Appendix A

Air Quality & Greenhouse Gas Emissions Impact Study

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BOYLE HEIGHTS SPORTS CENTER GYM

AIR QUALITY AND GREENHOUSE GAS EMISSIONS IMPACT STUDY

Prepared for
LOS ANGELES BUREAU OF ENGINEERING

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1.0 SUMMARY OF FINDINGS

Terry A. Hayes Associates Inc. (TAHA) has completed an Air Quality and Greenhouse Gas (GHG) Emissions Impact Study for the Los Angeles Bureau of Engineering (LABOE) Boyle Heights Sports Center Gym (proposed project). The analyses assessed potential environmental impacts related to air pollutant and GHG emissions resulting from construction and operation of the proposed project. Emissions were evaluated for significance in accordance with applicable South Coast Air Quality Management District (SCAQMD) methodologies for individual development projects within the South Coast Air Basin (SCAB). The air quality impact assessment was conducted in accordance with the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist criteria. A summary describing the conclusions of potential air quality impacts associated with implementation of the proposed project is provided in **Table 1-1**.

TABLE 1-1: SUMMARY OF IMPACT STATEMENTS

Impact Statement	Level of Significance	Applicable Mitigation Measures
AIR QUALITY		
Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?	Less-Than-Significant Impact	None
Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Less-Than-Significant Impact	None
Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Less-Than-Significant Impact	None
Would the proposed project expose sensitive receptors to substantial pollutant concentrations?	Less-Than-Significant Impact	None
Would the proposed project create objectionable odors affecting a substantial number of people?	Less-Than-Significant Impact	None
GREENHOUSE GAS EMISSIONS		
Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less-Than-Significant Impact	None
Would the proposed project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less-Than-Significant Impact	None

SOURCE: TAHA, 2018.

2.0 INTRODUCTION

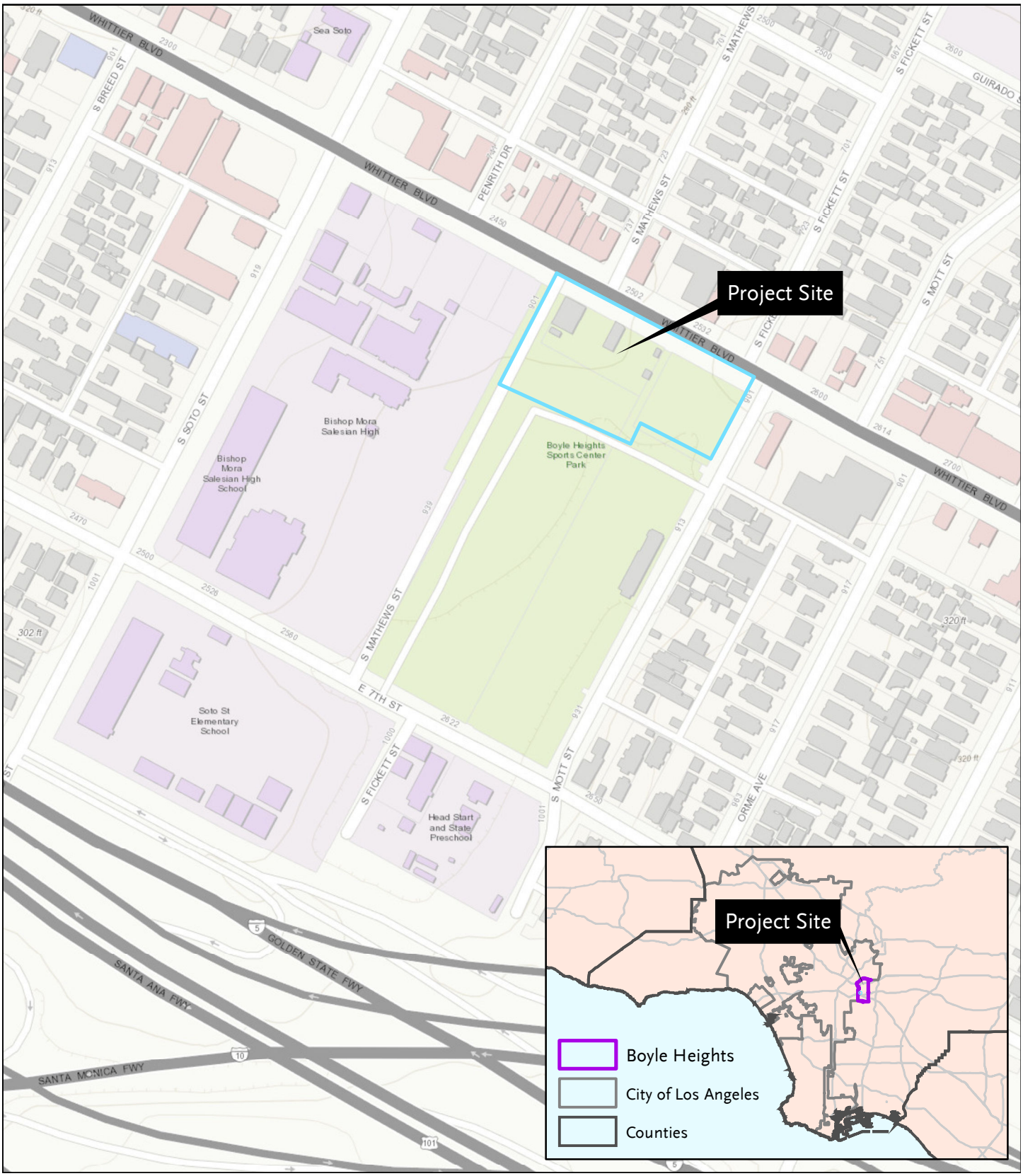
2.1 PURPOSE OF REPORT

The purpose of this report is to assess the potential significance of environmental impacts related to air quality and GHG emissions associated with construction and operation of the proposed project to satisfy the requirements of the CEQA Guidelines. Following the project description, the contents of the air quality assessment of this report include an overview of the topic of air quality, a summary of air quality management regulations relevant to the proposed project, a discussion of the existing environmental setting, and the assessment of potential environmental impacts based on the Appendix G Environmental Checklist criteria for Air Quality. The GHG emissions assessment provides an overview of the atmospheric processes that make GHG emissions an environmental concern, a summary of the regulatory framework established to control GHG emissions and a brief discussion of GHG emissions trends in California, and finally analyzes the GHG emissions associated with implementation of the proposed project in the context of applicable regulations and the Appendix G Environmental Checklist criteria criteria. Impact determinations are provided for each environmental checklist item.

2.2 PROJECT DESCRIPTION

The proposed project includes a new 10,000 square foot gym at the Boyle Heights Sports Center located at 933 South Mott Street in the City of Los Angeles. The new gym will offer multi-use space for the Boyle Heights community. It will include a full-sized basketball court, staff offices for the City of Los Angeles Department of Recreation and Parks, equipment storage rooms, restrooms, a plaza for special gatherings, green space, pedestrian paths, and additional parking. Incorporating sustainable design principles and drought-resistant landscaping, the new facility will be certified as a Leadership in Energy and Environmental Design (LEED)-Net Zero (producing as much or more energy than it consumes) facility. The proposed project also includes an 8,700-square-foot surface parking lot.

The project site is currently occupied by two vacant dilapidated buildings situated along Whitter Boulevard, between Mott Street and Mathews Street. **Figure 2-1** shows the location of the project site. The adjacent land uses include commercial uses to the north, commercial and an automobile repair shop to the east, multi-family residential to the south and the Santa Isabel Catholic School/Church to the west.



Source: TAHA, 2018.

Boyle Heights Sports Center Gym
Air Quality and Greenhouse Gas Emissions Impact Study

TAHA 2018-003 LABOE

FIGURE 2-1
PROJECT LOCATION

3.0 AIR QUALITY

This section examines the degree to which the proposed project may result in changes to air quality on regional and local scales. This section also describes the characteristics and effects of air pollutants, the applicable regulatory framework, the existing air quality conditions, and methodology and significance thresholds in the proposed project area. This section assesses the potential significance of air pollutant emissions associated with construction and operation of the proposed project. Emissions are quantified in terms of pounds (lb/day) of pollutant emitted into the atmosphere on a daily basis. The concentration of a pollutant in ambient air is defined by the amount of air pollutant per volumetric unit of air, expressed in terms of parts-per-million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

3.1 AIR POLLUTANT CHARACTERISTICS AND EFFECTS

Air quality is characterized by ambient air concentrations of seven specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. These specific pollutants, known as "criteria air pollutants," are pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal ambient concentration criteria are known as the National Ambient Air Quality Standards (NAAQS), and the California ambient concentration criteria are referred to as the California Ambient Air Quality Standards (CAAQS). Federal criteria air pollutants include ground-level ozone (O_3), nitrogen oxides (NO_X), carbon monoxide (CO), sulfur oxides (SO_X), respirable particulate matter ten microns or less in diameter (PM_{10}), fine particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), and lead (Pb). The following descriptions of each criteria air pollutant and their health effects are based on information provided by the SCAQMD.[1]

3.1.1 Federal Criteria Air Pollutants

Ozone (O_3). O_3, a colorless gas with a sharp odor, is a highly reactive form of oxygen. High O_3 concentrations exist naturally in the stratosphere. However, it is also formed in the atmosphere when volatile organic compounds (VOC) and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight (also known as smog). The primary sources of VOC and NO_X, the components of O_3, are automobile exhaust and industrial sources. Some mixing of stratospheric O_3 downward through the troposphere to the earth's surface does occur; however, the extent of O_3 transport is limited.

The propensity of O_3 for reacting with organic materials causes it to be damaging to living cells and cause health effects. O_3 enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection. Individuals exercising outdoors, children and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for O_3 effects.

Nitrogen Dioxide (NO_2). NO_2 is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from nitrogen (N_2) and oxygen (O_2) under conditions of high temperature and pressure which are generally present during combustion of fuels (e.g., motor vehicles); NO reacts rapidly with the oxygen in air to form NO_2. NO_2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as NO_X. In the presence of sunlight, atmospheric NO_2 reacts and splits to form a NO molecule and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons.

[1]SCAQMD, *Final Program Environmental Impact Report for the 2016 AQMP*, May 2018.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California (fewer or no stoves). In healthy subjects, increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms and emergency room asthma visits.

Carbon Monoxide (CO). CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere and is produced by both natural processes and human activities. In remote areas far from human habitation, CO occurs in the atmosphere at an average background concentration of 0.04 ppm, primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Sulfur Dioxide (SO_2). SO_2 is a colorless gas with a sharp odor. It reacts in air to form sulfuric acid, which contributes to acid precipitation, and sulfates, which are components of particulate matter. Main sources of SO_2 include coal and oil used in power plants and industries. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of SO_2. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses, even after exposure to higher concentrations of SO_2.

Particulate Matter (PM_{10} and $PM_{2.5}$). Particles small enough to be inhaled into the deepest parts of the lung are of great concern to public health. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Emissions of $PM_{2.5}$ result from fuel combustion (e.g., motor vehicles, power generation and industrial facilities), residential fireplaces and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X, and VOC.

Respirable particles (PM_{10}) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM. A consistent correlation between elevated ambient fine particulate matter ($PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the

number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by $PM_{2.5}$ and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions, to school and kindergarten absences, to a decrease in respiratory function in normal children and to increased medication use in children and adults with asthma. Studies have also shown lung function growth in children is reduced with long-term exposure to PM. In addition to children, the elderly, and people with pre-existing respiratory and/or cardiovascular disease appear to be more susceptible to the effects of PM_{10} and $PM_{2.5}$.

Lead (Pb). Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric Pb over the past three decades. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death. There is no evidence to suggest that there are direct effects of Pb on the respiratory system.

3.1.2 State Criteria Air Pollutants

The State of California has established CAAQS for the following pollutants in addition to those that are regulated under the NAAQS.

Visibility-Reducing Particles. Deterioration of visibility is one of the most obvious manifestations of air pollution and plays a major role in the public's perception of air quality. Visibility reduction from air pollution is often due to the presence of sulfur and NO_X, as well as PM.

Sulfates (X-SO_4^{2-}). X-SO_4^{2-} are chemical compounds which contain the sulfate ion (SO_4^{2-}) and are part of the mixture of solid materials that comprise PM_{10}. Most of SO_X in the atmosphere are produced by oxidation of SO_2. Oxidation of SO_2 yields sulfur trioxide, which reacts with water to form sulfuric acid, which contributes to acid deposition. The reaction of sulfuric acid with basic substances such as ammonia yields SO_4^{2-}, a component of PM_{10} and $PM_{2.5}$. Both mortality and morbidity effects have been observed with an increase in ambient SO_4^{2-} concentrations. However, studies to separate the effects of SO_4^{2-} from the effects of other pollutants have generally not been successful. Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure.

Hydrogen Sulfide (H_2S). H_2S is a colorless, flammable, poisonous compound having a characteristic rotten-egg odor. It is used as a reagent and as an intermediate in the preparation of other reduced sulfur compounds. It is also a by-product of the desulfurization processes in the oil and gas industries and rayon production, sewage treatment, and leather tanning. Geothermal power plants, petroleum production and refining, and sewer gas are specific sources of H_2S in California. High H_2S exposure has been documented as a cause of sudden death in the workplace.

Vinyl Chloride. Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified as a known carcinogen by the American Conference of Governmental Industrial Hygienists and the International Agency for Research on Cancer. At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is

stored at cooler temperatures as a liquid. Due to the hazardous nature of vinyl chloride to human health, there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product.

Vinyl chloride is an important industrial chemical chiefly used to produce polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles. Vinyl chloride is not only used to make PVC products, but it is also a natural degradation product of chlorinated industrial solvents (e.g., perchloroethylene, trichloroethene, etc.). Vinyl chloride emissions are historically associated primarily with landfills and sites contaminated with chlorinated solvents.

3.1.3 Air Toxics

Air toxics are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. Air toxics are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Air toxics include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources. According to the 2006 California Almanac of Emissions and Air Quality, the majority of the estimated health risks from air toxics can be attributed to relatively few compounds, the most important being PM from the exhaust of diesel-fueled engines (diesel PM). Diesel PM differs from other air toxics in that it is a complex mixture of hundreds of substances rather than a single substance.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, and some neurological effects, such as lightheadedness. Acute exposure may also elicit a cough or nausea, as well as exacerbate asthma. Chronic exposure to diesel PM in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel PM is a likely carcinogen. Human epidemiological studies have demonstrated an association between diesel PM exposure and increased lung cancer rates in occupational settings.

3.2 REGULATORY FRAMEWORK

This portion of the air quality section provides brief discussions of the relevant regulations, policies, and programs that have been adopted by federal, state, and local agencies to protect air quality and public health.

Federal

The Clean Air Act (CAA) governs air quality at the national level and the USEPA is responsible for enforcing the regulations provided in the CAA. Under the CAA, the USEPA is authorized to establish NAAQS that set protective limits on concentrations of air pollutants in ambient air. Enforcement of the NAAQS is required under the 1977 CAA and subsequent amendments. As required by the CAA, NAAQS have been established for the seven criteria air pollutants: O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb. These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. The CAA grants the USEPA authority to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS concentrations have been met on a regional scale relying upon air monitoring data from the most recent three-year period. The NAAQS are summarized in **Table 3-1**.

TABLE 3-1: AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS DESIGNATIONS

Pollutant	Averaging Period	California		Federal	
		Standards (CAAQS)	Attainment Status	Standards (NAAQS)	Attainment Status
Ozone (O_3)	1-Hour Average	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-Hour Average	0.070 ppm (137 µg/m^3)	Nonattainment	0.070 ppm (137 µg/m^3)	Pending – Nonattainment
Carbon Monoxide (CO)	1-Hour Average	20 ppm (23 mg/m^3)	Attainment	35.0 ppm (40 mg/m^3)	Attainment
	8-Hour Average	9.0 ppm (10 mg/m^3)	Attainment	9.0 ppm (10 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	1-Hour Average	0.18 ppm (338 µg/m^3)	Attainment	0.10 ppm (188 µg/m^3)	Attainment
	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
Sulfur Dioxide (SO_2)	1-Hour Average	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Pending – Attainment
	24-Hour Average	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
Respirable Particulate Matter (PM_{10})	24-Hour Average	50 µg/m^3	Nonattainment	150 µg/m^3	Attainment (Maintenance)
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-Hour Average	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	12.0 µg/m^3	Nonattainment
Lead (Pb)	30-day Average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	1.5 µg/m^3	Unclassified/ Attainment
	Rolling 3-Month Average	--	--	0.15 µg/m^3	Unclassified/ Attainment
Sulfates	24-Hour Average	25 µg/m^3	Attainment	**No Federal Standards**	
Hydrogen Sulfide	1-Hour Average	0.03 ppm (42 µg/m^3)	Attainment		
Vinyl Chloride	24-Hour Average	0.01 ppm (26 µg/m^3)	Attainment		

ppm = Parts per million; µg/m^3 = micrograms per cubic meter.
SOURCE: SCAQMD, *NAAQS and CAAQS Attainment Status for South Coast Air Basin*, February 2016.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

State

Air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by the California Air Resources Board (CARB) at the state level and by the air quality management districts at the regional and local levels. The CCAA requires all areas of the state to achieve and maintain the CAAQS by the earliest feasible date, which is determined in the most recent SIP based on existing emissions and reasonably foreseeable control measures that will be implemented in the future. The CAAQS are also summarized in **Table 3-1**, which also presents the attainment status designations for the Los Angeles County portion of the SCAB. The CARB's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, the CARB is required to prioritize the identification and control of air toxics emissions. In selecting substances for review, the CARB must consider criteria relating to the risk of harm to public health, such as amount or potential amount of emissions, manner of and exposure to usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community.

Regional

The 1977 Lewis Air Quality Management Act established the SCAQMD in order to coordinate air quality planning efforts throughout Southern California. The SCAQMD has jurisdiction over a total area of 10,743 square miles, consisting of the SCAB—which comprises 6,745 square miles including Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties—and the Riverside County portion of the Salton Sea and Mojave Desert Air Basins. The proposed project would be located in the neighborhood of Reseda, which is situated in the SCAB portion of Los Angeles County and is within the jurisdiction of the SCAQMD.

The SCAQMD is tasked with preparing regional programs and policies designed to improve air quality within the SCAB, which are assessed and published in the form of the Air Quality Management Plan (AQMP). The AQMP is updated every four years to evaluate the effectiveness of the adopted programs and policies and to forecast attainment dates for nonattainment pollutants to support the SIP based on measured regional air quality and anticipated implementation of new technologies and emissions reductions. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in GHG emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard. The 2016 AQMP acknowledged that the most significant air quality challenge in the SCAB is the reduction of NO_X emissions sufficient to meet the upcoming ozone standard deadlines. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approach attainment deadlines are met, that public health is protected to the

maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date.

The 2016 AQMP includes an element that is related to transportation and sustainable communities planning. Pursuant to California Health and Safety Code Section 40450, the Southern California Association of Governments (SCAG)—the Metropolitan Planning Organization (MPO) for Southern California—has the responsibility of preparing and approving the portions of the 2016 AQMP relating to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. The analysis incorporated into the 2016 AQMP is based on the forecasts contained within the SCAG 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Land use strategies outlined in the 2016–2040 RTP/SCS that will contribute to regional air quality improvements include: focusing new growth around transit/high quality transit areas (HQTAs), planning for growth around livable corridors, providing more options for short trips/neighborhood mobility areas, and supporting local sustainability planning.

The SCAQMD has also established various rules to manage and improve air quality in the SCAB. The project proponent shall comply with all applicable SCAQMD Rules and Regulations pertaining to construction activities, including, but not limited to:

- Rule 402 (Nuisance) states that a person should not emit air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- Rule 403 (Fugitive Dust) controls fugitive dust through various requirements including, but not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, limiting vehicle speeds on unpaved roads to 15 miles per hour, and maintaining effective cover over exposed areas. Rule 403 also prohibits the release of fugitive dust emissions from any active operation, open storage piles, or disturbed surface area beyond the property line of the emission source and prohibits particulate matter deposits on public roadways.

3.3 EXISTING ENVIRONMENTAL SETTING

3.3.1 Air Pollution Climatology

The project site is located within the SCAB, which is subject to some of the worst air pollution in the nation due to the immense magnitude of emissions sources and the combination of topography, low mean atmospheric mixing height, and abundant sunshine. Although the SCAB has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The mountains and hills surrounding the SCAB contribute to the variation of rainfall, temperature, and winds throughout the region.

During the spring and early summer, pollution produced during any one day is typically blown out of the SCAB through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the SCAB is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low

inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants become more concentrated in urbanized areas with pollution sources of greater magnitude.

3.3.2 Local Climate Conditions

The mountains and hills within the SCAB contribute to the variation of rainfall, temperature, and winds throughout the region. The nearest meteorological station that collects data describing local climate conditions in the proposed project area is at the University of Southern California (USC) campus, which is situated approximately three miles west of the proposed project. The USC campus meteorological station continuously measures and records temperature and precipitation levels throughout the year. The annual average temperature in the proposed project area is 65.4 degrees Fahrenheit (°F).[2] The project site and surrounding area experience a mean winter temperature of 58.9°F and a mean summer temperature of 72.6°F.[3] Within the project site and its vicinity, the average wind speed is approximately 2.8 miles per hour from the west.[4]

According to the USC campus meteorological station data, total precipitation in the proposed project area averages approximately 14.9 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages 2.8 inches during the winter, 0.75 inches during the spring, 1.0 inch during the fall, and less than 0.1 inch during the summer.[5]

3.3.3 Local Air Quality Conditions

Air quality within the SCAB region is characterized by concentrations of air pollutants measured at 40 monitoring stations located throughout the SCAQMD jurisdiction. The SCAB is divided geographically into 38 source receptors areas (SRAs), each of which contains an air quality monitoring station. The SRA boundaries were drawn based on the local emission inventories and surrounding topography. The proposed project is located in SRA 1 (Central Los Angeles). The monitoring station that collects ambient air quality data in SRA 1 is the Los Angeles-North Main Street Monitoring Station located at 1630 North Main Street, Los Angeles, CA 90012 with data collected up to year 2016.[6] From the past five years of collected data, ozone and $PM_{2.5}$ pollutants have exceeded state and federal standards and PM_{10} pollutants have only exceeded state standards.[7]

3.3.4 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The CARB has identified the following groups who are most likely to experience adverse health effects due to exposure to air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, land uses that constitute sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and

[2]Western Regional Climate Center, *Historical Climate Information*, http://www.wrrc.dri.edu, accessed on May 15, 2018.
[3]*Ibid*.
[4]SCAQMD, *Meteorological Data*, http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod, accessed on May 15, 2018.
[5]Western Regional Climate Center, *Historical Climate Information*, http://www.wrrc.dri.edu, accessed on May 15, 2018.
[6]CARB, *Quality Assurance Air Monitoring Site Information*, accessed May 17, 2018.
[7]CARB, Air Quality Data Statistics, *Top 4 Summary*, accessed May 17, 2018.

retirement homes. As shown in **Figure 3-1**, the sensitive land uses in closest proximity to the project site include the Santa Isabel Catholic School/Church play yard located approximately 100 feet to the west, residences located approximately 150 feet to the southeast, and residences located approximately 200 feet to the north.

3.4 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

3.4.1 Methodology

Implementation of the proposed project will involve the construction and operation of a gym with an adjacent surface parking lot. The air quality analysis conducted for the proposed project is consistent with the methods described in the SCAQMD *CEQA Air Quality Handbook* (1993 edition), as well as the updates to the *CEQA Air Quality Handbook*, as provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.1) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects under CEQA. The detailed CalEEMod output files disclosing estimated air pollutant emissions can be found in the **Appendix**.

Sources of air pollutant emissions associated with construction activities include off-road equipment exhaust, fugitive dust particulate matter (PM_{10} and $PM_{2.5}$) from earthmoving activities, and vehicle trips to and from the project site for construction workers and material delivery and hauling disposal of demolition debris. Construction of the proposed project is anticipated to take a total of approximately 68 weeks. Existing structures on the project site include two vacant dilapidated buildings, with asphalt paving that would be removed prior to construction activities. Demolition of the two vacant buildings is anticipated to last approximately three and a half weeks commencing in March 2021. Subsequently, construction of the proposed project will involve site preparation and grading of the project site which will last approximately four weeks, followed by an approximate 51-week facility construction phase. Paving of the parking lots and finishing of the building structures will occur during the final eight weeks of construction. The CalEEMod software was utilized to quantify estimates of maximum daily air pollutant emissions from construction equipment use and vehicular travel.

The SCAQMD recommends that air pollutant emissions generated by construction activities be assessed for potentially significant air quality impacts at regional and local scales. Regional emissions include air pollutant emissions from all sources associated with construction activities, while localized emissions refer specifically to those emissions generated by sources on the project site. Maximum daily emissions were quantified for each construction activity based on the number and type of equipment required and daily hours of use, in addition to vehicle trips to and from the project site. The CalEEMod model provides regionally-specific default values for daily equipment usage rates and worker trip lengths, as well as emissions factors for heavy duty equipment and passenger vehicles that have been derived by the CARB through extensive air quality investigations and surveys.

Localized air pollutant emissions from construction activities were analyzed in accordance with the SCAQMD Localized Significance Threshold (LST) methodology. The LST methodology was devised to prevent small-scale hot spot concentrations of air pollutants from exceeding ambient air quality standards at nearby sensitive receptors. The project site is located in the Central Los Angeles SRA, which is identified as SRA 1 within the SCAQMD jurisdiction.

Source: TAHA, 2018.

taha
environmental planners

Boyle Heights Sports Center Gym
Air Quality and Greenhouse Gas Emissions Impact Study

TAHA 2018-003 LABOE

FIGURE 3-1
SENSITIVE RECEPTORS

The LST methodology document contains SRA-specific values for maximum allowable on-site emissions (i.e., construction equipment and fugitive dust) during construction based on locally monitored air quality, the size of maximum daily disturbed area, and the proximity of sensitive receptors. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values for a one-acre project site having sensitive receptors within 80 feet (approximately 25 meters) of the project site boundary in SRA 1; the applicable LST values are shown in **Table 3-2** below.

The CalEEMod software also generates estimates of air pollutant emissions that will be generated during future operation of the proposed project. The primary sources of operational air pollutant emissions are stationary sources associated with VOC off-gassing from the paved parking lot and vehicle trips by patrons to and from the project site. The transportation study for the proposed project determined that there would be approximately 288 daily trips per day.

3.4.2 CEQA Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on the environment related to air quality if it would:

a) Conflict with or obstruct implementation of the applicable air quality plan;
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
d) Expose sensitive receptors to substantial pollutant concentrations; or
e) Create objectionable odors affecting a substantial number of people.

The SCAQMD published a *CEQA Air Quality Handbook* to guide air quality assessments for CEQA projects within its jurisdiction. SCAQMD methodologies recommend that air pollutant emissions be analyzed in both regional and local contexts. Regional emissions refer to all emissions that would be associated with construction and operation of a project, while localized emissions refer to only those emissions that would be produced by sources located on the project site. To assist in the assessment of air pollutant emissions under impact criteria a), b), and c) above, the SCAQMD established maximum daily threshold values for air pollutant emissions from CEQA projects within the SCAB. The mass daily thresholds were derived using regional emissions modeling techniques to prevent the occurrence of air quality violations that would obstruct implementation of the regional AQMP and hinder efforts to improve regional air quality.

Table 3-2 presents the SCAQMD mass daily air quality significance thresholds for regional and localized emissions of regulated pollutants resulting from construction activities.[8] The localized air quality significance thresholds are specific to SRA 1 for a one-acre construction site with sensitive receptors within 80 feet (approximately 25 meters) and were obtained from the SCAQMD LST guidance document.[9,10] The LST values were derived from regionally-specific modeling of pollutant emissions and are designed to prevent localized pollutant concentrations from exceeding applicable ambient air quality standards near construction sites. Also presented in **Table 3-2** are the operational mass daily thresholds applicable within the SCAQMD jurisdiction.

[8]SCAQMD, *SCAQMD Air Quality Significance Thresholds – Mass Daily Thresholds*, March 2015.
[9]SCAQMD, *Final Localized Significance Threshold Methodology Appendix C Mass Rate Lookup Tables*, October 21, 2009.
[10]SCAQMD, *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, 2008.

TABLE 3-2: SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS – MASS DAILY EMISSIONS						
Pollutant	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
CONSTRUCTION						
Regional Threshold (lb/day)	75	100	550	150	150	55
Localized Threshold (lb/day)	--	74	680	--	5	3
OPERATION						
Regional Threshold (lb/day)	55	55	550	150	150	55
Note: LST values selected for 1-acre daily disturbance based on equipment inventory and 25-meter receptor distance in SRA 1. **SOURCE**: SCAQMD, 2015.						

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis

Construction. According to the SCAQMD, there are two key indicators of consistency with the applicable air quality plan: 1) whether the proposed project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plan; and 2) whether the proposed project would cause the project area to exceed the forecasted growth incorporated into the applicable air quality plan.

The first consistency criterion is related to violations of the CAAQS and NAAQS. Construction emissions associated with development of the proposed project would be temporary in nature and would not have a long-term impact on the region's ability to meet California and federal air quality standards. As described under the impact discussion for **Criterion 3.5.2** (Section 3.5.2), maximum daily emissions of air pollutants from construction activities would not exceed regional or localized significance threshold values. In addition, construction activities associated with the proposed project would comply with State and local strategies designed to control air pollution, such as SCAQMD Rules 402 and 403. By adhering to the stringent SCAQMD rules and regulations pertaining to fugitive dust control and maintaining maximum daily emissions below the SCAQMD mass daily thresholds, project construction activities would be consistent with the goals and objectives of the applicable air quality plan to improve air quality in the SCAB and would not result in an air quality violation.

The second consistency criterion requires that the proposed project not exceed the assumptions incorporated into the applicable air quality plan. The most applicable air quality plans for the proposed project are the 2016 AQMP, which is based on the SCAG 2016–2040 RTP/SCS. A large-scale individual project could potentially exceed assumptions in the air quality plan if it resulted in a zoning change that resulted in disproportionate growth relative to the land use types analyzed in the air quality plan. However, the air quality plan focuses on long-term, operational sources of air pollutants that contribute to the regional emission inventory. Short-term, temporary emissions associated with construction activities would not conflict with the air quality plan so long as no SCAQMD air quality mass daily thresholds of significance are exceeded. As shown in **Table 3-3** under **Criterion 3.5.2**, construction activities would not generate daily air pollutant emissions of sufficient magnitude to exceed any applicable threshold of significance and impacts under **Criterion 3.5.1** associated with construction activities would be less than significant for the proposed project, and no mitigation is required.

TABLE 3-3: ESTIMATED DAILY CONSTRUCTION EMISSIONS

Phase	Daily Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
DEMOLITION						
On-Site Emissions	2.7	28.6	16.3	<0.1	1.3	1.2
Off-Site Emissions	0.2	5.5	1.9	<0.1	0.5	0.2
Total	***3.0***	***34.1***	***18.2***	***<0.1***	***1.8***	***1.3***
SITE PREPARATION						
On-Site Emissions	0.7	7.7	3.2	<0.1	0.3	0.2
Off-Site Emissions	0.1	1.1	0.9	<0.1	0.3	0.1
Total	***0.8***	***8.9***	***4.1***	***<0.1***	***0.5***	***0.3***
SITE GRADING						
On-Site Emissions	2.2	23.3	14.8	<0.1	3.7	2.3
Off-Site Emissions	0.2	5.5	1.9	<0.1	0.5	0.2
Total	***2.5***	***28.8***	***16.8***	***<0.1***	***4.2***	***2.5***
BUILDING CONSTRUCTION						
On-Site Emissions	1.6	17.2	16.7	<0.1	0.8	0.7
Off-Site Emissions	0.1	0.6	0.9	<0.1	0.3	0.1
Total	***1.7***	***17.8***	***17.7***	***<0.1***	***1.0***	***0.8***
PAVING + ARCHITECTURAL COATING						
On-Site Emissions	2.5	7.3	10.4	<0.1	0.3	0.3
Off-Site Emissions	0.1	1.0	0.7	<0.1	0.2	0.1
Total	***2.6***	***8.3***	***11.1***	***<0.1***	***0.5***	***0.4***
REGIONAL ANALYSIS						
Maximum Regional Daily Emissions	**3.0**	**34.1**	**18.2**	**<0.1**	**4.2**	**2.5**
Regional Significance Threshold	75	100	550	150	150	55
Exceed Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
LOCALIZED ANALYSIS						
Maximum Localized Daily Emissions	**--**	**28.6**	**16.7**	**--**	**3.7**	**2.3**
Localized Significance Threshold	--	74	680	--	5	3
Exceed Localized Threshold?	**--**	**No**	**No**	**--**	**No**	**No**

Note: Emissions modeling files can be found in the **Appendix**.
SOURCE: TAHA, 2019.

Operation. Implementation of the proposed project would introduce a new public recreation facility to the community of Boyle Heights, which would generate a maximum of approximately 288 daily vehicle trips in the project area. Stationary source emissions associated with the proposed project would be minimal, as shown in **Table 3-4** under **Criterion 3.5.2**. The emissions modeling results presented in **Table 3-4** demonstrate that operation of the proposed project would not exceed any applicable SCAQMD threshold. Furthermore, implementation of the proposed project would not introduce any new residential or commercial land uses to the project area, and therefore population and employment projections for the region would not be affected. The proposed project would not have any potential to result in growth that would exceed the projections incorporated into the AQMP or the SCAG 2016–2040 RTP/SCS. Therefore, the proposed project would result in a less than significant impact related to operational air pollutant emissions under **Criterion 3.5.1**, and no mitigation is required.

3.5.2 Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Impact Analysis

Construction. Construction of the proposed project would have a potentially significant air quality impact under this criterion if maximum daily emissions of any regulated pollutant exceeded the applicable SCAQMD air quality significance thresholds presented in **Table 3-2**. Daily emissions of regulated pollutants were quantified following the methodology described in Section 3.4.1 for each phase of construction activity. The estimate of fugitive dust emissions account for Rule 403 compliance. Examples of Rule 403 compliance include: a) All exposed areas will be frequently watered to reduce the generation of dust, and b) Vehicle speed of construction vehicles/equipment in exposed areas (i.e., unpaved access) shall be reduced to reduce the generation of dust.

Table 3-3 shows a comparison of the maximum daily emissions during each phase of construction to the applicable SCAQMD air quality significance thresholds. Maximum daily emissions of air pollutants that would be generated by proposed project construction activities would not exceed any applicable regional or localized threshold values. Impacts would be less than significant and no mitigation is required.

Operation. Implementation of the proposed project would introduce approximately 288 daily vehicle trips to the project area and marginally increase area source emissions. The new facility will be certified as a LEED-Net Zero (producing as much or more energy than it consumes) facility. Therefore, electricity-related emissions have been excluded from the emissions summary. The results of operational emissions modeling are presented in **Table 3-4**. Maximum daily emissions of all regulated pollutants would remain substantially below the applicable SCAQMD operational mass daily thresholds. Therefore, implementation of the proposed project would result in a less than significant impact related to operational air pollutant emissions, and no mitigation is required.

TABLE 3-4: ESTIMATED DAILY OPERATIONAL EMISSIONS

	Daily Emissions (Pounds Per Day)					
Source Category	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	0.2	<0.1	<0.1	0	<0.1	<0.1
Energy (Natural Gas)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	0.5	1.9	5.7	<0.1	1.9	0.5
ANALYSIS						
Regional Total	**0.7**	**2.0**	**5.7**	**<0.1**	**2.1**	**0.5**
Regional Significance Threshold	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

SOURCE: TAHA, 2018.

3.5.3 Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Impact Analysis

Construction. The SCAB is designated as nonattainment of the CAAQS and NAAQS for O_3, PM_{10}, and $PM_{2.5}$. Therefore, there is an ongoing regional cumulative impact associated with these air pollutants. Taking into account the existing environmental conditions, the SCAQMD propagated guidance that an individual project can emit allowable quantities of these pollutants on a regional scale without significantly contributing to the cumulative impacts.

As discussed above and shown in **Table 3-3**, air pollutant emissions associated with construction of the proposed project would not exceed any applicable SCAQMD air quality thresholds of significance. Despite the region being in nonattainment of the ambient air quality standards for O_3, PM_{10}, and $PM_{2.5}$, the SCAQMD does not consider individual project emissions of lesser magnitude than the mass daily thresholds to be cumulatively considerable. Therefore, the proposed project would not result in a cumulatively considerable net increase of nonattainment pollutants and the impact would be less than significant, no mitigation is required.

Operation. Implementation of the proposed project would create a new public recreation facility to the community of Boyle Heights, and operational air pollutant emissions would be substantially below the applicable SCAQMD mass daily thresholds. Operation of the gym would not introduce a substantial source of long-term O_3 precursor emission or particulate matter emissions for which the SCAB is currently designated nonattainment. As discussed above, the SCAQMD has propagated guidance that the project-specific mass daily thresholds may be used as a reference metric to evaluate the potential for cumulatively considerable net increases in nonattainment pollutants. If the SCAQMD mass daily thresholds were exceeded, further analysis would be warranted to ensure that emissions would not be cumulatively considerable. However, as shown in **Table 3-4**, operation of the proposed project would not exceed the SCAQMD mass daily threshold for VOC, NO_X, or particulate matter. Furthermore, the new facility will be certified as a LEED-Net Zero (producing as much or more energy than it consumes) facility. Therefore, implementation of the proposed project would result in a less than significant impact related to operational air pollutant emissions.

3.5.4 Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis

Construction. The SCAQMD devised its LST values to prevent the occurrence of localized hot spots of criteria pollutant concentrations at sensitive receptor locations surrounding the project site. The LST values were determined using emissions modeling based on ambient air quality measured throughout the SCAB. If maximum daily emissions remain below the LST values during construction activities, it is highly unlikely that air pollutant concentrations in ambient air would reach substantial levels sufficient to create public health concerns for sensitive receptors. As shown in **Table 3-3**, maximum daily emissions of criteria pollutants and O_3 precursors from sources located on the project site would not exceed any applicable LST values. Therefore, construction of the proposed project would not result in exposure of sensitive receptors to substantial concentrations of criteria pollutants.

With regards to emissions of air toxics, carcinogenic risks, and non-carcinogenic hazards, the use of heavy duty construction equipment and haul trucks during construction activities would release diesel PM to the atmosphere through exhaust emissions. Diesel PM is a known carcinogen, and extended exposure to elevated concentrations of diesel PM can increase excess cancer risks in individuals. However, carcinogenic risks are typically assessed over timescales of several years to decades, as the carcinogenic dose response is cumulative in nature. Short term exposures to diesel PM would have to involve extremely high concentrations in order to exceed the SCAQMD Air Quality Significance Threshold of 10 excess cancers per million.

Over the course of construction activities, average diesel PM emissions from on-site equipment would be approximately 0.75 pounds per day on construction work days, and 0.54 pounds per day when accounting for weekends. Therefore, it is highly unlikely that diesel PM concentrations would be of any public health concern during the 22-month construction period, and diesel PM emissions would cease upon completion of construction activities. Therefore, the proposed project would result in a less than significant impact related to construction toxic air contaminants.

Operation. The proposed project would introduce a new recreational facility to the project area. The proposed project does not include an industrial component that would constitute a new substantial stationary source of operational air pollutant emissions, nor does it include a land use that would generate a substantial number of heavy duty truck trips within the region. There would be no substantial source of air toxic emissions. Additionally, as shown in **Table 3-4**, daily emissions of criteria pollutants would remain far below the applicable SCAQMD Air Quality Significance Thresholds. Therefore, the proposed project would result in a less than significant impact related to operational toxic air contaminants.

3.5.5 Would the proposed project create objectionable odors affecting a substantial number of people?

Impact Analysis

Construction. A significant impact would occur if construction or operation of the proposed project would result in the creation of nuisance odors that would be noxious to a substantial number of people. Potential sources that may produce objectionable odors during construction activities include equipment exhaust, application of asphalt and architectural coatings, and other interior and exterior finishes. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site, and would be temporary in nature and would not persist beyond the termination of construction activities. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. In addition, as construction-related emissions dissipate away from the construction area, the odors associated with these emissions would also decrease and would be quickly diluted. Therefore, the proposed project would result in a less than significant impact related to construction odors.

Operation. The proposed project would introduce a new recreational facility to the Project area. According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The project site would not be developed with land uses that are typically associated with odor complaints. On-site trash receptacles would have the potential to create adverse odors. Trash receptacles would be located and maintained in a manner that promotes odor control in accordance with the Los Angeles Clean Streets program and no adverse odor impacts are

anticipated from these types of land uses. Therefore, the proposed project would result in a less than significant impact related to operational odors.

3.6 CUMULATIVE IMPACTS

Refer to **Criterion 3.5-3**, above, for a discussion of the cumulative impacts. The SCAQMD has indicated that the project-level air quality significance thresholds may be used as an indicator to determine if project emissions contribute considerably to an existing cumulative impact. As discussed in **Criterion 3.5-2**, air pollutant emissions associated with construction and operation of the proposed project would not exceed any applicable SCAQMD regional or localized air quality thresholds of significance. Therefore, implementation of the proposed project would not contribute to a cumulatively considerable net increase of criteria pollutants or O_3 precursors. Furthermore, the new facility will be certified as a LEED-Net Zero (producing as much or more energy than it consumes) facility. Cumulative impacts would be less than significant and no mitigation is required.

4.0 GREENHOUSE GAS

The purpose of this section is to discuss describe how the proposed project would affect regional GHG emissions. GHG emissions refer to airborne pollutants that are generally believed to affect global climate conditions. These pollutants have the effect of trapping heat in the atmosphere, thereby altering weather patterns and climatic conditions.

4.1 POLLUTANTS AND EFFECTS

GHG emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60°F. Without the natural greenhouse effect, the Earth's surface would be about 61°F cooler.[11]

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass), and water vapor. CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as CO_2e. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. **Table 4-1** shows various GWP.

TABLE 4-1: GLOBAL WARMING POTENTIAL FOR VARIOUS GREENHOUSE GASES

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide (CO_2)	--	1	1
Methane (CH_4)	12	21	25
Nitrous Oxide (N_2O)	114	310	298
Nitrogen Trifluoride	740	Unknown	17,200
Sulfur Hexafluoride (SF_6)	3,200	23,900	22,800
Perfluorocarbons (PFCs)	2,600-50,000	6,500-9,200	7,390-12,200
Hydrofluorocarbons (HFCs)	1-270	140-11,700	124-14,800

SOURCE: CARB, *Global Warming Potentials*, https://www.arb.ca.gov/cc/inventory/background/gwp.htm, accessed on May 21, 2018.

4.2 REGULATORY FRAMEWORK

In response to growing scientific and political concern with global climate change, a series of federal and state laws have been adopted to reduce GHG emissions. The following provides a brief summary of GHG regulations and policies. This is a not a n exhaustive list of all regulations and policies.

[11]California Environmental Protection Agency Climate Action Team, *Climate Action Report to Governor Schwarzenegger and the California Legislator*, March 2006.

Federal

- ***Massachusetts vs. Environmental Protection Agency, 127 S. Ct. 1438 (2007)*** - A supreme court ruling that CO_2 and other GHGs are pollutants under the CAA.

- **Energy Independence and Security Act** - This act set a Renewable Fuel Standard of 36 billion gallons of biofuel usage by 2022, increases Corporate Average Fuel Economy Standards of setting 35 miles per gallon of cars and light trucks by 2020 and sets new standards for lighting and residential and commercial appliance equipment.

- **National Fuel Efficiency Policy and Fuel Economy Standards** - This 2009 policy was designed to increase fuel economy by more than five percent by 2016 starting with model year 2012 cars and trucks.

- **Heavy-Duty Vehicle Program** – This 2011 program established the first fuel efficiency requirements for medium- and heavy-duty vehicles beginning with model year 2014.

State

- **Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24 of the California Code of Regulations)** – Title 24 standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings.

- **California Green Building Code** - Also referred to as CalGreen, lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through improved efficiency and process improvements.

- **Senate Bill 1078 (SB 1078), Senate Bill 107 (SB 107), and Executive Order (E.O.) S-14-08 (Renewables Portfolio Standard)** - Signed on September 12, 2002, SB 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. SB 107, signed on September 26, 2006 changed the due date for this goal from 2017 to 2010, which was achieved by the state. On November 17, 2008, E.O. S-14-08, which established a Renewables Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

- **Executive Order (E.O.) S-3-05** - E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

- **Assembly Bill 32** - The California Global Warming Solutions Act of 2006, also known as Assembly Bill 32, was signed into law. Assembly Bill 32 focuses on reducing GHG emissions in California and requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020. The 2020 target reductions were estimated to be 174 million metric tons of CO_2e. In November 2017 CARB adopted the final 2017 Scoping Plan: The Strategy for Achieving California's 2030 GHG target (2017 Scoping Plan). The 2017 Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals.

- **Senate Bill 375 (SB 375)** - Provides a means for achieving Assembly Bill 32 goals through the reduction in emissions by cars and light trucks. SB 375 requires Regional Transportation Plans (RTPs) prepared by Metropolitan Planning Organizations (MPOs) to include Sustainable Communities Strategies (SCSs).

- **Senate Bill 743 (SB 743)** - Encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT), which contribute to GHG emissions, as required by Assembly Bill 32.

- **Executive Order (E.O) B-30-15** - This policy set a goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. The E.O. establishes GHG emissions reduction targets to reduce emissions to 80 percent below 1990 levels by 2050 and sets an interim target of emissions reductions for 2030 as being necessary to guide regulatory policy and investments in California and put California on the most cost-effective path for long-term emissions reductions.

- **Senate Bill 32 (SB 32)** – This bill required a commitment to reducing statewide GHG emissions by 2020 to 1990 levels and by 2030 to 40 percent less than 1990 levels.

Regional

- **Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS)** - SCAG is the MPO for the six-county region that includes Los Angeles, Orange, Riverside, Ventura, San Bernardino and Imperial counties. The 2016-2040 RTP/SCS includes commitments to reduce emissions from transportation sources to comply with SB 375. Goals and policies included in the 2016-2040 RTP/SCS to reduce air pollution consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling).

Local

- **GreenLA Climate Action Plan** - The City of Los Angeles has issued guidance promoting sustainable development to reduce GHG emissions citywide in the form of a Climate Action Plan. The objective of GreenLA is to reduce GHG emissions 35 percent below 1990 levels by 2030.

- **ClimateLA** - In order to provide detailed information on action items discussed in GreenLA, the City published an implementation document titled ClimateLA. ClimateLA presents the existing GHG inventory for the City, describes enforceable GHG reduction requirements, provides mechanisms to monitor and evaluate progress, and includes mechanisms that allow the plan to be revised in order to meet targets. By 2030, the plan aims to reduce GHG emissions by 35 percent from 1990 levels which were estimated to be approximately 54.1 million metric tons.

- **Sustainable City pLAn** - The pLAn is a roadmap to reducing GHG emissions by 45 percent by 2025, 60 percent by 2035, and 80 percent by 2050, all against a 1990 baseline.

- **Green Building Program** - The purpose of the City's Green Building Program is to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional, and global ecosystems. The program consists of a Standard of Sustainability and Standard of Sustainable Excellence.

- **Los Angeles Green Building Code** - The Green Building Code is applicable to new buildings and alterations with building valuations over $200,000 (residential and non-residential). The Green Building Code is based on CalGreen and developed to reduce energy use, water use, and waste.

- **Existing Buildings Energy and Water Efficiency Ordinance** - This Ordinance is designed to facilitate the comparison of buildings' energy and water consumption, and reduce building operating costs, leading to reduced GHG emissions.

4.3 EXISTING ENVIRONMENTAL SETTING

GHGs are the result of both natural and human-influenced activities. Volcanic activity, forest fires, decomposition, industrial processes, landfills, consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. Without human activity, the Earth would maintain an approximate, but varied, balance between the emission of GHGs into the atmosphere and the storage of GHG in oceans and terrestrial ecosystems. Increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) has contributed to a rapid increase in atmospheric levels of GHGs over the last 150 years.

CARB has prepared a statewide emissions inventory covering 2000 to 2015, which demonstrates that GHG emissions have decreased by 7.9 percent over that period.[12] Emissions in 2014 from the transportation sector, which represents California's largest source of GHG emissions and contributed 37 percent of total annual emissions, declined marginally relative to 2011 even while the economy and population continued to grow over that three year time period.[13] The long-term direction of transportation-related GHG emissions is another clear trend, with a 13 percent drop over the past ten years. **Table 4-2** shows GHG emissions from 2006 to 2015 in California.

TABLE 4-2: CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY TREND

Sector	CO_2e Emissions (Million Metric Tons)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transportation	184	184	173	166	163	160	159	158	160	165
Industrial	93	90	90	87	91	91	91	93	94	92
Electric Power	105	114	120	101	90	88	95	90	88	84
Commercial and Residential	43	43	43	44	45	45	43	43	37	38
Agriculture	36	36	36	34	35	35	36	35	36	35
High Global Warming Potential	10	11	12	12	14	15	16	17	18	19
Recycling and Waste	8	8	8	8	8	8	8	8	9	9
Emissions Total	**479**	**486**	**483**	**453**	**446**	**442**	**445**	**445**	**442**	**440**

SOURCE: CARB, *California Greenhouse Gas Inventory 2000-2015*, June 6, 2017.

4.4 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

4.4.1 Methodology

GHG emissions that will be generated by the proposed project were estimated using CalEEMod, as recommended by the SCAQMD. CalEEMod quantifies GHG emissions from construction activities and future operation of projects. Sources of GHG emissions during project construction will include heavy-duty off-road diesel equipment and vehicular travel to and from the project site. Sources of GHG emissions during project operation will include employee and delivery vehicular travel, natural gas demand, water use, and waste generation. In accordance with SCAQMD methodology, the total amount of GHG emissions that would be generated by construction of the proposed project was amortized over a 30-year operational period to represent long-term impacts.

[12]CARB, *California Greenhouse Gas Inventory for 2000-2015 – by Category as Defined in the 2008 Scoping Plan,* June 6, 2017.

[13]*Ibid.*

4.4.2 CEQA Significance Criteria

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to GHG if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

The CEQA Guidelines require lead agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guideline allows lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold. Neither the City nor the SCAQMD has officially adopted a quantitative threshold value for determining the significance of GHG emissions that will be generated by projects under CEQA. The SCAQMD published the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* in October 2008.[14] The document evaluated the analyses of the California Air Pollution Control Officers Associations (CAPCOA) White Paper as they applied to emissions of GHGs within the SCAQMD jurisdiction.

The SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group beginning in April of 2008 to examine alternatives for establishing quantitative GHG thresholds. A tiered screening methodology was outlined in the minutes of the final Working Group meeting on September 28, 2010.[15] Tier I consisted of determining whether the project qualified for an applicable categorical exemption under CEQA. A vast majority of projects do not qualify for such an exemption, and the GHG analysis would progress to Tier II. The Tier II screening would be based upon examining the project's consistency with a GHG reduction plan, typically included in a local general plan. The GHG reduction plan would comprise compliance with Assembly Bill 32 reduction goals, preparation of emissions estimates agreed upon by either CARB or the SCAQMD and compiled in a GHG emission inventory tracking system, and a process to monitor progress in achieving reduction targets and enforcement of corrective actions if Assembly Bill 32 goals were not met. In the absence of a local GHG reduction plan, or in the event that the project did not incorporate GHG reduction design features, the Working Group suggested moving on to a Tier III screening threshold based on annual mass emissions of carbon dioxide equivalents.

Under the Tier III methodology, the Working Group proposed a 10,000 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year threshold for industrial projects and a 3,000 $MTCO_2e$ annual threshold for commercial and residential projects, including mixed-use. On December 5, 2008, the SCAQMD adopted the 10,000 $MTCO_2e$ for industrial projects where the SCAQMD is the lead agency. The Working Group proposed to extend this threshold for use by all lead agencies within the SCAQMD jurisdiction. The 3,000 $MTCO_2e$ annual threshold value for commercial and residential projects was selected based on a regional capture rate of 90 percent of all proposed CEQA projects in the SCAQMD jurisdiction, consistent with the methodology employed by the CAPCOA White Paper. At the Tier III analysis level, a project's GHG emissions would be less than significant if they remained below 3,000 $MTCO_2e$ on an annual basis.

[14]SCAQMD, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

[15]SCAQMD, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15*, September 28, 2010, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2, accessed on February 14, 2018.

The final proposed methodology, Tier V, relates to mitigation and CEQA offsets outlined in the CEQA Guidelines. Tier V would be utilized only if a project did not satisfy one of the previously outlined criteria for demonstrating less than significant impacts from GHG emissions. For the purposes of this environmental assessment, the interim Tier III screening threshold value of 3,000 $MTCO_2e$ per year is the most appropriate comparison value for impacts determination based on the commercial elements comprising the proposed project.

4.5 ENVIRONMENTAL IMPACTS

4.5-1 Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? (*Less-Than-Significant Impact*)

Impact Analysis

The proposed project would generate GHG emissions from construction equipment and vehicular traffic. CalEEMod was used to prepare estimates of annual GHG emissions. **Table 4-3** presents the estimated emissions of GHGs that would be released to the atmosphere on an annual basis. Construction of the proposed project would produce approximately 356.4 $MTCO_2e$, or 11.9 $MTCO_2e$ annually over a 30-year period. The total annual operating emissions would be approximately 423.3 $MTCO_2e$ per year after accounting for amortized construction emissions. This mass rate is substantially below the most applicable quantitative draft interim threshold of 3,000 $MTCO_2e$ per year as recommended by the SCAQMD. The new facility will be certified as a LEED-Net Zero (producing as much or more energy than it consumes) facility. Therefore, indirect electricity-related emissions have been excluded from the emissions summary. Furthermore, the new facility will be certified as a LEED-Net Zero and would utilize photovoltaic installations for electricity needs. This would limit reliance from traditional means of electricity and would significantly decrease associated carbon emissions. Therefore, implementation of the proposed project will result in a less-than-significant impact related to GHG emissions.

TABLE 4-3: ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS

Scenario and Source	Annual GHG Emissions ($MTCO_2e$ per Year)
Construction Emissions Amortized (Direct) /a/	11.9
Area Source Emissions (Direct)	<0.1
Mobile Source Emissions (Direct)	364.4
Energy – Natural Gas Emissions (Direct)	10.0
Waste Disposal Emissions (Indirect)	29.4
Water Distribution Emissions (Indirect)	7.5
Total Emissions	**423.3**
SCAQMD Draft Interim Significance Threshold	**3,000**
Exceed Threshold?	No

/a/ Based on SCAQMD guidance, the emissions summary also includes construction emissions amortized over a 30-year span.
SOURCE: TAHA, 2018.

Mitigation Measure

Impacts will be less-than-significant, and no mitigation measures are required.

4.5-2 Would the proposed project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs? (*Less-Than-Significant Impact*)

Impact Analysis

The proposed project would comply with plans, policies and regulations adopted for reducing emissions of GHGs including Assembly Bill 32 Scoping Plan, which includes goals such as the expansion of energy efficiency and producing energy from renewable resources. The City of Los Angeles has published the GreenLA, An Action Plan to Lead the Nation in Fighting Global Warming (the LA Green Plan), where the City will increase renewable energy generation, improve energy conservation and efficiency. SB 375 requires the metropolitan planning organizations to prepare a SCS in their regional transportation plans to achieve the per capita GHG reduction targets and the region's SCS is contained within SCAG's 2016–2040 RTP/SCS. The RTP/SCS focuses on job growth in high quality transit areas, resulting in more opportunity for transit-oriented development. The proposed project would be located within walking distance of the Los Angeles County Metropolitan Transportation Authority (Metro) Local bus station lines 18, 106, 251, 252 and Metro RAPID 720 and 751 on Whitter Boulevard/Soto Street and would primarily serve the surrounding community. These bus routes would provide convenient connection to the regional transit system. The proposed project would be consistent with the mobility and transit accessibility objectives of the RTP/SCS.

Furthermore, the new facility would be certified as a LEED-Net Zero (producing as much or more energy than it consumes) facility. Therefore, the proposed project would result in a less-than-significant impact related to GHG reduction plans.

Mitigation Measure

Impacts would be less-than-significant, and no mitigation measures are required.

4.6 CUMULATIVE IMPACTS

The State of California, through Assembly Bill 32, has acknowledged that GHG emissions are a Statewide impact. Emissions generated by the proposed project combined with past, present, and reasonably probable future projects could contribute to this impact. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative in nature and should be analyzed in the context of CEQA's existing cumulative impacts analysis. The Office of Planning and Research acknowledges that although climate change is cumulative in nature, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project. As discussed above, the proposed project would be LEED-Net Zero, consistent with Assembly Bill 32, and the 2016–2040 RTP/SCS. Therefore, the proposed project incremental contribution to that significant cumulative impact is not cumulatively considerable.

5.0 REFERENCES

California Air Pollution Control Officers Association, *California Emissions Estimator Model (CalEEMod v2016.3.2) User's Guide*, October 2017.

California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

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South Coast Air Quality Management District, *Air Quality Significance Thresholds*, March 2015.

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South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution Appendix D: Cumulative Impact Analysis Requirements Pursuant to CEQA*, August 2003.

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Western Regional Climate Center, *Local Climate Data Summaries*, available at http://www.wrrc.dri.edu

.

APPENDIX

Air Quality Calculations

LABOE Boyle Heights Sports Center

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.60	1000sqft	0.13	5,600.00	0
Other Non-Asphalt Surfaces	3.68	1000sqft	0.08	3,680.00	0
Parking Lot	8.70	1000sqft	0.20	8,700.00	0
Racquet Club	10.26	1000sqft	0.24	10,260.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

LABOE Boyle Heights Sports Center - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Project Specific land uses

Construction Phase - Construction Schedule Provided

Off-road Equipment - construction info provided

Boomlift is classified as an 'aerial lift'

Off-road Equipment - Construction equipment inventory provided by project team
*Other construction equipment with 300 HP is a Concrete Truck
Scissor Lift and Boom Lift are classified as 'aerial lifts'
'Paving Equipment' is assigned to the vibrator.

Off-road Equipment - Construction Info Provided

Off-road Equipment - construction info provided

Off-road Equipment - Parking Lot Assumption

Off-road Equipment - Construction Info Provided

Trips and VMT - Construction Project Info

Demolition - 100 CY of materials exported, provided by client.

Grading - contruction info provided

Vehicle Trips - 288 total daily trips per trip report.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - compliance with scaqmd rule 403

Area Mitigation -

Energy Mitigation - Net Zero

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	58.00

tblConstructionPhase	NumDays	100.00	360.00
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	2.00	25.00
tblConstructionPhase	NumDays	5.00	58.00
tblConstructionPhase	NumDays	1.00	10.00
tblGrading	AcresOfGrading	0.00	12.50
tblGrading	MaterialExported	0.00	4,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblTripsAndVMT	HaulingTripNumber	12.00	500.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	5.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	16.00
tblTripsAndVMT	WorkerTripNumber	5.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	12.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	12.00
tblVehicleTrips	CC_TTP	69.50	100.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	11.50	0.00

tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	ST_TR	21.35	28.10
tblVehicleTrips	SU_TR	17.40	28.10
tblVehicleTrips	WD_TR	14.03	28.10

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.9507	34.0585	18.2383	0.0533	7.0990	1.2690	8.2296	3.5135	1.1819	4.5543	0.0000	5,328.2809	5,328.2809	1.0965	0.0000	5,355.6929
2022	2.5999	15.8776	17.4487	0.0330	0.2620	0.6797	0.9417	0.0704	0.6371	0.7075	0.0000	3,199.5548	3,199.5548	0.7603	0.0000	3,218.5611
Maximum	**2.9507**	**34.0585**	**18.2383**	**0.0533**	**7.0990**	**1.2690**	**8.2296**	**3.5135**	**1.1819**	**4.5543**	**0.0000**	**5,328.2809**	**5,328.2809**	**1.0965**	**0.0000**	**5,355.6929**

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					
2021	2.9507	34.0585	18.2383	0.0533	3.0910	1.2690	4.2217	1.4577	1.1819	2.4985	0.0000	5,328.2809	5,328.2809	1.0965	0.0000	5,355.6929
2022	2.5999	15.8776	17.4487	0.0330	0.2620	0.6797	0.9417	0.0704	0.6371	0.7075	0.0000	3,199.5548	3,199.5548	0.7603	0.0000	3,218.5610
Maximum	**2.9507**	**34.0585**	**18.2383**	**0.0533**	**3.0910**	**1.2690**	**4.2217**	**1.4577**	**1.1819**	**2.4985**	**0.0000**	**5,328.2809**	**5,328.2809**	**1.0965**	**0.0000**	**5,355.6929**

	ROG	NOx	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**	**54.45**	**0.00**	**43.70**	**57.36**	**0.00**	**39.07**	**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	0.2372	3.0000e-005	2.8800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1800e-003	6.1800e-003	2.0000e-005		6.5900e-003
Energy	5.4900e-003	0.0499	0.0419	3.0000e-004		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003		59.8569	59.8569	1.1500e-003	1.1000e-003	60.2126
Mobile	0.4385	1.9020	5.6705	0.0213	1.8745	0.0165	1.8910	0.5016	0.0154	0.5170		2,173.7469	2,173.7469	0.1092		2,176.4772
Total	**0.6812**	**1.9519**	**5.7153**	**0.0216**	**1.8745**	**0.0203**	**1.8948**	**0.5016**	**0.0192**	**0.5208**		**2,233.6100**	**2,233.6100**	**0.1104**	**1.1000e-003**	**2,236.6963**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2372	3.0000e-005	2.8800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1800e-003	6.1800e-003	2.0000e-005		6.5900e-003
Energy	5.4900e-003	0.0499	0.0419	3.0000e-004		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003		59.8569	59.8569	1.1500e-003	1.1000e-003	60.2126
Mobile	0.4385	1.9020	5.6705	0.0213	1.8745	0.0165	1.8910	0.5016	0.0154	0.5170		2,173.7469	2,173.7469	0.1092		2,176.4772
Total	**0.6812**	**1.9519**	**5.7153**	**0.0216**	**1.8745**	**0.0203**	**1.8948**	**0.5016**	**0.0192**	**0.5208**		**2,233.6100**	**2,233.6100**	**0.1104**	**1.1000e-003**	**2,236.6963**

	ROG	NOx	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	3/1/2021	4/2/2021	5	25	
2	Site Preparation	Site Preparation	4/5/2021	4/16/2021	5	10	
3	Grading	Grading	4/19/2021	5/21/2021	5	25	
4	Building Construction	Building Construction	5/24/2021	10/7/2022	5	360	
5	Paving	Paving	10/10/2022	12/28/2022	5	58	
6	Architectural Coating	Architectural Coating	10/10/2022	12/28/2022	5	58	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 12.5

Acres of Paving: 0.41

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,390; Non-Residential Outdoor: 5,130; Striped Parking Area: 1,079 (Architectural Coating – sqft)

OffRoad Equipment

LABOE Boyle Heights Sports Center - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Scrapers	1	8.00	367	0.48
Site Preparation	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	1	8.00	158	0.38
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Paving Equipment	1	8.00	132	0.36
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Paving	Cement and Mortar Mixers	2	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Architectural Coating	Aerial Lifts	2	8.00	63	0.31
Architectural Coating	Air Compressors	1	8.00	78	0.48
Architectural Coating	Rough Terrain Forklifts	1	8.00	100	0.40

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	4	16.00	0.00	500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	16.00	0.00	40.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	16.00	0.00	500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	12.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

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					0.1027	0.0000	0.1027	0.0156	0.0000	0.0156			0.0000			0.0000
Off-Road	2.7036	28.5757	16.3152	0.0362		1.2508	1.2508		1.1646	1.1646		3,493.1546	3,493.1546	0.9725		3,517.4669
Total	**2.7036**	**28.5757**	**16.3152**	**0.0362**	**0.1027**	**1.2508**	**1.3535**	**0.0156**	**1.1646**	**1.1801**		**3,493.1546**	**3,493.1546**	**0.9725**		**3,517.4669**

3.2 Demolition - 2021

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	0.1708	5.4306	1.3339	0.0153	0.3497	0.0167	0.3664	0.0959	0.0160	0.1119		1,663.5662	1,663.5662	0.1189		1,666.5396
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.2471**	**5.4828**	**1.9231**	**0.0171**	**0.5286**	**0.0182**	**0.5467**	**0.1433**	**0.0173**	**0.1606**		**1,835.1264**	**1,835.1264**	**0.1240**		**1,838.2260**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0401	0.0000	0.0401	6.0700e-003	0.0000	6.0700e-003			0.0000			0.0000
Off-Road	2.7036	28.5757	16.3152	0.0362		1.2508	1.2508		1.1646	1.1646	0.0000	3,493.1546	3,493.1546	0.9725		3,517.4669
Total	**2.7036**	**28.5757**	**16.3152**	**0.0362**	**0.0401**	**1.2508**	**1.2909**	**6.0700e-003**	**1.1646**	**1.1707**	**0.0000**	**3,493.1546**	**3,493.1546**	**0.9725**		**3,517.4669**

3.2 Demolition - 2021

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	0.1708	5.4306	1.3339	0.0153	0.3497	0.0167	0.3664	0.0959	0.0160	0.1119		1,663.5662	1,663.5662	0.1189		1,666.5396
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.2471**	**5.4828**	**1.9231**	**0.0171**	**0.5286**	**0.0182**	**0.5467**	**0.1433**	**0.0173**	**0.1606**		**1,835.1264**	**1,835.1264**	**0.1240**		**1,838.2260**

3.3 Site Preparation - 2021

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6860	7.7275	3.1974	0.0125		0.2577	0.2577		0.2371	0.2371		1,210.4525	1,210.4525	0.3915		1,220.2396
Total	**0.6860**	**7.7275**	**3.1974**	**0.0125**	**0.0000**	**0.2577**	**0.2577**	**0.0000**	**0.2371**	**0.2371**		**1,210.4525**	**1,210.4525**	**0.3915**		**1,220.2396**

3.3 Site Preparation - 2021

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	0.0342	1.0861	0.2668	3.0700e-003	0.0699	3.3400e-003	0.0733	0.0192	3.2000e-003	0.0224		332.7132	332.7132	0.0238		333.3079
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.1104**	**1.1383**	**0.8560**	**4.7900e-003**	**0.2488**	**4.7900e-003**	**0.2536**	**0.0666**	**4.5300e-003**	**0.0711**		**504.2734**	**504.2734**	**0.0288**		**504.9943**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6860	7.7275	3.1974	0.0125		0.2577	0.2577		0.2371	0.2371	0.0000	1,210.4525	1,210.4525	0.3915		1,220.2396
Total	**0.6860**	**7.7275**	**3.1974**	**0.0125**	**0.0000**	**0.2577**	**0.2577**	**0.0000**	**0.2371**	**0.2371**	**0.0000**	**1,210.4525**	**1,210.4525**	**0.3915**		**1,220.2396**

3.3 Site Preparation - 2021

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	0.0342	1.0861	0.2668	3.0700e-003	0.0699	3.3400e-003	0.0733	0.0192	3.2000e-003	0.0224		332.7132	332.7132	0.0238		333.3079
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.1104**	**1.1383**	**0.8560**	**4.7900e-003**	**0.2488**	**4.7900e-003**	**0.2536**	**0.0666**	**4.5300e-003**	**0.0711**		**504.2734**	**504.2734**	**0.0288**		**504.9943**

3.4 Grading - 2021

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					6.5704	0.0000	6.5704	3.3702	0.0000	3.3702			0.0000			0.0000
Off-Road	2.2279	23.2936	14.8438	0.0288		1.1125	1.1125		1.0235	1.0235		2,785.3837	2,785.3837	0.9009		2,807.9050
Total	**2.2279**	**23.2936**	**14.8438**	**0.0288**	**6.5704**	**1.1125**	**7.6829**	**3.3702**	**1.0235**	**4.3937**		**2,785.3837**	**2,785.3837**	**0.9009**		**2,807.9050**

3.4 Grading - 2021

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	0.1708	5.4306	1.3339	0.0153	0.3497	0.0167	0.3664	0.0959	0.0160	0.1119		1,663.5662	1,663.5662	0.1189		1,666.5396
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.2471**	**5.4828**	**1.9231**	**0.0171**	**0.5286**	**0.0182**	**0.5467**	**0.1433**	**0.0173**	**0.1606**		**1,835.1264**	**1,835.1264**	**0.1240**		**1,838.2260**

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					2.5625	0.0000	2.5625	1.3144	0.0000	1.3144			0.0000			0.0000
Off-Road	2.2279	23.2936	14.8438	0.0288		1.1125	1.1125		1.0235	1.0235	0.0000	2,785.3837	2,785.3837	0.9009		2,807.9050
Total	**2.2279**	**23.2936**	**14.8438**	**0.0288**	**2.5625**	**1.1125**	**3.6749**	**1.3144**	**1.0235**	**2.3379**	**0.0000**	**2,785.3837**	**2,785.3837**	**0.9009**		**2,807.9050**

3.4 Grading - 2021

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	0.1708	5.4306	1.3339	0.0153	0.3497	0.0167	0.3664	0.0959	0.0160	0.1119		1,663.5662	1,663.5662	0.1189		1,666.5396
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.2471**	**5.4828**	**1.9231**	**0.0171**	**0.5286**	**0.0182**	**0.5467**	**0.1433**	**0.0173**	**0.1606**		**1,835.1264**	**1,835.1264**	**0.1240**		**1,838.2260**

3.5 Building Construction - 2021

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	1.5804	17.1502	16.7464	0.0294		0.7749	0.7749		0.7263	0.7263		2,833.7625	2,833.7625	0.7468		2,852.4322
Total	**1.5804**	**17.1502**	**16.7464**	**0.0294**		**0.7749**	**0.7749**		**0.7263**	**0.7263**		**2,833.7625**	**2,833.7625**	**0.7468**		**2,852.4322**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0192	0.5813	0.1685	1.5000e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1800e-003	0.0122		160.4073	160.4073	0.0104		160.6662
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.1145**	**0.6466**	**0.9050**	**3.6500e-003**	**0.2620**	**3.0400e-003**	**0.2650**	**0.0704**	**2.8400e-003**	**0.0732**		**374.8575**	**374.8575**	**0.0167**		**375.2742**

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	1.5804	17.1502	16.7464	0.0294		0.7749	0.7749		0.7263	0.7263	0.0000	2,833.7625	2,833.7625	0.7468		2,852.4322
Total	**1.5804**	**17.1502**	**16.7464**	**0.0294**		**0.7749**	**0.7749**		**0.7263**	**0.7263**	**0.0000**	**2,833.7625**	**2,833.7625**	**0.7468**		**2,852.4322**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0192	0.5813	0.1685	1.5000e-003	0.0384	1.2300e-003	0.0396	0.0111	1.1800e-003	0.0122		160.4073	160.4073	0.0104		160.6662
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.1145**	**0.6466**	**0.9050**	**3.6500e-003**	**0.2620**	**3.0400e-003**	**0.2650**	**0.0704**	**2.8400e-003**	**0.0732**		**374.8575**	**374.8575**	**0.0167**		**375.2742**

3.5 Building Construction - 2022

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	1.4412	15.2662	16.6109	0.0294		0.6769	0.6769		0.6345	0.6345		2,833.6587	2,833.6587	0.7446		2,852.2728
Total	**1.4412**	**15.2662**	**16.6109**	**0.0294**		**0.6769**	**0.6769**		**0.6345**	**0.6345**		**2,833.6587**	**2,833.6587**	**0.7446**		**2,852.2728**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0180	0.5525	0.1595	1.4900e-003	0.0384	1.0800e-003	0.0395	0.0111	1.0300e-003	0.0121		158.9822	158.9822	9.9900e-003		159.2320
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.1075**	**0.6114**	**0.8378**	**3.5700e-003**	**0.2620**	**2.8300e-003**	**0.2648**	**0.0704**	**2.6400e-003**	**0.0730**		**365.8961**	**365.8961**	**0.0157**		**366.2883**

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	1.4412	15.2662	16.6109	0.0294		0.6769	0.6769		0.6345	0.6345	0.0000	2,833.6587	2,833.6587	0.7446		2,852.2728
Total	**1.4412**	**15.2662**	**16.6109**	**0.0294**		**0.6769**	**0.6769**		**0.6345**	**0.6345**	**0.0000**	**2,833.6587**	**2,833.6587**	**0.7446**		**2,852.2728**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0180	0.5525	0.1595	1.4900e-003	0.0384	1.0800e-003	0.0395	0.0111	1.0300e-003	0.0121		158.9822	158.9822	9.9900e-003		159.2320
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.1075**	**0.6114**	**0.8378**	**3.5700e-003**	**0.2620**	**2.8300e-003**	**0.2648**	**0.0704**	**2.6400e-003**	**0.0730**		**365.8961**	**365.8961**	**0.0157**		**366.2883**

3.6 Paving - 2022

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	0.3244	2.8353	3.5008	6.1300e-003		0.1283	0.1283		0.1204	0.1204		556.2906	556.2906	0.1577		560.2338
Paving	9.0300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3334**	**2.8353**	**3.5008**	**6.1300e-003**		**0.1283**	**0.1283**		**0.1204**	**0.1204**		**556.2906**	**556.2906**	**0.1577**		**560.2338**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.3244	2.8353	3.5008	6.1300e-003		0.1283	0.1283		0.1204	0.1204	0.0000	556.2906	556.2906	0.1577		560.2338
Paving	9.0300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3334**	**2.8353**	**3.5008**	**6.1300e-003**		**0.1283**	**0.1283**		**0.1204**	**0.1204**	**0.0000**	**556.2906**	**556.2906**	**0.1577**		**560.2338**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Architectural Coating - 2022

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	1.7261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4567	4.4788	6.8945	0.0108		0.1814	0.1814		0.1756	0.1756		1,034.2582	1,034.2582	0.2376		1,040.1973
Total	**2.1828**	**4.4788**	**6.8945**	**0.0108**		**0.1814**	**0.1814**		**0.1756**	**0.1756**		**1,034.2582**	**1,034.2582**	**0.2376**		**1,040.1973**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0300	0.9208	0.2658	2.4800e-003	0.0640	1.7900e-003	0.0658	0.0184	1.7100e-003	0.0202		264.9703	264.9703	0.0167		265.3866
Worker	0.0537	0.0354	0.4070	1.2500e-003	0.1341	1.0500e-003	0.1352	0.0356	9.7000e-004	0.0365		124.1483	124.1483	3.4200e-003		124.2338
Total	**0.0837**	**0.9561**	**0.6728**	**3.7300e-003**	**0.1982**	**2.8400e-003**	**0.2010**	**0.0540**	**2.6800e-003**	**0.0567**		**389.1186**	**389.1186**	**0.0201**		**389.6204**

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	1.7261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4567	4.4788	6.8945	0.0108		0.1814	0.1814		0.1756	0.1756	0.0000	1,034.2582	1,034.2582	0.2376		1,040.1973
Total	**2.1828**	**4.4788**	**6.8945**	**0.0108**		**0.1814**	**0.1814**		**0.1756**	**0.1756**	**0.0000**	**1,034.2582**	**1,034.2582**	**0.2376**		**1,040.1973**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0300	0.9208	0.2658	2.4800e-003	0.0640	1.7900e-003	0.0658	0.0184	1.7100e-003	0.0202		264.9703	264.9703	0.0167		265.3866
Worker	0.0537	0.0354	0.4070	1.2500e-003	0.1341	1.0500e-003	0.1352	0.0356	9.7000e-004	0.0365		124.1483	124.1483	3.4200e-003		124.2338
Total	**0.0837**	**0.9561**	**0.6728**	**3.7300e-003**	**0.1982**	**2.8400e-003**	**0.2010**	**0.0540**	**2.6800e-003**	**0.0567**		**389.1186**	**389.1186**	**0.0201**		**389.6204**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4385	1.9020	5.6705	0.0213	1.8745	0.0165	1.8910	0.5016	0.0154	0.5170		2,173.7469	2,173.7469	0.1092		2,176.4772
Unmitigated	0.4385	1.9020	5.6705	0.0213	1.8745	0.0165	1.8910	0.5016	0.0154	0.5170		2,173.7469	2,173.7469	0.1092		2,176.4772

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Racquet Club	288.31	288.31	288.31	881,524	881,524
Total	288.31	288.31	288.31	881,524	881,524

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
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Racquet Club	16.60	8.40	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Parking Lot	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Racquet Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.4900e-003	0.0499	0.0419	3.0000e-004		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003		59.8569	59.8569	1.1500e-003	1.1000e-003	60.2126
NaturalGas Unmitigated	5.4900e-003	0.0499	0.0419	3.0000e-004		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003		59.8569	59.8569	1.1500e-003	1.1000e-003	60.2126

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	508.784	5.4900e-003	0.0499	0.0419	3.0000e-004		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003		59.8569	59.8569	1.1500e-003	1.1000e-003	60.2126
Total		**5.4900e-003**	**0.0499**	**0.0419**	**3.0000e-004**		**3.7900e-003**	**3.7900e-003**		**3.7900e-003**	**3.7900e-003**		**59.8569**	**59.8569**	**1.1500e-003**	**1.1000e-003**	**60.2126**

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					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	0.508784	5.4900e-003	0.0499	0.0419	3.0000e-004		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003		59.8569	59.8569	1.1500e-003	1.1000e-003	60.2126
Total		**5.4900e-003**	**0.0499**	**0.0419**	**3.0000e-004**		**3.7900e-003**	**3.7900e-003**		**3.7900e-003**	**3.7900e-003**		**59.8569**	**59.8569**	**1.1500e-003**	**1.1000e-003**	**60.2126**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2372	3.0000e-005	2.8800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1800e-003	6.1800e-003	2.0000e-005		6.5900e-003
Unmitigated	0.2372	3.0000e-005	2.8800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1800e-003	6.1800e-003	2.0000e-005		6.5900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2095					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1800e-003	6.1800e-003	2.0000e-005		6.5900e-003
Total	**0.2372**	**3.0000e-005**	**2.8800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.1800e-003**	**6.1800e-003**	**2.0000e-005**		**6.5900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2095					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.7000e-004	3.0000e-005	2.8800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.1800e-003	6.1800e-003	2.0000e-005		6.5900e-003
Total	**0.2372**	**3.0000e-005**	**2.8800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**6.1800e-003**	**6.1800e-003**	**2.0000e-005**		**6.5900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

LABOE Boyle Heights Sports Center

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.60	1000sqft	0.13	5,600.00	0
Other Non-Asphalt Surfaces	3.68	1000sqft	0.08	3,680.00	0
Parking Lot	8.70	1000sqft	0.20	8,700.00	0
Racquet Club	10.26	1000sqft	0.24	10,260.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

LABOE Boyle Heights Sports Center - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - Project Specific land uses

Construction Phase - Construction Schedule Provided

Off-road Equipment - construction info provided

Boomlift is classified as an 'aerial lift'

Off-road Equipment - Construction equipment inventory provided by project team
*Other construction equipment with 300 HP is a Concrete Truck
Scissor Lift and Boom Lift are classified as 'aerial lifts'
'Paving Equipment' is assigned to the vibrator.

Off-road Equipment - Construction Info Provided

Off-road Equipment - construction info provided

Off-road Equipment - Parking Lot Assumption

Off-road Equipment - Construction Info Provided

Trips and VMT - Construction Project Info

Demolition - 100 CY of materials exported, provided by client.

Grading - contruction info provided

Vehicle Trips - 288 total daily trips per trip report.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - compliance with scaqmd rule 403

Area Mitigation -

Energy Mitigation - Net Zero

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	58.00

tblConstructionPhase	NumDays	100.00	360.00
tblConstructionPhase	NumDays	10.00	25.00
tblConstructionPhase	NumDays	2.00	25.00
tblConstructionPhase	NumDays	5.00	58.00
tblConstructionPhase	NumDays	1.00	10.00
tblGrading	AcresOfGrading	0.00	12.50
tblGrading	MaterialExported	0.00	4,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblTripsAndVMT	HaulingTripNumber	12.00	500.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	5.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	16.00
tblTripsAndVMT	WorkerTripNumber	5.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	12.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	12.00
tblVehicleTrips	CC_TTP	69.50	100.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	11.50	0.00

tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	ST_TR	21.35	28.10
tblVehicleTrips	SU_TR	17.40	28.10
tblVehicleTrips	WD_TR	14.03	28.10

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2063	2.2573	1.8703	3.9800e-003	0.1182	0.0935	0.2117	0.0517	0.0873	0.1390	0.0000	354.3884	354.3884	0.0813	0.0000	356.4208
2022	0.2292	1.8293	2.0669	3.9000e-003	0.0313	0.0770	0.1084	8.4500e-003	0.0724	0.0808	0.0000	343.0590	343.0590	0.0799	0.0000	345.0555
Maximum	**0.2292**	**2.2573**	**2.0669**	**3.9800e-003**	**0.1182**	**0.0935**	**0.2117**	**0.0517**	**0.0873**	**0.1390**	**0.0000**	**354.3884**	**354.3884**	**0.0813**	**0.0000**	**356.4208**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.2063	2.2573	1.8702	3.9800e-003	0.0673	0.0935	0.1608	0.0259	0.0873	0.1132	0.0000	354.3880	354.3880	0.0813	0.0000	356.4205
2022	0.2292	1.8293	2.0669	3.9000e-003	0.0313	0.0770	0.1084	8.4500e-003	0.0724	0.0808	0.0000	343.0586	343.0586	0.0799	0.0000	345.0552
Maximum	**0.2292**	**2.2573**	**2.0669**	**3.9800e-003**	**0.0673**	**0.0935**	**0.1608**	**0.0259**	**0.0873**	**0.1132**	**0.0000**	**354.3880**	**354.3880**	**0.0813**	**0.0000**	**356.4205**

	ROG	NOx	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**	**34.04**	**0.00**	**15.90**	**42.91**	**0.00**	**11.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	0.9004	0.9004
2	6-1-2021	8-31-2021	0.6399	0.6399
3	9-1-2021	11-30-2021	0.6333	0.6333
4	12-1-2021	2-28-2022	0.5830	0.5830
5	3-1-2022	5-31-2022	0.5723	0.5723
6	6-1-2022	8-31-2022	0.5721	0.5721
7	9-1-2022	9-30-2022	0.1866	0.1866
		Highest	0.9004	0.9004

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0433	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-004	7.0000e-004	0.0000	0.0000	7.5000e-004
Energy	1.0000e-003	9.1000e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	75.0361	75.0361	1.7300e-003	5.0000e-004	75.2282
Mobile	0.0779	0.3521	1.0470	3.9400e-003	0.3346	2.9900e-003	0.3376	0.0897	2.7800e-003	0.0925	0.0000	363.9994	363.9994	0.0180	0.0000	364.4484
Waste						0.0000	0.0000		0.0000	0.0000	11.8709	0.0000	11.8709	0.7016	0.0000	29.4097
Water						0.0000	0.0000		0.0000	0.0000	0.1925	6.7021	6.8946	0.0199	5.0000e-004	7.5417
Total	**0.1222**	**0.3612**	**1.0551**	**3.9900e-003**	**0.3346**	**3.6800e-003**	**0.3383**	**0.0897**	**3.4700e-003**	**0.0932**	**12.0634**	**445.7382**	**457.8016**	**0.7412**	**1.0000e-003**	**476.6288**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0433	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-004	7.0000e-004	0.0000	0.0000	7.5000e-004
Energy	1.0000e-003	9.1000e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9100	9.9100	1.9000e-004	1.8000e-004	9.9689
Mobile	0.0779	0.3521	1.0470	3.9400e-003	0.3346	2.9900e-003	0.3376	0.0897	2.7800e-003	0.0925	0.0000	363.9994	363.9994	0.0180	0.0000	364.4484
Waste						0.0000	0.0000		0.0000	0.0000	11.8709	0.0000	11.8709	0.7016	0.0000	29.4097
Water						0.0000	0.0000		0.0000	0.0000	0.1925	6.7021	6.8946	0.0199	5.0000e-004	7.5417
Total	**0.1222**	**0.3612**	**1.0551**	**3.9900e-003**	**0.3346**	**3.6800e-003**	**0.3383**	**0.0897**	**3.4700e-003**	**0.0932**	**12.0634**	**380.6121**	**392.6755**	**0.7396**	**6.8000e-004**	**411.3694**

	ROG	NOx	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**	**14.61**	**14.23**	**0.21**	**32.00**	**13.69**

3.0 Construction Detail

Construction Phase

LABOE Boyle Heights Sports Center - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	4/2/2021	5	25	
2	Site Preparation	Site Preparation	4/5/2021	4/16/2021	5	10	
3	Grading	Grading	4/19/2021	5/21/2021	5	25	
4	Building Construction	Building Construction	5/24/2021	10/7/2022	5	360	
5	Paving	Paving	10/10/2022	12/28/2022	5	58	
6	Architectural Coating	Architectural Coating	10/10/2022	12/28/2022	5	58	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 12.5

Acres of Paving: 0.41

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,390; Non-Residential Outdoor: 5,130; Striped Parking Area: 1,079 (Architectural Coating – sqft)

OffRoad Equipment

LABOE Boyle Heights Sports Center - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Scrapers	1	8.00	367	0.48
Site Preparation	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	1	8.00	158	0.38
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Paving Equipment	1	8.00	132	0.36
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Paving	Cement and Mortar Mixers	2	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Architectural Coating	Aerial Lifts	2	8.00	63	0.31
Architectural Coating	Air Compressors	1	8.00	78	0.48
Architectural Coating	Rough Terrain Forklifts	1	8.00	100	0.40

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	4	16.00	0.00	500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	16.00	0.00	40.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	16.00	0.00	500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	12.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2800e-003	0.0000	1.2800e-003	1.9000e-004	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0338	0.3572	0.2039	4.5000e-004		0.0156	0.0156		0.0146	0.0146	0.0000	39.6117	39.6117	0.0110	0.0000	39.8874
Total	**0.0338**	**0.3572**	**0.2039**	**4.5000e-004**	**1.2800e-003**	**0.0156**	**0.0169**	**1.9000e-004**	**0.0146**	**0.0148**	**0.0000**	**39.6117**	**39.6117**	**0.0110**	**0.0000**	**39.8874**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1100e-003	0.0692	0.0161	1.9000e-004	4.3000e-003	2.1000e-004	4.5000e-003	1.1800e-003	2.0000e-004	1.3800e-003	0.0000	19.0574	19.0574	1.3200e-003	0.0000	19.0905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.7000e-004	7.5600e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9778	1.9778	6.0000e-005	0.0000	1.9793
Total	**2.9700e-003**	**0.0699**	**0.0237**	**2.1000e-004**	**6.4900e-003**	**2.3000e-004**	**6.7100e-003**	**1.7600e-003**	**2.2000e-004**	**1.9800e-003**	**0.0000**	**21.0352**	**21.0352**	**1.3800e-003**	**0.0000**	**21.0698**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0000e-004	0.0000	5.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0338	0.3572	0.2039	4.5000e-004		0.0156	0.0156		0.0146	0.0146	0.0000	39.6117	39.6117	0.0110	0.0000	39.8874
Total	**0.0338**	**0.3572**	**0.2039**	**4.5000e-004**	**5.0000e-004**	**0.0156**	**0.0161**	**8.0000e-005**	**0.0146**	**0.0146**	**0.0000**	**39.6117**	**39.6117**	**0.0110**	**0.0000**	**39.8874**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1100e-003	0.0692	0.0161	1.9000e-004	4.3000e-003	2.1000e-004	4.5000e-003	1.1800e-003	2.0000e-004	1.3800e-003	0.0000	19.0574	19.0574	1.3200e-003	0.0000	19.0905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.7000e-004	7.5600e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9778	1.9778	6.0000e-005	0.0000	1.9793
Total	**2.9700e-003**	**0.0699**	**0.0237**	**2.1000e-004**	**6.4900e-003**	**2.3000e-004**	**6.7100e-003**	**1.7600e-003**	**2.2000e-004**	**1.9800e-003**	**0.0000**	**21.0352**	**21.0352**	**1.3800e-003**	**0.0000**	**21.0698**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4300e-003	0.0386	0.0160	6.0000e-005		1.2900e-003	1.2900e-003		1.1900e-003	1.1900e-003	0.0000	5.4905	5.4905	1.7800e-003	0.0000	5.5349
Total	**3.4300e-003**	**0.0386**	**0.0160**	**6.0000e-005**	**0.0000**	**1.2900e-003**	**1.2900e-003**	**0.0000**	**1.1900e-003**	**1.1900e-003**	**0.0000**	**5.4905**	**5.4905**	**1.7800e-003**	**0.0000**	**5.5349**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	5.5400e-003	1.2900e-003	2.0000e-005	3.4000e-004	2.0000e-005	3.6000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.5246	1.5246	1.1000e-004	0.0000	1.5272
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	3.0300e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7911	0.7911	2.0000e-005	0.0000	0.7917
Total	**5.1000e-004**	**5.8100e-003**	**4.3200e-003**	**3.0000e-005**	**1.2200e-003**	**3.0000e-005**	**1.2400e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**2.3157**	**2.3157**	**1.3000e-004**	**0.0000**	**2.3190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4300e-003	0.0386	0.0160	6.0000e-005		1.2900e-003	1.2900e-003		1.1900e-003	1.1900e-003	0.0000	5.4905	5.4905	1.7800e-003	0.0000	5.5349
Total	**3.4300e-003**	**0.0386**	**0.0160**	**6.0000e-005**	**0.0000**	**1.2900e-003**	**1.2900e-003**	**0.0000**	**1.1900e-003**	**1.1900e-003**	**0.0000**	**5.4905**	**5.4905**	**1.7800e-003**	**0.0000**	**5.5349**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	5.5400e-003	1.2900e-003	2.0000e-005	3.4000e-004	2.0000e-005	3.6000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.5246	1.5246	1.1000e-004	0.0000	1.5272
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	3.0300e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7911	0.7911	2.0000e-005	0.0000	0.7917
Total	**5.1000e-004**	**5.8100e-003**	**4.3200e-003**	**3.0000e-005**	**1.2200e-003**	**3.0000e-005**	**1.2400e-003**	**3.2000e-004**	**3.0000e-005**	**3.5000e-004**	**0.0000**	**2.3157**	**2.3157**	**1.3000e-004**	**0.0000**	**2.3190**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0821	0.0000	0.0821	0.0421	0.0000	0.0421	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0279	0.2912	0.1856	3.6000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	31.5857	31.5857	0.0102	0.0000	31.8411
Total	**0.0279**	**0.2912**	**0.1856**	**3.6000e-004**	**0.0821**	**0.0139**	**0.0960**	**0.0421**	**0.0128**	**0.0549**	**0.0000**	**31.5857**	**31.5857**	**0.0102**	**0.0000**	**31.8411**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1100e-003	0.0692	0.0161	1.9000e-004	4.3000e-003	2.1000e-004	4.5000e-003	1.1800e-003	2.0000e-004	1.3800e-003	0.0000	19.0574	19.0574	1.3200e-003	0.0000	19.0905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.7000e-004	7.5600e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9778	1.9778	6.0000e-005	0.0000	1.9793
Total	**2.9700e-003**	**0.0699**	**0.0237**	**2.1000e-004**	**6.4900e-003**	**2.3000e-004**	**6.7100e-003**	**1.7600e-003**	**2.2000e-004**	**1.9800e-003**	**0.0000**	**21.0352**	**21.0352**	**1.3800e-003**	**0.0000**	**21.0698**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0320	0.0000	0.0320	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0279	0.2912	0.1856	3.6000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	31.5857	31.5857	0.0102	0.0000	31.8411
Total	**0.0279**	**0.2912**	**0.1856**	**3.6000e-004**	**0.0320**	**0.0139**	**0.0459**	**0.0164**	**0.0128**	**0.0292**	**0.0000**	**31.5857**	**31.5857**	**0.0102**	**0.0000**	**31.8411**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1100e-003	0.0692	0.0161	1.9000e-004	4.3000e-003	2.1000e-004	4.5000e-003	1.1800e-003	2.0000e-004	1.3800e-003	0.0000	19.0574	19.0574	1.3200e-003	0.0000	19.0905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.7000e-004	7.5600e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9778	1.9778	6.0000e-005	0.0000	1.9793
Total	**2.9700e-003**	**0.0699**	**0.0237**	**2.1000e-004**	**6.4900e-003**	**2.3000e-004**	**6.7100e-003**	**1.7600e-003**	**2.2000e-004**	**1.9800e-003**	**0.0000**	**21.0352**	**21.0352**	**1.3800e-003**	**0.0000**	**21.0698**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1264	1.3720	1.3397	2.3500e-003		0.0620	0.0620		0.0581	0.0581	0.0000	205.6597	205.6597	0.0542	0.0000	207.0146
Total	**0.1264**	**1.3720**	**1.3397**	**2.3500e-003**		**0.0620**	**0.0620**		**0.0581**	**0.0581**	**0.0000**	**205.6597**	**205.6597**	**0.0542**	**0.0000**	**207.0146**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	0.0474	0.0128	1.2000e-004	3.0200e-003	1.0000e-004	3.1200e-003	8.7000e-004	9.0000e-005	9.6000e-004	0.0000	11.8318	11.8318	7.3000e-004	0.0000	11.8500
Worker	6.8800e-003	5.3600e-003	0.0605	1.8000e-004	0.0175	1.4000e-004	0.0177	4.6600e-003	1.3000e-004	4.7900e-003	0.0000	15.8227	15.8227	4.7000e-004	0.0000	15.8343
Total	**8.3700e-003**	**0.0527**	**0.0734**	**3.0000e-004**	**0.0206**	**2.4000e-004**	**0.0208**	**5.5300e-003**	**2.2000e-004**	**5.7500e-003**	**0.0000**	**27.6545**	**27.6545**	**1.2000e-003**	**0.0000**	**27.6843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1264	1.3720	1.3397	2.3500e-003		0.0620	0.0620		0.0581	0.0581	0.0000	205.6594	205.6594	0.0542	0.0000	207.0144
Total	**0.1264**	**1.3720**	**1.3397**	**2.3500e-003**		**0.0620**	**0.0620**		**0.0581**	**0.0581**	**0.0000**	**205.6594**	**205.6594**	**0.0542**	**0.0000**	**207.0144**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4900e-003	0.0474	0.0128	1.2000e-004	3.0200e-003	1.0000e-004	3.1200e-003	8.7000e-004	9.0000e-005	9.6000e-004	0.0000	11.8318	11.8318	7.3000e-004	0.0000	11.8500
Worker	6.8800e-003	5.3600e-003	0.0605	1.8000e-004	0.0175	1.4000e-004	0.0177	4.6600e-003	1.3000e-004	4.7900e-003	0.0000	15.8227	15.8227	4.7000e-004	0.0000	15.8343
Total	**8.3700e-003**	**0.0527**	**0.0734**	**3.0000e-004**	**0.0206**	**2.4000e-004**	**0.0208**	**5.5300e-003**	**2.2000e-004**	**5.7500e-003**	**0.0000**	**27.6545**	**27.6545**	**1.2000e-003**	**0.0000**	**27.6843**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1441	1.5266	1.6611	2.9400e-003		0.0677	0.0677		0.0635	0.0635	0.0000	257.0652	257.0652	0.0676	0.0000	258.7538
Total	**0.1441**	**1.5266**	**1.6611**	**2.9400e-003**		**0.0677**	**0.0677**		**0.0635**	**0.0635**	**0.0000**	**257.0652**	**257.0652**	**0.0676**	**0.0000**	**258.7538**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7500e-003	0.0563	0.0152	1.5000e-004	3.7800e-003	1.1000e-004	3.8900e-003	1.0900e-003	1.0000e-004	1.1900e-003	0.0000	14.6599	14.6599	8.8000e-004	0.0000	14.6818
Worker	8.0700e-003	6.0500e-003	0.0697	2.1000e-004	0.0219	1.7000e-004	0.0221	5.8200e-003	1.6000e-004	5.9800e-003	0.0000	19.0831	19.0831	5.3000e-004	0.0000	19.0962
Total	**9.8200e-003**	**0.0623**	**0.0849**	**3.6000e-004**	**0.0257**	**2.8000e-004**	**0.0260**	**6.9100e-003**	**2.6000e-004**	**7.1700e-003**	**0.0000**	**33.7430**	**33.7430**	**1.4100e-003**	**0.0000**	**33.7780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1441	1.5266	1.6611	2.9400e-003		0.0677	0.0677		0.0635	0.0635	0.0000	257.0649	257.0649	0.0676	0.0000	258.7535
Total	**0.1441**	**1.5266**	**1.6611**	**2.9400e-003**		**0.0677**	**0.0677**		**0.0635**	**0.0635**	**0.0000**	**257.0649**	**257.0649**	**0.0676**	**0.0000**	**258.7535**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7500e-003	0.0563	0.0152	1.5000e-004	3.7800e-003	1.1000e-004	3.8900e-003	1.0900e-003	1.0000e-004	1.1900e-003	0.0000	14.6599	14.6599	8.8000e-004	0.0000	14.6818
Worker	8.0700e-003	6.0500e-003	0.0697	2.1000e-004	0.0219	1.7000e-004	0.0221	5.8200e-003	1.6000e-004	5.9800e-003	0.0000	19.0831	19.0831	5.3000e-004	0.0000	19.0962
Total	**9.8200e-003**	**0.0623**	**0.0849**	**3.6000e-004**	**0.0257**	**2.8000e-004**	**0.0260**	**6.9100e-003**	**2.6000e-004**	**7.1700e-003**	**0.0000**	**33.7430**	**33.7430**	**1.4100e-003**	**0.0000**	**33.7780**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4100e-003	0.0822	0.1015	1.8000e-004		3.7200e-003	3.7200e-003		3.4900e-003	3.4900e-003	0.0000	14.6351	14.6351	4.1500e-003	0.0000	14.7388
Paving	2.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.6700e-003**	**0.0822**	**0.1015**	**1.8000e-004**		**3.7200e-003**	**3.7200e-003**		**3.4900e-003**	**3.4900e-003**	**0.0000**	**14.6351**	**14.6351**	**4.1500e-003**	**0.0000**	**14.7388**

3.6 Paving - 2022

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4100e-003	0.0822	0.1015	1.8000e-004		3.7200e-003	3.7200e-003		3.4900e-003	3.4900e-003	0.0000	14.6351	14.6351	4.1500e-003	0.0000	14.7388
Paving	2.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.6700e-003**	**0.0822**	**0.1015**	**1.8000e-004**		**3.7200e-003**	**3.7200e-003**		**3.4900e-003**	**3.4900e-003**	**0.0000**	**14.6351**	**14.6351**	**4.1500e-003**	**0.0000**	**14.7388**

3.6 Paving - 2022

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0501					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1299	0.1999	3.1000e-004		5.2600e-003	5.2600e-003		5.0900e-003	5.0900e-003	0.0000	27.2096	27.2096	6.2500e-003	0.0000	27.3659
Total	**0.0633**	**0.1299**	**0.1999**	**3.1000e-004**		**5.2600e-003**	**5.2600e-003**		**5.0900e-003**	**5.0900e-003**	**0.0000**	**27.2096**	**27.2096**	**6.2500e-003**	**0.0000**	**27.3659**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5000e-004	0.0272	7.3400e-003	7.0000e-005	1.8300e-003	5.0000e-005	1.8800e-003	5.3000e-004	5.0000e-005	5.8000e-004	0.0000	7.0856	7.0856	4.2000e-004	0.0000	7.0962
Worker	1.4000e-003	1.0500e-003	0.0121	4.0000e-005	3.8100e-003	3.0000e-005	3.8400e-003	1.0100e-003	3.0000e-005	1.0400e-003	0.0000	3.3205	3.3205	9.0000e-005	0.0000	3.3227
Total	**2.2500e-003**	**0.0282**	**0.0195**	**1.1000e-004**	**5.6400e-003**	**8.0000e-005**	**5.7200e-003**	**1.5400e-003**	**8.0000e-005**	**1.6200e-003**	**0.0000**	**10.4061**	**10.4061**	**5.1000e-004**	**0.0000**	**10.4189**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0501					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1299	0.1999	3.1000e-004		5.2600e-003	5.2600e-003		5.0900e-003	5.0900e-003	0.0000	27.2096	27.2096	6.2500e-003	0.0000	27.3659
Total	**0.0633**	**0.1299**	**0.1999**	**3.1000e-004**		**5.2600e-003**	**5.2600e-003**		**5.0900e-003**	**5.0900e-003**	**0.0000**	**27.2096**	**27.2096**	**6.2500e-003**	**0.0000**	**27.3659**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5000e-004	0.0272	7.3400e-003	7.0000e-005	1.8300e-003	5.0000e-005	1.8800e-003	5.3000e-004	5.0000e-005	5.8000e-004	0.0000	7.0856	7.0856	4.2000e-004	0.0000	7.0962
Worker	1.4000e-003	1.0500e-003	0.0121	4.0000e-005	3.8100e-003	3.0000e-005	3.8400e-003	1.0100e-003	3.0000e-005	1.0400e-003	0.0000	3.3205	3.3205	9.0000e-005	0.0000	3.3227
Total	**2.2500e-003**	**0.0282**	**0.0195**	**1.1000e-004**	**5.6400e-003**	**8.0000e-005**	**5.7200e-003**	**1.5400e-003**	**8.0000e-005**	**1.6200e-003**	**0.0000**	**10.4061**	**10.4061**	**5.1000e-004**	**0.0000**	**10.4189**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0779	0.3521	1.0470	3.9400e-003	0.3346	2.9900e-003	0.3376	0.0897	2.7800e-003	0.0925	0.0000	363.9994	363.9994	0.0180	0.0000	364.4484
Unmitigated	0.0779	0.3521	1.0470	3.9400e-003	0.3346	2.9900e-003	0.3376	0.0897	2.7800e-003	0.0925	0.0000	363.9994	363.9994	0.0180	0.0000	364.4484

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Racquet Club	288.31	288.31	288.31	881,524	881,524
Total	288.31	288.31	288.31	881,524	881,524

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
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Racquet Club	16.60	8.40	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Parking Lot	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Racquet Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	65.1261	65.1261	1.5400e-003	3.2000e-004	65.2594
NaturalGas Mitigated	1.0000e-003	9.1000e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9100	9.9100	1.9000e-004	1.8000e-004	9.9689
NaturalGas Unmitigated	1.0000e-003	9.1000e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9100	9.9100	1.9000e-004	1.8000e-004	9.9689

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	185706	1.0000e-003	9.1000e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9100	9.9100	1.9000e-004	1.8000e-004	9.9689
Total		**1.0000e-003**	**9.1000e-003**	**7.6500e-003**	**5.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**9.9100**	**9.9100**	**1.9000e-004**	**1.8000e-004**	**9.9689**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Racquet Club	185706	1.0000e-003	9.1000e-003	7.6500e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9100	9.9100	1.9000e-004	1.8000e-004	9.9689
Total		**1.0000e-003**	**9.1000e-003**	**7.6500e-003**	**5.0000e-005**		**6.9000e-004**	**6.9000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**9.9100**	**9.9100**	**1.9000e-004**	**1.8000e-004**	**9.9689**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3045	1.6960	4.0000e-005	1.0000e-005	1.6994
Racquet Club	113886	63.4301	1.5000e-003	3.1000e-004	63.5599
Total		**65.1261**	**1.5400e-003**	**3.2000e-004**	**65.2594**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0433	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-004	7.0000e-004	0.0000	0.0000	7.5000e-004
Unmitigated	0.0433	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-004	7.0000e-004	0.0000	0.0000	7.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0382					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-004	7.0000e-004	0.0000	0.0000	7.5000e-004
Total	**0.0433**	**0.0000**	**3.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.0000e-004**	**7.0000e-004**	**0.0000**	**0.0000**	**7.5000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0382					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-004	7.0000e-004	0.0000	0.0000	7.5000e-004
Total	**0.0433**	**0.0000**	**3.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.0000e-004**	**7.0000e-004**	**0.0000**	**0.0000**	**7.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.8946	0.0199	5.0000e-004	7.5417
Unmitigated	6.8946	0.0199	5.0000e-004	7.5417

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0.606809 / 0.371915	6.8946	0.0199	5.0000e-004	7.5417
Total		**6.8946**	**0.0199**	**5.0000e-004**	**7.5417**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0.606809 / 0.371915	6.8946	0.0199	5.0000e-004	7.5417
Total		**6.8946**	**0.0199**	**5.0000e-004**	**7.5417**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.8709	0.7016	0.0000	29.4097
Unmitigated	11.8709	0.7016	0.0000	29.4097

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	58.48	11.8709	0.7016	0.0000	29.4097
Total		**11.8709**	**0.7016**	**0.0000**	**29.4097**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	58.48	11.8709	0.7016	0.0000	29.4097
Total		**11.8709**	**0.7016**	**0.0000**	**29.4097**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation