPCD 2019).

CARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The local air district has the primary responsibility for the development and

implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for the County.

The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The current regional air quality plan for the NAAQS is SDAPCD's *2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County* (Attainment Plan; SDAPCD 2020). The regional air quality plan for the CAAQS is SDAPCD's *2016 Revision to the Regional Air Quality Strategy for San Diego County* (RAQS; SDAPCD 2016). A 2022 update to the 2016 RAQS is currently in progress (SDAPCD 2022). These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the NAAQS and CAAQS. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and RAQS.

The Attainment Plan and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of their respective general plans. As such, projects that propose development that is consistent with the growth anticipated by the local jurisdictions' general plans, and do not conflict with the control measures in the Attainment Plan and do not result in criteria pollutant and precursor emissions in excess of the thresholds adopted by the City (as described in Section 4.2, below), would be consistent with the Attainment Plan and RAQS to bring the SDAB into compliance with the NAAQS and CAAQS for the protection of public health.

The current federal and state attainment status for San Diego County is presented in Table 2, *San Diego Air Basin Attainment Status*.

Table 2
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	(No federal standard)	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassifiable
Visibility	(No federal standard)	Unclassifiable

Source: SDAPCD 2019

2.2 TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. Air toxics are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Public exposure to TACs is a significant environmental health issue in California.

2.3 ODORS

The State of California Health and Safety Code Sections 41700 and 41705 and SDAPCD Rule 51 (commonly referred to as public nuisance law) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area will be considered a significant, adverse odor impact.

The San Diego Municipal Code also addresses odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, "Air Contaminant Regulations," which states:

> Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling, shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity.

The predominant wind direction in the vicinity of Project site is from the west-northwest and the average wind speed is 6.6 mph (Iowa Environmental Mesonet 2021). The annual average maximum temperature in the Project area is approximately 67°F, and the annual average minimum temperature is approximately 56°F. Total precipitation in the Project area averages approximately 10 inches annually. Precipitation occurs mostly during the winter and infrequently during the summer (Western Regional Climate Center 2016).

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

3.2 EXISTING AIR QUALITY

3.2.1 Criteria Pollutants

3.2.1.1 Attainment Designations

Attainment designations are discussed in Section 2.1.1 and shown in Table 2. The SDAB is classified as a nonattainment area under the NAAQS for 8-hour ozone and as a nonattainment area under the CAAQS for 1-hour ozone, 8-hour ozone, PM_{10}, and $PM_{2.5}$. The SDAB is an attainment area for all other criteria pollutants.

3.2.1.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the Project site is the Sherman Elementary School monitoring station located approximately three miles west of the Project site. The Sherman Elementary School monitoring station does not include data for PM_{10}; therefore, data was gathered from the Chula Vista monitoring station located approximately five miles south of the Project site. Air quality data for these monitoring stations are shown in Table 3, *Air Quality Monitoring Data.*

Table 3
AIR QUALITY MONITORING DATA

Pollutant	2018	2019	2020
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	*	0.084	0.115
Days above 1-hour state standard (>0.09 ppm)	*	0	2
Maximum 8-hour concentration (ppm)	*	0.072	0.088
Days above 8-hour state standard (>0.070 ppm)	*	1	3
Days above 8-hour federal standard (>0.075 ppm)	*	1	3
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	*	*	*
Days above state or federal standard (>9.0 ppm)	*	*	*

Pollutant	2018	2019	2020
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour concentration (µg/m³)	45.0	69.4	*
Days above state standard (>50 µg/m³)	0	1	*
Days above federal standard (>150 µg/m³)	0	0	*
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m³)	*	21.0	54.4
Days above federal standard (>35 µg/m³)	*	0	2
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	*	0.062	0.053
Days above state 1-hour standard (0.18 ppm)	0	0	0

Source: CARB 2022b

*Insufficient data available

ppm = parts per million, µg/m³ = micrograms per cubic meter

From 2018 to 2020, monitoring data at the Sherman Elementary School and Chula Vista stations show acceptable levels of PM_{10} and NO_2. The state 1-hour ozone standard was violated twice in 2020. The state and federal 8-hour ozone standards were violated one time in 2019 and three times in 2020. The federal $PM_{2.5}$ standard was violated twice in 2020.

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant and ozone precursor emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0 (California Air Pollution Control Officers Association [CAPCOA] 2021). CalEEMod is a computer model used to estimate air pollutant emissions resulting from construction and operation of land development projects throughout the state of California. CalEEMod was developed by CAPCOA with the input of several air quality management and pollution control districts. The input data and subsequent construction and operation emission estimates for the proposed Project are discussed below. CalEEMod output files are included in Appendix A.

4.1.1 Construction

As described above, construction emissions are assessed using the CalEEMod, Version 2020.4.0. CalEEMod contains OFFROAD2011 and EMFAC2017 emission factors from CARB's models for off-road equipment and on-road vehicles, respectively. Construction input data for CalEEMod include but are not limited to: (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the Project area. The analysis assessed maximum daily emissions from individual construction activities including site clearing and grubbing, grading, building construction, paving, and architectural coatings.

The Project's anticipated construction schedule was determined from input provided by MTS. Table 4, *Anticipated Construction Schedule*, shows the anticipated construction schedule for Project construction.

Table 4
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Start	Construction End
Demolition	7/1/2024	7/26/2024
Site Preparation	7/27/2024	8/9/2024
Grading	8/10/2024	9/27/2024
Building Construction	9/28/2024	10/27/2025
Paving	10/28/2025	11/24/2025
Architectural Coatings	11/25/2025	12/22/2025

Construction would require heavy equipment during these various construction activities. Construction equipment estimates are based on model defaults. Table 5, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 5
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment	Number
Demolition	Concrete/Industrial Saw	1
	Excavator	3
	Rubber Tired Dozer	2
Site Preparation	Rubber Tired Dozer	3
	Tractor/Loader/Backhoe	4
Grading	Excavator	2
	Grader	1
	Rubber Tired Dozer	1
	Scraper	2
	Tractor/Loader/Backhoe	2
Building Construction	Crane	1
	Forklift	3
	Generator Set	1
	Tractor/Loader/Backhoe	3
	Welder	1
Paving	Paver	2
	Paving Equipment	2
	Roller	2
Architectural Coating	Air Compressor	1

CalEEMod (output data, including equipment horsepower, is provided in Appendix A).

Project construction would involve the demolition of approximately 113,000 sf of industrial buildings generating approximately 16,100 tons of debris to be hauled off-site.

The quantity, duration, and the intensity of construction activity influence the amount of construction emissions and their related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a large amount of construction is occurring in an intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than incorporated in CalEEMod,

and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

CalEEMod has the capability to calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. Construction emission calculations presented herein assume the implementation of standard dust control measures listed in Section 1.3, including watering two times daily during grading, ensuring that all exposed surfaces maintain a minimum soil moisture of 12 percent, and limiting vehicle speeds on unpaved roads to 15 mph.

The Project would also meet the requirements of SDAPCD Rule 67 by using low-VOC coatings. The quantities of coatings that would be applied to the interior and exterior of the new buildings were estimated according to CalEEMod default assumptions.

4.1.2 Operational

Operational impacts associated with the Project were estimated using CalEEMod. Operational sources of emissions include area, energy, transportation, and offroad sources. Operational emissions from area sources include engine emissions from landscape maintenance equipment and VOC emissions from repainting of buildings. The Project's area source emissions were modeled using CalEEMod defaults with adjustments based on required compliance with SDAPCD Rule 67 for architectural coatings. Energy source emissions include the combustion of natural gas for heating and hot water. The Project's assumed natural gas usage was based on CalEEMod defaults.

Operational emissions from mobile sources are associated with Project-related vehicle trip generation and trip length. Based on the Transportation Impact Study (TIS) prepared for the Project (VRPA Technologies, Inc. 2022), the Project would generate 2,090 average daily trips (ADT); this was broken down as 1,590 ADT by employees and 500 ADT by buses. The TIS also included a vehicle miles traveled (VMT) analysis from which it was estimated that the average employee trip length would be 5.59 miles.

Operational emissions from offroad sources include emissions from testing of the three proposed backup emergency generators. Generator emissions were estimated based on the power rating provided by the MTS and an assumed biweekly testing schedule of 12 minutes per test.

4.2 SIGNIFICANCE CRITERIA

MTS has not adopted thresholds for use in CEQA documents where they are the lead agency. In the absence of MTS adopted thresholds, this analysis relies on the City of San Diego (2020) approved guidelines for determining significance, which are based on Appendix G of the CEQA Guidelines. The City of San Diego guidelines state that a project would have a significant air quality environmental impact if it would:

(1) Conflict with or obstruct implementation of the Attainment Plan or applicable portions of the State Implementation Plan;

(2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

(3) Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

(4) Expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations; or

(5) Create objectionable odors affecting a substantial number of people.

The City of San Diego's adopted guidelines for determining significance differ slightly from the Governor's Office of Planning and Research updated Appendix G CEQA Guidelines as related to air quality in that the Appendix G Guidelines combined City of San Diego guidelines 2 and 3 listed above.

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, (b) result in a cumulatively considerable net increase of PM_{10}, PM_{10}, or exceed quantitative thresholds for ozone precursors (NO_X and VOCs), or (c) have an adverse effect on human health, project emissions may be evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rules 20.2 and 20.3 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of a SDAPCD adopted thresholds for $PM_{2.5}$, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year is used.

The screening criteria were developed by SDAPCD and SCAQMD with the purpose of attaining the NAAQS and CAAQS. The NAAQS and CAAQS, as discussed in Section 2.1.1, identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Therefore, for CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality or have an adverse effect on human health. The screening thresholds are included in Table 6, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 6
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions Pounds per Hour	Total Emissions Pounds per Day	Total Emissions Tons per Year
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)[1]	---	67	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	137	15

Source: City of San Diego 2020

[1] The City does not specify a threshold for $PM_{2.5}$. Threshold here is based on SDAPCD Rules 20.1, 20.2, and 20.3.

Per the City of San Diego's Significance Determination Thresholds, determining the significance of potential odor impacts should be based on what is known about the quantity of the odor compound(s) that would result from the Project's proposed use(s), the types of neighboring uses potentially affected,

the distance(s) between the Project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentrations at receptors.

5.0 IMPACT ANALYSIS

This section evaluates potential direct impacts of the proposed Project related to the air pollutant emissions.

5.1 CONSISTENCY WITH AIR QUALITY PLANS

The SDAPCD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the Attainment Plan and RAQS, prepared by the SDAPCD for the region. Both the Attainment Plan and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the local jurisdictions' general plans would be consistent with the Attainment Plan and RAQS. In the event that a project proposes development that is less intensive than anticipated within the General Plan, the project would likewise be consistent with the Attainment Plan and RAQS. If a project proposes development that is greater than that anticipated in the General Plan and SANDAG's growth projections upon which the Attainment Plan and RAQS are based, the project would be in conflict with the Attainment Plan and RAQS and might have a potentially significant impact on air quality. This situation would warrant further analysis to determine whether the project and the surrounding projects exceed the growth projections used in the Attainment Plan and RAQS for the specific subregional area.

The Project is located within the Mid-City Community Plan area and complies with the land use designation of Industrial and zoning of light industrial (IL-3-1). Community plans work together with the General Plan to provide location-based policies and recommendations in the City of San Diego's 50-plus community planning areas. Community plans are written to refine the General Plan's citywide policies, designate land uses and housing densities, and include additional site-specific recommendations as needed. The Project has been designed to be compatible with the existing and potential future uses in the general area. Based on the described conformance with applicable land use and zoning criteria, the Project would be in conformance with the Community Plan and would therefore be consistent with the Attainment Plan and RAQS.

Furthermore, as detailed in Section 5.2, below, the Project would not result in a significant air quality impact with regards to construction- and operational-related emissions of ozone precursors or criteria air pollutants. The Project would also comply with existing and new rules and regulations as they are implemented by the SDAPCD, CARB, and/or USEPA related to emissions generated during construction. Impacts associated with conformance to regional air quality plans would be less than significant.

5.2 CONFORMANCE TO FEDERAL AND STATE AIR QUALITY STANDARDS

The Project would generate criteria pollutants and ozone precursors in the short term during construction and in the long term during operation. To determine whether the Project would result in emissions that would violate an air quality standard, contribute substantially to an existing or projected air quality violation, or have an adverse effect on human health, the Project's emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 6).

5.2.1 Construction

The Project's construction emissions were estimated using CalEEMod as described in Section 4.1.1. As described therein, construction was assumed to begin in July 2024 and continue through the end of December 2025 with all construction activities occurring sequentially. Project-specific input was based on information provided by MTS and default model settings to estimate reasonably conservative conditions. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

The results of the calculations for the various phases of Project construction are shown in Table 7, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SDAPCD thresholds.

Table 7
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	VOC*	NO_X*	CO*	SO_X*	PM_{10}*	$PM_{2.5}$*
Demolition	2	32	23	<0.5	10	3
Site Preparation	3	27	19	<0.5	10	6
Grading	3	32	28	<0.5	6	3
Building Construction	2	~~17~~16	~~21~~20	<0.5	2	1
Paving	~~4~~3	9	15	<0.5	1	<0.5
Architectural Coatings	~~35~~55	1	2	<0.5	<0.5	<0.5
Maximum Daily Emissions	**~~35~~55**	**32**	**28**	**<0.5**	**10**	**6**
Significance Thresholds	*137*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)

* Pollutant Emissions (pounds per day)

VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 7, emissions of all criteria pollutants and ozone precursors from Project construction would be below the applicable significance thresholds. Therefore, direct impacts associated with criteria pollutants generated during Project construction would be less than significant.

5.2.2 Operation

The Project's operational emissions were estimated using CalEEMod, as described in Section 4.1.2. As discussed therein, the Project's operational sources of emissions would include area, energy, transportation, and offroad. Operational emissions calculations and model outputs are provided in

Appendix A. Table 8, *Daily Operational Emissions*, presents the calculated operational emissions for the Project.

Table 8
DAILY OPERATIONAL EMISSIONS

Category	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	~~3~~5	<0.5	<0.5	<0.5	<0.5	<0.5
Energy	<0.5	1	<0.5	<0.5	<0.5	<0.5
Mobile	4	3	30	<0.5	~~10~~8	~~3~~2
Offroad	<0.5	1	1	<0.5	<0.5	<0.5
Total Daily Emissions	**~~7~~9**	**5**	**31**	**<0.5**	**~~10~~8**	**~~3~~2**
Significance Thresholds	*137*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
Note: The total presented is the sum of the unrounded values.
* Pollutant Emissions (pounds per day)
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

As shown in Table 8, emissions of all criteria pollutants and ozone precursors associated with the Project operations would be below the applicable significance thresholds. Therefore, direct impacts associated with criteria pollutants generated during Project operations would be less than significant.

5.3 CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

The region is a federal and/or state nonattainment area for PM_{10}, $PM_{2.5}$, and ozone. The Project would contribute particulates and the ozone precursors VOC and NO_X to the area during Project construction and operation. As described in Section 5.2, emissions during both construction and operations would not exceed regional thresholds and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, emissions would not be cumulatively considerable, and impacts would be less than significant.

5.4 IMPACTS TO SENSITIVE RECEPTORS

Impacts to sensitive receptors are typically analyzed for operational period CO hotspots and exposure to TACs. An analysis of the Project's potential to expose sensitive receptors to these pollutants is provided below.

5.4.1 Carbon Monoxide Hotspots

Localized air quality effects can occur when emissions from vehicular traffic increase in local areas. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited—it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections

operating at unacceptable levels of service or with extremely high traffic volumes. If a project generates vehicular traffic that increases average delay at signalized intersections operating at Level of Service (LOS) E or F or causes an intersection that would operate at LOS D or better without the project to operate at LOS E of F with the project, the project could result in significant CO hotspot-related effects to sensitive receptors.

According to the TIS prepared for the Project (VRPA Technologies, Inc. 2022), all analyzed intersections would operate at LOS D or better with Project implementation. The Project would not increase average delay at signalized intersections operating at LOS E or F or cause an intersection that would operate at LOS D or better without the Project to operate at LOS E or F with the Project. Furthermore, the bus fleet would consist of ZEBs which do not result in tailpipe emissions of CO. Therefore, the Project would not have the potential to result in a CO hotspot, and impacts would be less than significant.

5.4.2 Exposure to Toxic Air Contaminants

5.4.2.1 Construction

Diesel engines emit a complex mixture of air pollutants, including gaseous material and DPM. DPM emissions would be released from operation of the on-site construction equipment used for Project construction. CARB has declared that DPM from diesel engine exhaust is a TAC. Additionally, the Office of Environmental Health Hazard Assessment has determined that chronic exposure to DPM can cause carcinogenic and non-carcinogenic health effects. For this reason, although other pollutants would be generated, DPM would be the primary pollutant of concern.

The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments (HRAs), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with a project.

There would be few pieces of off-road, heavy-duty diesel equipment operating at a given time during Project construction, and the construction period would be relatively short, especially when compared to 30 years. In addition, as shown above in Table 7, the highest daily emission of PM_{10} (which includes equipment emissions of DPM) during construction is estimated to be approximately 10 pounds per day, which would be well below the 100 pounds per day significance level threshold. As discussed above in Section 2.1.1, these significance level thresholds were developed with the purpose of attaining the NAAQS and CAAQS, which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Combined with the highly dispersive properties of diesel PM, construction-related emissions would not expose sensitive receptors to substantial emissions of TACs. Impacts from construction emissions would be less than significant.

5.4.2.2 Operation

CARB siting recommendations within the *Air Quality and Land Use Handbook* suggest a detailed health risk assessment should be conducted for sensitive receptors within 1,000 feet of a warehouse distribution center, within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater), 50 feet of a typical gas dispensing facilities, or within 300 feet of

a dry cleaning facility that uses perchloroethylene (PCE), among other siting recommendations (CARB 2005). While the Project does include 500 daily bus trips, the entire fleet would consist of electric ZEBs that would not generate any TACs on site. As such, impacts would be less than significant.

5.5 ODORS

As discussed above in Section 2.3, the State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the Project site will be considered a significant odor impact.

The Project could produce odors during proposed construction activities from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

During Project operation, the temporary storage of refuse could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's Municipal Code solid waste regulations, thereby precluding significant odor impacts. Furthermore, the proposed Project would be required to comply with SDAPCD Rule 51 which prohibits the discharge of odorous emissions that would create a public nuisance. Additionally, while the Project does include 500 daily bus trips, the entire fleet would consist of electric ZEBs that would not generate odorous emissions associated with fuel exhaust. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people. Impacts would be less than significant.

6.0 CLEAN AIR ACT CONFORMITY

In November 1993, USEPA promulgated two sets of regulations to implement Section 176(c) of the Clean Air Act. First, on November 24, USEPA promulgated the Transportation Conformity Regulations, which apply to highways and mass transit. These regulations establish the criteria and procedures for determining whether transportation plans, programs, and projects funded under title 23 U.S.C. or the Federal Transit Act conform with the SIP (58 FR 62188). Then, on November 30, USEPA promulgated a second set of regulations, known as the General Conformity Regulations, which apply to all other federal actions. These regulations ensured that other federal actions also conformed to the SIPs (58 FR 63214).

Clean Air Act conformity is required by the Clean Air Act section 176(c)~~©~~ (42 U.S.C. 7506(c)) to ensure that federal funding and approval are given to projects that are consistent with (conform to) the air quality goals established by the SIP. Conformity, to the purpose of the SIP, means that federal actions would not cause new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards. As described previously, the FTA will be providing federal financial assistance, therefore, a determination must be made as to whether the Project conforms to the SIP. Because the Project is a mass transit project, the Transportation Conformity Regulations are applicable.

Title 40, Code of Federal Regulations (CFR) Section 93.126 provides a list of highway and transit project types that are exempt from the requirement to determine conformity. Project types included in this list may proceed toward implementation even in the absence of a conforming transportation plan and transportation improvement program. As described previously, the Project involves the construction of a new bus maintenance facility, administration and operation office, and storage areas. Table 2, Exempt Projects, of Title 40, CFR 93.126 lists "construction of new bus or rail storage/maintenance facilities" under mass transit as being exempt from conformity requirements. Therefore, all air quality conformity requirements have been met and the Project would not conflict with implementation of the SIP.

7.0 LIST OF PREPARERS

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Appendix A

CalEEMod Output

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

MTS Clean Transit Advancement Campus

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	75.00	1000sqft	1.72	75,000.00	0
Parking Lot	660.00	Space	17.72	136,000.00	0
Automobile Care Center	155.00	1000sqft	3.56	155,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2026
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 23-acre site with 155 ksf maintenance facility; 75 ksf admin and operations office building; 136 ksf of parking for 250 buses, 350 employee vehicles, and 60 non-revenue vehicles.

Construction Phase - Construction schedule provided by MTS

Trips and VMT - Demo haul truck trips provided by MTS

Demolition -

Architectural Coating - SDAPCD Rule 67

Vehicle Trips - From VRPA Technologies, Inc. 2022: Employee trips assigned to Gen Office Bldg; Bus trips assigned to AutoCareCenter;
VMT/employee is 15.3 mi. Total staff is 581 employees. Total staff trips is 1,590.
1,590/581=2.74 trips/employee
15.3/2.74=5.59 miles/trip

Vehicle Emission Factors - Bus emission factors updated for ZEB (retained tire wear and brake wear)

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

Vehicle Emission Factors - Bus emission factors updated for ZEB (retained tire wear and brake wear)

Vehicle Emission Factors - Bus emission factors updated for ZEB (retained tire wear and brake wear)

Fleet Mix - AutoCareCenter use fleet mix revised to capture bus trips.

Area Coating - SDAPCD Rule 67

Energy Use - Potential BEB energy consumption for site with 250 BEBs = 3,700 MWh/yr

Water And Wastewater -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Parking	250	100
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstructionPhase	NumDays	370.00	281.00
tblEnergyUse	NT24E	0.00	27,205.88
tblFleetMix	HHD	6.3160e-003	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.3590e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	4.5590e-003	0.00
tblFleetMix	MHD	9.1560e-003	0.00
tblFleetMix	OBUS	6.9900e-004	0.00

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

tblFleetMix	SBUS	9.3700e-004	0.00
tblFleetMix	UBUS	5.8600e-004	1.00
tblLandUse	LandUseSquareFeet	264,000.00	136,000.00
tblLandUse	LotAcreage	5.94	17.72
tblTripsAndVMT	HaulingTripNumber	1,592.00	1,610.00
tblVehicleEF	UBUS	4.89	0.00
tblVehicleEF	UBUS	0.02	0.00
tblVehicleEF	UBUS	38.17	0.00
tblVehicleEF	UBUS	1.22	0.00
tblVehicleEF	UBUS	1,896.29	0.00
tblVehicleEF	UBUS	13.82	0.00
tblVehicleEF	UBUS	0.31	0.00
tblVehicleEF	UBUS	0.01	0.00
tblVehicleEF	UBUS	0.41	0.00
tblVehicleEF	UBUS	0.13	0.00
tblVehicleEF	UBUS	3.1030e-003	0.00
tblVehicleEF	UBUS	1.7700e-004	0.00
tblVehicleEF	UBUS	2.9470e-003	0.00
tblVehicleEF	UBUS	1.6300e-004	0.00
tblVehicleEF	UBUS	5.5800e-004	0.00
tblVehicleEF	UBUS	6.6510e-003	0.00
tblVehicleEF	UBUS	5.0500e-004	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	1.1160e-003	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	3.6950e-003	0.00
tblVehicleEF	UBUS	1.3700e-004	0.00
tblVehicleEF	UBUS	5.5800e-004	0.00
tblVehicleEF	UBUS	6.6510e-003	0.00

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

tblVehicleEF	UBUS	5.0500e-004	0.00
tblVehicleEF	UBUS	5.00	0.00
tblVehicleEF	UBUS	1.1160e-003	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	4.89	0.00
tblVehicleEF	UBUS	0.01	0.00
tblVehicleEF	UBUS	38.17	0.00
tblVehicleEF	UBUS	1.05	0.00
tblVehicleEF	UBUS	1,896.29	0.00
tblVehicleEF	UBUS	13.53	0.00
tblVehicleEF	UBUS	0.31	0.00
tblVehicleEF	UBUS	0.01	0.00
tblVehicleEF	UBUS	0.40	0.00
tblVehicleEF	UBUS	0.13	0.00
tblVehicleEF	UBUS	3.1030e-003	0.00
tblVehicleEF	UBUS	1.7700e-004	0.00
tblVehicleEF	UBUS	2.9470e-003	0.00
tblVehicleEF	UBUS	1.6300e-004	0.00
tblVehicleEF	UBUS	7.9100e-004	0.00
tblVehicleEF	UBUS	7.1380e-003	0.00
tblVehicleEF	UBUS	9.4600e-004	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	1.0150e-003	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	3.6950e-003	0.00
tblVehicleEF	UBUS	1.3400e-004	0.00
tblVehicleEF	UBUS	7.9100e-004	0.00
tblVehicleEF	UBUS	7.1380e-003	0.00
tblVehicleEF	UBUS	9.4600e-004	0.00

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

tblVehicleEF	UBUS	5.00	0.00
tblVehicleEF	UBUS	1.0150e-003	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	4.89	0.00
tblVehicleEF	UBUS	0.02	0.00
tblVehicleEF	UBUS	38.17	0.00
tblVehicleEF	UBUS	1.30	0.00
tblVehicleEF	UBUS	1,896.29	0.00
tblVehicleEF	UBUS	13.95	0.00
tblVehicleEF	UBUS	0.31	0.00
tblVehicleEF	UBUS	0.01	0.00
tblVehicleEF	UBUS	0.41	0.00
tblVehicleEF	UBUS	0.14	0.00
tblVehicleEF	UBUS	3.1030e-003	0.00
tblVehicleEF	UBUS	1.7700e-004	0.00
tblVehicleEF	UBUS	2.9470e-003	0.00
tblVehicleEF	UBUS	1.6300e-004	0.00
tblVehicleEF	UBUS	5.0900e-004	0.00
tblVehicleEF	UBUS	7.5380e-003	0.00
tblVehicleEF	UBUS	4.5000e-004	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleEF	UBUS	1.3590e-003	0.00
tblVehicleEF	UBUS	0.06	0.00
tblVehicleEF	UBUS	3.6950e-003	0.00
tblVehicleEF	UBUS	1.3800e-004	0.00
tblVehicleEF	UBUS	5.0900e-004	0.00
tblVehicleEF	UBUS	7.5380e-003	0.00
tblVehicleEF	UBUS	4.5000e-004	0.00
tblVehicleEF	UBUS	5.00	0.00

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

tblVehicleEF	UBUS	1.3590e-003	0.00
tblVehicleEF	UBUS	0.07	0.00
tblVehicleTrips	CC_TL	7.30	5.59
tblVehicleTrips	CNW_TL	7.30	5.59
tblVehicleTrips	CW_TL	9.50	5.59
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	ST_TR	23.72	3.23
tblVehicleTrips	ST_TR	2.21	21.20
tblVehicleTrips	SU_TR	11.88	3.23
tblVehicleTrips	SU_TR	0.70	21.20
tblVehicleTrips	WD_TR	23.72	3.23
tblVehicleTrips	WD_TR	9.74	21.20

2.0 Emissions Summary

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.2739	32.4113	28.1491	0.0871	19.8049	1.3362	21.0350	10.1417	1.2293	11.2734	0.0000	9,082.7648	9,082.7648	1.9475	0.8359	9,365.0383
2025	55.4329	15.3095	19.6206	0.0472	1.4825	0.5486	2.0311	0.4024	0.5162	0.9186	0.0000	4,685.3669	4,685.3669	0.7164	0.2081	4,764.0407
Maximum	**55.4329**	**32.4113**	**28.1491**	**0.0871**	**19.8049**	**1.3362**	**21.0350**	**10.1417**	**1.2293**	**11.2734**	**0.0000**	**9,082.7648**	**9,082.7648**	**1.9475**	**0.8359**	**9,365.0383**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.2739	32.4113	28.1491	0.0871	9.3797	1.3362	10.4306	4.5853	1.2293	5.7170	0.0000	9,082.7648	9,082.7648	1.9475	0.8359	9,365.0383
2025	55.4329	15.3095	19.6206	0.0472	1.4825	0.5486	2.0311	0.4024	0.5162	0.9186	0.0000	4,685.3669	4,685.3669	0.7164	0.2081	4,764.0407
Maximum	**55.4329**	**32.4113**	**28.1491**	**0.0871**	**9.3797**	**1.3362**	**10.4306**	**4.5853**	**1.2293**	**5.7170**	**0.0000**	**9,082.7648**	**9,082.7648**	**1.9475**	**0.8359**	**9,365.0383**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**48.97**	**0.00**	**45.97**	**52.70**	**0.00**	**45.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	5.2810	8.2000e-004	0.0906	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004		0.1948	0.1948	5.1000e-004		0.2074
Energy	0.0971	0.8831	0.7418	5.3000e-003		0.0671	0.0671		0.0671	0.0671		1,059.7421	1,059.7421	0.0203	0.0194	1,066.0397
Mobile	3.5093	3.4595	29.6901	0.0585	8.0285	0.0464	8.0748	2.1549	0.0432	2.1981		5,952.8920	5,952.8920	0.4262	0.2929	6,050.8358
Stationary	0.2527	0.7369	0.7152	1.2100e-003		0.0372	0.0372		0.0372	0.0372		129.2852	129.2852	0.0181		129.7383
Total	**9.1401**	**5.0804**	**31.2377**	**0.0651**	**8.0285**	**0.1510**	**8.1795**	**2.1549**	**0.1478**	**2.3027**		**7,142.1141**	**7,142.1141**	**0.4652**	**0.3124**	**7,246.8213**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2810	8.2000e-004	0.0906	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004		0.1948	0.1948	5.1000e-004		0.2074
Energy	0.0971	0.8831	0.7418	5.3000e-003		0.0671	0.0671		0.0671	0.0671		1,059.7421	1,059.7421	0.0203	0.0194	1,066.0397
Mobile	3.5093	3.4595	29.6901	0.0585	8.0285	0.0464	8.0748	2.1549	0.0432	2.1981		5,952.8920	5,952.8920	0.4262	0.2929	6,050.8358
Stationary	0.2527	0.7369	0.7152	1.2100e-003		0.0372	0.0372		0.0372	0.0372		129.2852	129.2852	0.0181		129.7383
Total	**9.1401**	**5.0804**	**31.2377**	**0.0651**	**8.0285**	**0.1510**	**8.1795**	**2.1549**	**0.1478**	**2.3027**		**7,142.1141**	**7,142.1141**	**0.4652**	**0.3124**	**7,246.8213**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2024	7/26/2024	5	20	
2	Site Preparation	Site Preparation	7/27/2024	8/9/2024	5	10	
3	Grading	Grading	8/10/2024	9/27/2024	5	35	
4	Building Construction	Building Construction	9/28/2024	10/27/2025	5	281	

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

5	Paving	Paving	10/28/2025	11/24/2025	5	20	
6	Architectural Coating	Architectural Coating	11/25/2025	12/22/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 17.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 345,000; Non-Residential Outdoor: 115,000; Striped Parking Area: 8,160 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,610.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	131.00	60.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.4411	0.0000	17.4411	2.6412	0.0000	2.6412			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922		3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**17.4411**	**0.9602**	**18.4013**	**2.6412**	**0.8922**	**3.5334**		**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

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

3.2 Demolition - 2024

Unmitigated Construction 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	0.1692	10.8608	2.9690	0.0472	1.4080	0.0901	1.4981	0.3859	0.0862	0.4721		5,234.7450	5,234.7450	0.2758	0.8331	5,489.9082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0257	0.3198	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		100.5971	100.5971	2.9000e-003	2.7700e-003	101.4956
Total	**0.2111**	**10.8865**	**3.2887**	**0.0482**	**1.5312**	**0.0907**	**1.6219**	**0.4186**	**0.0867**	**0.5054**		**5,335.3420**	**5,335.3420**	**0.2787**	**0.8359**	**5,591.4038**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8485	0.0000	7.8485	1.1885	0.0000	1.1885			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922	0.0000	3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**7.8485**	**0.9602**	**8.8087**	**1.1885**	**0.8922**	**2.0807**	**0.0000**	**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

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

3.2 Demolition - 2024

Mitigated Construction 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	0.1692	10.8608	2.9690	0.0472	1.4080	0.0901	1.4981	0.3859	0.0862	0.4721		5,234.7450	5,234.7450	0.2758	0.8331	5,489.9082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0418	0.0257	0.3198	1.0000e-003	0.1232	6.3000e-004	0.1239	0.0327	5.8000e-004	0.0333		100.5971	100.5971	2.9000e-003	2.7700e-003	101.4956
Total	**0.2111**	**10.8865**	**3.2887**	**0.0482**	**1.5312**	**0.0907**	**1.6219**	**0.4186**	**0.0867**	**0.5054**		**5,335.3420**	**5,335.3420**	**0.2787**	**0.8359**	**5,591.4038**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.3 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0502	0.0309	0.3837	1.1900e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		120.7165	120.7165	3.4800e-003	3.3300e-003	121.7947
Total	**0.0502**	**0.0309**	**0.3837**	**1.1900e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**120.7165**	**120.7165**	**3.4800e-003**	**3.3300e-003**	**121.7947**

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					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**8.8457**	**1.2294**	**10.0750**	**4.5461**	**1.1310**	**5.6771**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.3 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0502	0.0309	0.3837	1.1900e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		120.7165	120.7165	3.4800e-003	3.3300e-003	121.7947
Total	**0.0502**	**0.0309**	**0.3837**	**1.1900e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**120.7165**	**120.7165**	**3.4800e-003**	**3.3300e-003**	**121.7947**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0558	0.0343	0.4263	1.3300e-003	0.1643	8.4000e-004	0.1651	0.0436	7.7000e-004	0.0444		134.1294	134.1294	3.8600e-003	3.7000e-003	135.3275
Total	**0.0558**	**0.0343**	**0.4263**	**1.3300e-003**	**0.1643**	**8.4000e-004**	**0.1651**	**0.0436**	**7.7000e-004**	**0.0444**		**134.1294**	**134.1294**	**3.8600e-003**	**3.7000e-003**	**135.3275**

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**4.1416**	**1.3354**	**5.4770**	**1.6442**	**1.2286**	**2.8728**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0558	0.0343	0.4263	1.3300e-003	0.1643	8.4000e-004	0.1651	0.0436	7.7000e-004	0.0444		134.1294	134.1294	3.8600e-003	3.7000e-003	135.3275
Total	**0.0558**	**0.0343**	**0.4263**	**1.3300e-003**	**0.1643**	**8.4000e-004**	**0.1651**	**0.0436**	**7.7000e-004**	**0.0444**		**134.1294**	**134.1294**	**3.8600e-003**	**3.7000e-003**	**135.3275**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0669	2.6623	0.9331	0.0121	0.4064	0.0158	0.4222	0.1170	0.0151	0.1321		1,305.0641	1,305.0641	0.0409	0.1891	1,362.4430
Worker	0.3654	0.2248	2.7925	8.6900e-003	1.0761	5.4900e-003	1.0816	0.2854	5.0600e-003	0.2905		878.5478	878.5478	0.0253	0.0242	886.3950
Total	**0.4323**	**2.8870**	**3.7256**	**0.0208**	**1.4825**	**0.0213**	**1.5038**	**0.4024**	**0.0202**	**0.4226**		**2,183.6119**	**2,183.6119**	**0.0662**	**0.2133**	**2,248.8380**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0669	2.6623	0.9331	0.0121	0.4064	0.0158	0.4222	0.1170	0.0151	0.1321		1,305.0641	1,305.0641	0.0409	0.1891	1,362.4430
Worker	0.3654	0.2248	2.7925	8.6900e-003	1.0761	5.4900e-003	1.0816	0.2854	5.0600e-003	0.2905		878.5478	878.5478	0.0253	0.0242	886.3950
Total	**0.4323**	**2.8870**	**3.7256**	**0.0208**	**1.4825**	**0.0213**	**1.5038**	**0.4024**	**0.0202**	**0.4226**		**2,183.6119**	**2,183.6119**	**0.0662**	**0.2133**	**2,248.8380**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0647	2.6364	0.9177	0.0118	0.4064	0.0158	0.4221	0.1170	0.0151	0.1321		1,280.2129	1,280.2129	0.0420	0.1854	1,336.5144
Worker	0.3449	0.2034	2.6182	8.4000e-003	1.0761	5.2500e-003	1.0814	0.2854	4.8300e-003	0.2903		848.6796	848.6796	0.0231	0.0227	856.0282
Total	**0.4096**	**2.8398**	**3.5359**	**0.0202**	**1.4825**	**0.0210**	**1.5035**	**0.4024**	**0.0199**	**0.4223**		**2,128.8925**	**2,128.8925**	**0.0651**	**0.2081**	**2,192.5426**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0647	2.6364	0.9177	0.0118	0.4064	0.0158	0.4221	0.1170	0.0151	0.1321		1,280.2129	1,280.2129	0.0420	0.1854	1,336.5144
Worker	0.3449	0.2034	2.6182	8.4000e-003	1.0761	5.2500e-003	1.0814	0.2854	4.8300e-003	0.2903		848.6796	848.6796	0.0231	0.0227	856.0282
Total	**0.4096**	**2.8398**	**3.5359**	**0.0202**	**1.4825**	**0.0210**	**1.5035**	**0.4024**	**0.0199**	**0.4223**		**2,128.8925**	**2,128.8925**	**0.0651**	**0.2081**	**2,192.5426**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	2.3213					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.2365**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332		97.1771	97.1771	2.6400e-003	2.6000e-003	98.0185
Total	**0.0395**	**0.0233**	**0.2998**	**9.6000e-004**	**0.1232**	**6.0000e-004**	**0.1238**	**0.0327**	**5.5000e-004**	**0.0332**		**97.1771**	**97.1771**	**2.6400e-003**	**2.6000e-003**	**98.0185**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	2.3213					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.2365**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0395	0.0233	0.2998	9.6000e-004	0.1232	6.0000e-004	0.1238	0.0327	5.5000e-004	0.0332		97.1771	97.1771	2.6400e-003	2.6000e-003	98.0185
Total	**0.0395**	**0.0233**	**0.2998**	**9.6000e-004**	**0.1232**	**6.0000e-004**	**0.1238**	**0.0327**	**5.5000e-004**	**0.0332**		**97.1771**	**97.1771**	**2.6400e-003**	**2.6000e-003**	**98.0185**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	55.1936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**55.3644**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0685	0.0404	0.5196	1.6700e-003	0.2136	1.0400e-003	0.2146	0.0567	9.6000e-004	0.0576		168.4402	168.4402	4.5800e-003	4.5100e-003	169.8987
Total	**0.0685**	**0.0404**	**0.5196**	**1.6700e-003**	**0.2136**	**1.0400e-003**	**0.2146**	**0.0567**	**9.6000e-004**	**0.0576**		**168.4402**	**168.4402**	**4.5800e-003**	**4.5100e-003**	**169.8987**

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	55.1936					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**55.3644**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0685	0.0404	0.5196	1.6700e-003	0.2136	1.0400e-003	0.2146	0.0567	9.6000e-004	0.0576		168.4402	168.4402	4.5800e-003	4.5100e-003	169.8987
Total	**0.0685**	**0.0404**	**0.5196**	**1.6700e-003**	**0.2136**	**1.0400e-003**	**0.2146**	**0.0567**	**9.6000e-004**	**0.0576**		**168.4402**	**168.4402**	**4.5800e-003**	**4.5100e-003**	**169.8987**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.5093	3.4595	29.6901	0.0585	8.0285	0.0464	8.0748	2.1549	0.0432	2.1981		5,952.8920	5,952.8920	0.4262	0.2929	6,050.8358
Unmitigated	3.5093	3.4595	29.6901	0.0585	8.0285	0.0464	8.0748	2.1549	0.0432	2.1981		5,952.8920	5,952.8920	0.4262	0.2929	6,050.8358

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	500.65	500.65	500.65	498,741	498,741
General Office Building	1,590.00	1,590.00	1590.00	3,235,268	3,235,268
Parking Lot	0.00	0.00	0.00		
Total	2,090.65	2,090.65	2,090.65	3,734,009	3,734,009

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
General Office Building	5.59	5.59	5.59	33.00	48.00	19.00	100	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
Automobile Care Center	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000
General Office Building	0.565387	0.062253	0.175474	0.116234	0.023574	0.006359	0.009156	0.006316	0.000699	0.000586	0.028465	0.000937	0.004559

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

Parking Lot	0.565387	0.062253	0.175474	0.116234	0.023574	0.006359	0.009156	0.006316	0.000699	0.000586	0.028465	0.000937	0.004559

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0971	0.8831	0.7418	5.3000e-003		0.0671	0.0671		0.0671	0.0671		1,059.7421	1,059.7421	0.0203	0.0194	1,066.0397
NaturalGas Unmitigated	0.0971	0.8831	0.7418	5.3000e-003		0.0671	0.0671		0.0671	0.0671		1,059.7421	1,059.7421	0.0203	0.0194	1,066.0397

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	4892.05	0.0528	0.4796	0.4029	2.8800e-003		0.0365	0.0365		0.0365	0.0365		575.5359	575.5359	0.0110	0.0106	578.9560
General Office Building	4115.75	0.0444	0.4035	0.3389	2.4200e-003		0.0307	0.0307		0.0307	0.0307		484.2063	484.2063	9.2800e-003	8.8800e-003	487.0837
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0972**	**0.8831**	**0.7418**	**5.3000e-003**		**0.0671**	**0.0671**		**0.0671**	**0.0671**		**1,059.7422**	**1,059.7422**	**0.0203**	**0.0194**	**1,066.0397**

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					
Automobile Care Center	4.89205	0.0528	0.4796	0.4029	2.8800e-003		0.0365	0.0365		0.0365	0.0365		575.5359	575.5359	0.0110	0.0106	578.9560
General Office Building	4.11575	0.0444	0.4035	0.3389	2.4200e-003		0.0307	0.0307		0.0307	0.0307		484.2063	484.2063	9.2800e-003	8.8800e-003	487.0837
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0972**	**0.8831**	**0.7418**	**5.3000e-003**		**0.0671**	**0.0671**		**0.0671**	**0.0671**		**1,059.7422**	**1,059.7422**	**0.0203**	**0.0194**	**1,066.0397**

6.0 Area Detail

6.1 Mitigation Measures Area

MTS Clean Transit Advancement Campus - San Diego County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2810	8.2000e-004	0.0906	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004		0.1948	0.1948	5.1000e-004		0.2074
Unmitigated	5.2810	8.2000e-004	0.0906	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004		0.1948	0.1948	5.1000e-004		0.2074

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	0.3024					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3500e-003	8.2000e-004	0.0906	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004		0.1948	0.1948	5.1000e-004		0.2074
Total	**5.2810**	**8.2000e-004**	**0.0906**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**		**0.1948**	**0.1948**	**5.1000e-004**		**0.2074**

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	0.3024					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.9702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3500e-003	8.2000e-004	0.0906	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004		0.1948	0.1948	5.1000e-004		0.2074
Total	**5.2810**	**8.2000e-004**	**0.0906**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**		**0.1948**	**0.1948**	**5.1000e-004**		**0.2074**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.2	5	201	0.73	Diesel
Emergency Generator	1	0.2	5	369	0.73	Diesel
Emergency Generator	1	0.5	5	80	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.0660	0.1844	0.1682	3.2000e-004		9.7000e-003	9.7000e-003		9.7000e-003	9.7000e-003		33.7485	33.7485	4.7300e-003		33.8668
Emergency Generator - Diesel (300 - 600 HP)	0.1211	0.3385	0.3088	5.8000e-004		0.0178	0.0178		0.0178	0.0178		61.9561	61.9561	8.6900e-003		62.1733
Emergency Generator - Diesel (75 - 100 HP)	0.0656	0.2141	0.2382	3.2000e-004		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003		33.5806	33.5806	4.7100e-003		33.6983
Total	**0.2527**	**0.7369**	**0.7152**	**1.2200e-003**		**0.0372**	**0.0372**		**0.0372**	**0.0372**		**129.2852**	**129.2852**	**0.0181**		**129.7383**

11.0 Vegetation