APPENDIX A

AIR QUALITY AND GHG REPORT VOIGT PARKING STRUCTURE PROJECT

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AIR QUALITY REPORT
UC SAN DIEGO VOIGT PARKING STRUCTURE PROJECT

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UC San Diego Project No. 966625

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1.0 INTRODUCTION

1.1 Introduction

The University of California, San Diego (UC San Diego) has proposed to construct a four-story parking structure on a 6.63-acre site that is comprised of surface parking lot P503 and undeveloped park lands immediately adjacent to the west of the surface parking lot. The project site is located south of Voigt Drive and west of Engineer Lane. The proposed parking structure is necessary in order to ensure that continued parking demand and facility access needs are adequately met in the Warren College Neighborhood on the UC San Diego campus. This report has been prepared to analyze the potential air quality impacts resulting from construction and operation of the proposed project.

1.2 Purpose

The purpose of this Air Quality Report is to provide adequate information to make appropriate planning decisions and to make determinations regarding compliance with applicable regulations. This report evaluates construction-only and cumulative air quality impacts that may result from the proposed project. This report was prepared in accordance with the University of California California Environmental Quality Act (CEQA) Handbook that is used to review discretionary projects and environmental documents pursuant to CEQA.

1.3 Project Description

The proposed project would involve the construction of an approximately 365,697-GSF, four-story, two-bay parking structure that would support up to approximately 840 parking spaces for staff, students, and visitors. In order to minimize the overall footprint of the proposed project and the associated encroachment into the Park land use area to the west of surface parking lot P503, the parking structure would be built into the existing slope on the project site. The parking structure itself would be no taller than 29 feet above the existing grade of Voigt Drive and 8 feet above Engineer lane. Railings, rooftop equipment, elevator overrides, or mechanical equipment exceeding this height would be integrated into the overall parking structure design or screened appropriately. The proposed project would involve the demolition of the majority of the existing surface parking lot P503 (including the removal of 49 parking spaces), clearing existing vegetation (including approximately 150 mature eucalyptus trees and approximately 1.43 acres of Diegan coastal sage scrub), and grading and fill of the slope to the west of the existing surface parking lot. The proposed project would observe a minimum 45-foot setback from all adjacent buildings, and a 25-foot setback from Voigt Drive and a 20-foot setback from Engineer Lane in order to accommodate adequate sidewalk and planting area. Additionally, the proposed parking structure would be setback 50 feet from wetland habitat located to the west of project site.

As described further in Section 2.8.5, *Circulation/Parking*, the proposed parking structure would include intersection improvements to provide right-in/right-out vehicle access along Voigt Drive (Third Level) and right-in/left-out vehicle access along Engineer Lane (Fourth Level). The proposed project would modify the four-way stop-controlled intersection of Voigt Drive and

Engineer Lane, including widening for vehicular queuing as well as improvements to intersection crossings and sidewalks. Additional improvements along Voigt Drive would include the removal of existing on-street parking on the westbound side of the roadway to support striping of a new Class II bicycle lane to replace the existing sharrows.[1] The proposed parking structure would also incorporate a Live Roof[2] that includes various multi-modal circulation improvements, such as pedestrian and bicycle pathways that would provide connections to surrounding areas within the Warren College Neighborhood. The proposed project would also widen the existing narrow pedestrian path that runs east to west along the southern edge of the nearby canyon, in order to provide a dedicated bicycle lane and develop a more formalized multi-modal connection between Hopkins Lane and Warren Mall, which is a priority project identified in the 2012 Bicycle and Pedestrian Master Planning Study (UC San Diego 2012).

The proposed parking structure would include Americans with Disabilities Act (ADA)-accessible parking spaces near elevators on the Fourth Level closest to the main egress locations to the exterior of the structure, two elevators and staircases, an ADA-accessible bathroom, custodial closets, a maintenance/storage room and utility room, infrastructure for security systems (e.g., Blue Light/Intercom, campus phone, robbery alarm, and other measures), and a network hub room. The proposed project, like all new buildings on campus, would include sprinklers and appropriate access/egress routes for fire-fighting and evacuation. The campus Fire Marshal is responsible for campus-wide fire prevention and provision of services such as plan review and construction inspections to ensure conformance with California building and fire codes, and would be responsible for reviewing and approving plans for the proposed project.

Construction of the proposed project would demolition of existing pavements and removal of approximately 600-feet of existing storm drain lines beneath the footprint of the proposed parking structure. Preparation of the project site for the proposed parking structure would include mass excavation (particularly along the existing slope), export of cut, fine grading, and construction of the proposed parking structure. The construction of approximately 315 linear feet of retaining walls would be required along the northern and eastern edges of the building to provide geotechnical stability for the proposed areaways. Additionally, construction would also include the trenching of approximately 570-feet of new storm drain lines to the southeast of the proposed parking structure. The construction contractor would use an on-site staging area and soil stockpile area located on surface parking lot P502, which would temporarily remove approximately 85 parking spaces in the southeast corner of the parking lot throughout the duration of construction. Throughout the proposed construction activities, the entire project boundary would be fenced. Prior to any grading activities, a minimum 25-foot setback from the wetland boundary to the west would be demarcated by a chain-link fence which would remain in place throughout the duration of all construction activities. with a primary construction entrance off of Engineer Lane. Access through the site would be maintained for emergency vehicles along Voigt Drive.

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1 *Sharrows* are street markings indicating that vehicles are required to share the road with bicycles.

[2] A *Live Roof*, or green roof, is a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. Live roofs serve several purposes, such as absorbing rainwater, providing insulation, creating habitat and providing a more aesthetically pleasing landscape. Additionally, live roofs help to mitigate the urban heat island effect and may contribute points to the Parksmart certification.

Construction is anticipated to take approximately 12 to 16 months. Construction activities would be expected to follow University standard hours of 7:00 AM to 7:00 PM Monday through Saturday. There would be no major utility interruptions during the two phases of construction. The dedicated utility shutdown coordinator would proactively coordinate any utility service shutdowns, cut-overs, and connections well in advance to ensure they coincide with a time that provides the least impact to surrounding facilities and other nearby construction activities.

2.0 ENVIRONMENTAL SETTINGS

2.1 Existing Setting

The proposed project is located on an approximately 6.63-acre site that is comprised of surface parking lot P503 and undeveloped lands immediately adjacent to the west of the surface parking lot designated as Park land. The topography of the project site slopes steeply downward to the west – at 32 percent grade – from an elevation of approximately 355 feet above mean sea level (AMSL) at surface parking lot P503 to an elevation at 315 feet AMSL at the western edge of the project site. The existing vegetation ono the project site – to the west of surface parking lot P503 - primarily consists of eucalyptus woodland transitioning downhill into Diegan coastal sage scrub habitat. Further west of the project site, wetland habitat characterized by southern willow scrub and disturbed mule fat scrub is located approximately 50 feet from the edge of the proposed parking structure. Areas to the north and east of the project site are developed and include the Jacobs School of Engineering, located approximately 50 feet to the east, Geisel Library, located approximately 350 feet to the east, Goldberg Hall, located approximately 580 feet to the northeast, and the Computer Science and Engineering Building (EBU3B), located approximately 600 feet to the east.

2.2 Climate and Meteorology

The project site is located in the San Diego Air Basin (SDAB) which is regulated by the San Diego Air Pollution Control District (SDAPCD). The climate in the proposed project area is classified as a Mediterranean climate, with warm, dry summers and mild, wet winters. Average annual precipitation is 10.18 inches. Most precipitation occurs between the months of October and April. The normal high temperature in January is 64.7 degrees Fahrenheit (°F) with a normal low of 48°F. In July, the normal high temperature is 74.8°F and the normal low is 64.4°F.

One of the main determinants of the climatology is a persistent high-pressure area (the Pacific High) in the eastern Pacific Ocean. In the summer, this pressure center is located well to the north, causing storm tracks to be directed north of San Diego. When the Pacific High moves southward during the winter, this pattern changes, and low-pressure storms are brought into the region, causing widespread precipitation. The semi-permanent high pressure cell can also create temperature inversions, where a warmer mass of air sits above a cooler mass of air, which can result in decreased atmospheric dispersion often trapping smog close to the ground, and reducing the local air quality. The types of inversions include subsidence and radiation. A subsidence inversion generally occurs during warmer months as descending air associated with the high pressure cell meets cool marine air. The radiation inversion occurs on cool winter nights when air close to the ground cools by heat radiation while the air above the ground retains its warmer temperature (County of San Diego 2007).

2.3 Existing Air Quality in the Project Area

Air quality laws and regulations have established two wide-ranging categories of air pollutants that include “criteria air pollutants” and “toxic air contaminants”. Criteria air pollutants are particle pollution, which are often referred to as particulate matter, carbon monoxide, sulfur oxides, nitrogen oxides, lead and ground-level ozone. This set of common pollutants are regulated by

both federal and state governments standards that are based on ambient air quality criteria in regards to both health and environmental effects. Toxic air contaminants (TACs) are substances in which there are no ambient air quality standards. However, TACs are known to cause adverse health effects, including the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. Some examples of TACs include asbestos, certain metals, and certain aromatic and chlorinated hydrocarbons. TACs are generated by a number of sources including both stationary sources such as gas stations and laboratories; and area sources such as landfills.

Table 2-1.
California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Particulate Matter with an aerodynamic diameter of 10 micros or less (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		-		
Particulate Matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$)	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary 15. 0 µg/m^3	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 milligrams per cubic meter [mg/m^3])	Non-Dispersive Infrared Photometry (NDIR)	9.0 ppm (10mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23mg/m^3)		35 ppm (40mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7mg/m^3)		-		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3)	Same as Primary Standard* 98th percentile, averaged over 3 years	Gas Phase Chemiluminescence

Table 2-1.
California and National Ambient Air Quality Standards (Cont.)

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Nitrogen Dioxide (NO_2) (Cont.)	1-Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	-	Gas Phase Chemiluminescence
Sulfur Dioxide (SO_2)	24-Hour	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	-	Ultraviolet Fluorescence; Spectophotometry (Pararosaniline Method)
	3-Hour	-		-	0.5 ppm (1300 µg/m^3)	
	1-Hour _____ Annual Arithmetic Mean	0.25 ppm (665 µg/m^3) _____ -		75 ppb (196 µg/m^3)** 99th percentile of 1 hour daily concentrations, averaged over 3 years _____ 0.030 ppm (for certain areas)	-	
Lead (Pb)	30-Day Average	1.5 µg/m^3	Atomic Absorption	-	-	-
	Calendar Quarter	-		1.5 µg/m^3 (for certain areas)	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m^3		
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No National Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography	No National Standards		
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence	No National Standards		
Vinyl Chloride	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography	No National Standards		

Source: California Air Resources Board. Available at: www.arb.ca.gov [Accessed 6 June 2017].

2.4 Background Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring stations to the project location are the Del Mar – Winston School monitoring station which is located approximately 5.6 miles to the north of the campus in the Del Mar area and measures O_3, the Beardsley Street monitoring station which is located approximately 13.2 miles to the south of the campus and measures CO and SO_2, and the Kearny Villa Road monitoring station which is located approximately 7.6 miles to the east of the campus and measures NO_2, $PM_{2.5}$, PM_{10} and O_3.

The SDAB is currently designated nonattainment for O_3, both 1-hour and 8-hour, and particulate matter, PM_{10} and $PM_{2.5}$ under the California Ambient Air Quality Standards (CAAQS). It is designated attainment for CO, NO_2, SO_2, lead, and sulfates. Table 2 summarizes San Diego County's federal and state attainment designations for each of the criteria pollutants.

Table 2-2.
San Diego County Attainment Status

Criteria Pollutant	Federal Designation	State Designation
Ozone (O_3) (8-Hour)	Nonattainment	Nonattainment
Ozone (O_3) (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Unclassifiable **	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified

** The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.*
*** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.*
Source: SDAPCD 2016.

3.0 REGULATORY FRAMEWORK

Federal, state, and local authorities have adopted rules and regulations requiring evaluation of impacts a project may have on air quality and appropriate mitigation for air pollutant emissions. Air quality is determined by measured concentrations in ambient air of specific pollutants identified by the U.S. Environmental Protection Agency (USEPA) that impact public health and welfare.

The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970, and its Amendments of 1977 and 1990. The CAA requires the USEPA to establish the NAAQS, which establish concentrations of "criteria pollutants" in the ambient air which represent the maximum levels of background pollution considered to protect the public health and welfare with an adequate margin of safety. The CAA also specifies future dates for achieving compliance with the NAAQS. Primary and secondary NAAQS have been established for O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb. The NAAQS are shown, along with the CAAQS, in Table 2-1.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones.

In July 1997, the USEPA published additional standards for both particulate matter and O_3. In 2008 a revised O_3 standard of 0.075 parts per million (ppm) was set for the 8-hour standard. In 2015, both O_3 standards were revised to 0.070 ppm. The USEPA sought to refine the particulate standard by including a new standard for $PM_{2.5}$. The revised particulate standard added a new $PM_{2.5}$ 24-hour standard of 35 micrograms per cubic meter ($\mu g/m^3$). In addition to the new $PM_{2.5}$ standards, the USEPA decided to retain the existing PM_{10} 24-hour standard of 150 $\mu g/m^3$.

The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. A SIP is a compilation of goals, strategies, schedules and enforcement actions that will lead the state (including the SDAB) into compliance with all federal air quality standards. Every change in a compliance schedule or plan must be incorporated into the SIP.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The California Air Resources Board (CARB) has established the more stringent CAAQS for the six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. The CARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The CARB is responsible for the development, adoption, and enforcement of the state's motor vehicle emissions program, as well as the adoption of the CAAQS. The CARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS. The local air district has the

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

The SDAPCD, with input from the San Diego Association of Governments (SANDAG) is responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, and most recently in 2009, with the 2016 revision coming out soon. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The SDAPCD has also developed the air basin's input to the SIP, which is required under the CAA for areas that are out of attainment of air quality standards. The SIP includes the SDAPCD's plans and control measures for attaining the O_3 NAAQS. The SIP is also updated on a triennial basis. The latest SIP update, which included an 8-hour O_3 attainment plan, was submitted by the CARB to the USEPA in 2012, and an updated 2016 State SIP Strategy is proposed. The attainment schedule in the 2012 SIP update called for the SDAB to prepare baseline emission inventories for all areas exceeding the NAAQS within two years of designation.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the 18 cities within the San Diego region and by the County as part of the development of the County's General Plan. As such, projects that propose development that is consistent with the growth anticipated by the general plans and SANDAG's growth forecasts would be consistent with the RAQS and the SIP. In the event that a project would propose development which is less dense than anticipated within the general plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the general plan and SANDAG's growth projections, the project might be in conflict with the RAQS and SIP, and might have a significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for O_3. The California Clean Air Act requires areas designated as nonattainment of state ambient air quality standards for O_3, CO, SO_2 and NO_2 to prepare and implement plans to attain the standards. There are currently no requirements to prepare an implementation plan under California state rules.

4.0 THRESHOLDS OF SIGNIFICANCE

Significance criteria used to evaluate potential air quality impacts associated with the proposed project are established in the UC San Diego 2004 Long Range Development Plan (LRDP) EIR and are based on the University of California CEQA Handbook and Appendix G of the CEQA Guidelines. A project would have a significant environmental impact if it would:

1. Conflict or obstruct the implementation of the applicable air quality plan;
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase to any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. This includes releasing emissions which exceed quantitative standards for ozone precursors;
4. Create objectionable odors affecting a substantial number of people.

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation; or (b) result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or exceed quantitative thresholds for O_3 precursors, NO_X and volatile organic compounds (VOCs), project emissions may be evaluated based on the quantitative emission thresholds established by the APCD. As part of its air quality permitting process, the APCD has established thresholds in Rule 20.2 and Rule 20.3 for the preparation of Air Quality Impact Assessments (AQIA). In the event emissions exceed the thresholds in Table 4-1, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the State and Federal Ambient Air Quality Standards, including appropriate background levels. For nonattainment pollutants O_3, including O_3 precursors NO_x and VOCs, as well as PM_{10} and $PM_{2.5}$, if emissions exceed the screening-level thresholds shown in Table 4-1, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. The screening thresholds are included in Table 4-1.

Table 4-1.
Screening Level Thresholds for Air Quality Impact Analysis

Pollutant	Pounds per Hour	Pounds per Day	Tons per Year
Carbon Monoxide (CO)	100	550	100
Nitrogen Oxides (NOx)	25	250	40
Respirable Particulate Matter (PM_{10})	-	100	15
Fine Particulate Matter ($PM_{2.5}$)	-	55	10
Oxides of Sulfur (SOx)	25	250	40
Lead (Pb)	-	3.2	0.6
Reactive Organic Gases (ROG)	-	137	15

Sources: City of San Diego 2011; SDAPCD Rule 1501, 20.2 (d)(2); USEPA 2005.

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs.

The impacts associated with the proposed project were evaluated for significance based on the thresholds mentioned above. The California Emission Estimator Model (CalEEMod) version 2016.3.1 was used to estimate emissions generated from construction activities. CalEEMod uses basin-specific emission factors for San Diego County. To calculate on-road vehicle emissions during construction, CalEEMod uses Emissions Factor Model (EMFAC) 2014, which is the most recent motor vehicle emission factor model of ARB. Operational vehicle emission factors are based on EMFAC2014. To calculate the fugitive dust emissions from on-road vehicles driving over paved and unpaved roads during both construction and operation, CalEEMod uses emission factors from USEPA's AP-42 for paved roads (January 2011 edition) and unpaved roads (November 2006 edition).

5.0 IMPACTS

5.1 Conformance to Federal and State Ambient Air Quality Standards

The proposed project would result in emissions of air pollutants from construction and operational activities. Construction emissions would be associated with fugitive dust, heavy construction equipment, construction workers commuting to and from the site, export hauling, and construction material deliveries to the site. The emissions associated with construction would be short-term and temporary in nature, occurring over an approximately 14-month period. Operational emissions would be associated with energy use of the project, and mobile emissions from firefighters commuting to and from the site. All of the project air pollutant emissions are estimated to be below screening-level thresholds established by the APCD.

5.1.1 Construction Impacts

Emissions of pollutants such as fugitive dust and heavy equipment exhaust would be generated during construction and would be concentrated in the immediate vicinity of the project site. Construction duration is estimated to be approximately 12 to 16 months. Standard daytime operating hours would be used (7:00 AM – 7:00 PM) with equipment assumed to be operational for 5 to 8 hours per day. Heavy equipment that would be used on-site for some or all of the grading and excavation could include dozers, graders, scrapers, tractors, loaders, backhoes, and a water truck. Demolition could require use of dozers, tractors, loaders, backhoes, and other general industrial equipment. Paving could require use of cement mixers, pavers, rollers, tractors, loaders, and backhoes. For the purposes of evaluating potential impacts from construction, the maximum daily construction requirements were used for the model calculations, resulting in a worst-case evaluation of the potential maximum daily emissions. This included worker and vendor trips to the site.

Table 5-1 shows the estimated maximum daily emissions from construction activities over the approximate 12- to 16-month construction period. As summarized in Table 5-1, project criteria pollutant emissions are all below the daily thresholds of significance. Table 5-2 shows the estimated maximum annual emissions from construction activities. Refer to Appendix A for detailed emissions calculations.

The project would result in emission of diesel particulate matter from heavy construction equipment and vehicles accessing the site. However, due to the temporary nature of the project's construction phase, and because the project would not generate a significant amount of diesel emissions from construction equipment or vehicles in any single location, the project would not result in a significant health risk. Project construction would also result in localized minor amounts of odor compounds associated with diesel heavy equipment exhaust. Because the construction equipment would be temporarily operating at various locations throughout the construction site, the proposed project is not expected to have a significant impact due to odors.

Table 5-1.
Total Peak Mitigated Construction Emissions, lbs/day*
UC San Diego Voigt Parking Structure

	Emission Source	***ROG***	***NO_x***	***CO***	***SO_2***	***PM_{10}***	***$PM_{2.5}$***
Demolition 2018	Fugitive Dust	0	0	0	0	1.3368	0.2024
	Off-Road Emissions	3.7190	38.3225	22.3040	0.0388	1.9386	1.8048
	Hauling	0.1502	5.1275	1.1250	0.0128	0.2991	0.0959
	Vendor	0	0	0	0	0	0
	Worker	0.0721	0.0516	0.4871	0.0014	0.1241	0.0335
	TOTAL	**3.9413**	**43.5016**	**23.9161**	**0.0530**	**3.6986**	**2.1366**
	Emission Source	***ROG***	***NO_x***	***CO***	***SO_2***	***PM_{10}***	***$PM_{2.5}$***
Site Preparation 2018	Fugitive Dust	0	0	0	0	6.9103	3.7985
	Off-Road Emissions	4.5627	48.1988	22.4763	0.0380	2.5769	2.3708
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0866	0.0620	0.6162	0.0016	0.1489	0.0402
	TOTAL	**4.6493**	**48.2608**	**23.0925**	**0.0396**	**9.6362**	**6.2095**
	Emission Source	***ROG***	***NO_x***	***CO***	***SO_2***	***PM_{10}***	***$PM_{2.5}$***
Grading 2018	Fugitive Dust	0	0	0	0	2.3483	1.2710
	Off-Road Emissions	2.7733	30.6725	16.5770	0.0297	1.5513	1.4272
	Hauling	0	0	0	0	0	0
	Vendor	0	0	0	0	0	0
	Worker	0.0721	0.0516	0.5135	0.0014	0.1241	0.0335
	TOTAL	**2.8454**	**30.7241**	**17.0905**	**0.0311**	**4.0237**	**2.7317**
	Emission Source	***ROG***	***NO_x***	***CO***	***SO_2***	***PM_{10}***	***$PM_{2.5}$***
Building Construction 2018	Off-Road Emissions	2.6795	23.3900	17.5804	0.0269	1.4999	1.4099
	Hauling	0	0	0	0	0	0
	Vendor	0.3225	7.9187	2.0934	0.0167	0.4690	0.1771
	Worker	0.7405	0.5302	5.2718	0.0139	1.2742	0.3440
	TOTAL	**3.7425**	**31.8389**	**24.9456**	**0.0575**	**3.2431**	**1.9310**
	Emission Source	***ROG***	***NO_x***	***CO***	***SO_2***	***PM_{10}***	***$PM_{2.5}$***
Building Construction 2019	Off-Road Emissions	2.3612	21.0788	17.1638	0.0269	1.2899	1.2127
	Hauling	0	0	0	0	0	0
	Vendor	0.2880	7.4453	1.9206	0.0166	0.4589	0.1673
	Worker	0.6839	0.4739	4.7650	0.0135	1.2741	0.3439

	TOTAL	**3.3331**	**28.9980**	**23.8494**	**0.0570**	**3.0229**	**1.7239**
	Emission Source	***ROG***	***NO_x***	***CO***	***SO_2***	***PM_{10}***	***$PM_{2.5}$***
Maximum Daily Emissions	**TOTAL PEAK EMISSIONS**	**4.6493**	**48.2608**	**24.9456**	**0.0575**	**9.6362**	**6.2095**
	Screening Level Threshold (lbs/day)	137	250	550	250	100	55
	Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

*Notes: * Daily emission rates were calculated using worst case scenario of each phase. Paving, architectural coating, and parking space striping emissions were included in the Construction Phase.*

Source: See Attachment A for detailed CalEEMod reports.

Table 5-2.
Total Mitigated Construction Emissions (tons/year)
UC San Diego Voigt Parking Structure

Year	Emission Source	ROG	NO_x	CO	SOx	PM_{10}	$PM_{2.5}$
2018	TOTAL	0.5080	4.7676	3.2903	0.0071	0.5358	0.3333
2019	TOTAL	0.2015	1.8027	1.4690	0.0034	0.1850	0.1063
Maximum Annual Emissions	**MAXIMUM**	**0.5080**	**4.7676**	**3.2903**	**0.0071**	**0.5358**	**0.3333**
	Screening Level Threshold (tons/yr)	15	40	100	40	15	10
	Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: See Attachment A for detailed CalEEMod reports.

5.1.2 Operational Impacts

Operational impacts typically are associated criteria pollutant emissions from traffic and area sources such as landscaping and energy use. Table 5-3 shows the estimated maximum daily emissions and annual emissions from operational activities of the project. Refer to Attachment A for detailed emissions calculations. As summarized in Table 5-3, project criteria pollutant emissions are all below the daily and annual thresholds of significance.

Table 5-3.
Operational Emissions
UC San Diego Voigt Parking Structure

Emission Source	ROG	NO_x	CO	SOx	PM_{10}	$PM_{2.5}$
*Peak Daily Operational Emissions (lbs/day)**						
Area	0.2074	0.0008	0.0866	0	0.0003	0.0003
Energy	0	0	0	0	0	0
Mobile	0	0	0	0	0	0
TOTAL	**0.2074**	**0.0008**	**0.0866**	**0**	**0.0003**	**0.0003**
Screening Level Threshold (lbs/day)	137	250	550	250	100	55
Above Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Annual Operational Emissions (tons/year)						
Area	0.0371	0	0.0077	0	0	0
Energy	0	0	0	0	0	0
Mobile	0	0	0	0	0	0
TOTAL	**0.0371**	**0**	**0.0077**	**0**	**0**	**0**
Screening Level Threshold (tons/year)	15	40	100	40	15	10
Above Threshold?	***No***	***No***	***No***	***No***	***No***	***No***

*Notes: * Maximum of winter and summer day mitigated emissions, from CalEEMod.*
Source: See Attachment A for detailed CalEEMod reports.

5.1.3 Impacts to Sensitive Receptors

Based on Appendix G of the CEQA Guidelines, an impact is considered significant if the implementation of the project:

- Exposes sensitive receptors to substantial pollutant concentrations;
- Increases the maximally exposed individual's cancer risk by more than 10 in one million;
- Results in a ground-level concentration of non-carcinogenic TACs that would result in a hazard index greater than 1 for the maximally exposed individual.

The construction phase of the project would result in emissions of diesel particulate matter from heavy construction equipment and vehicles accessing the site. However, due to the temporary nature of the project's construction phase, and because the project would not generate a significant amount of diesel emissions from construction equipment or vehicles in any single location, the project would not result in a significant health risk.

6.0 SUMMARY AND CONCLUSIONS

The project's potential effect on air quality was evaluated for both the construction and operation of the project. Construction emissions would include emissions associated with site grading, heavy construction equipment, and construction workers commuting to and from the site. Emissions from construction would be short-term and temporary. Operational emissions would include emissions associated with vehicle trips to and from the project site, landscaping, and energy use. Although construction emissions would be below the significance thresholds, the 2004 LRDP Program EIR, as updated by the 2010 East Campus Bed Tower (ECBT) Project EIR, concluded that cumulative PM_{10} impacts would be significant. To reduce cumulative air quality impacts caused by campus construction, 2004 LRDP Program EIR Mitigation Measures Air-CA, Air-CB and Air-CC would be incorporated into the proposed project to reduce the projects contributions to cumulative construction-related PM emissions. Implementation of the following measures would minimize the project's contribution to cumulative particulate emissions:

Air-CA

The following measures shall be implemented campus-wide to reduce PM_{10} emissions from vehicles, as feasible, and on specific projects when applicable:

- *Compliance with the UC Policy for Green Building Design and Clean Energy Standards, which guides the design of green buildings and the use of clean energy.*
- *Reduce emissions related to motor vehicle trips through refinements to the Transportation System Management program or other methods to discourage automobile use and encourage use of alternative transportation.*
- *Expand pedestrian-enhancing infrastructure to encourage pedestrian activity and discourage vehicle use.*
- *Expand bicycle facilities to encourage bicycle use instead of driving.*
- *Expand transit-enhancing infrastructure to promote the use of public transportation such as buses, light rail, and other applicable methods.*
- *Expand facilities to accommodate alternative-fuel vehicles such as electric cars and compressed natural gas vehicles.*
- *Expand on-site housing and retail services to facilitate pedestrian activity and reduce need for off-site travel.*

Air-CB

Any development on the UCSD campus shall include in all construction contracts the measures specified below to reduce PM_{10} and $PM_{2.5}$ air pollutant emissions:

- *All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or other stabilization techniques.*
- *All land clearing and grading and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.*
- *Street sweeping shall be performed regularly on roads surrounding the construction site that carry construction traffic or collect construction related dust or dirt.*
- *Revegetate exposed earth surface following construction.*
- *Limit traffic speeds on unpaved roads to 15 miles per hour.*
- *To the extent that equipment is available and cost effective, the campus shall encourage contractors to use alternate fuels and retrofit existing engines in construction equipment.*
- *Minimize idling time to a maximum of 10 minutes when construction equipment is not in use.*
- *To the extent practicable, manage operation of heavy-duty equipment (e.g., restrict operations, operate only when necessary) to reduce emissions.*

Air-CC

Campus construction contracts/specifications shall include language that requires medium and large sized construction fleets to comply with the requirements of the ARB proposed regulation for In-use Off-road Diesel Vehicles (Section 2449, Title 13, Article 4.8, California Code of Regulations, as modified).

7.0 REFERENCES

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ATTACHMENT A

CALEEMOD RESULTS

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Voigt Parking Structure

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	900.00	Space	6.60	288,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Voigt Parking Structure details

Land Use - Voigt Parking Structure details

Construction Phase - Project construction schedule.

Grading - Grading - The total quantity of cut would be approximately 97,125 cubic yards of soil, with approximately 1,760 cubic yards of fill, leaving 95,365 cubic yards of soil to be exported from the project site.

Demolition - Demolition - Concrete pavement demolished = 30,879 sf
Asphalt demolition = 39,255 sf

Energy Use -

Voigt Parking Structure - San Diego Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	230.00	315.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	30.00	6.60
tblGrading	MaterialExported	0.00	95,365.00
tblLandUse	BuildingSpaceSquareFeet	360,000.00	288,000.00
tblLandUse	LandUseSquareFeet	360,000.00	288,000.00
tblLandUse	LotAcreage	8.10	6.60
tblProjectCharacteristics	OperationalYear	2018	2019

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					
2018	0.5433	6.5262	3.5461	0.0113	0.5944	0.2416	0.8360	0.2440	0.2258	0.4699	0.0000	1,066.8524	1,066.8524	0.1554	0.0000	1,070.7381
2019	0.1896	1.6953	1.3819	3.0900e-003	0.0795	0.0829	0.1624	0.0216	0.0780	0.0996	0.0000	279.3354	279.3354	0.0435	0.0000	280.4236
Maximum	**0.5433**	**6.5262**	**3.5461**	**0.0113**	**0.5944**	**0.2416**	**0.8360**	**0.2440**	**0.2258**	**0.4699**	**0.0000**	**1,066.8524**	**1,066.8524**	**0.1554**	**0.0000**	**1,070.7381**

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					
2018	0.5433	6.5262	3.5461	0.0113	0.3062	0.2416	0.5479	0.1001	0.2258	0.3259	0.0000	1,066.8519	1,066.8519	0.1554	0.0000	1,070.7377
2019	0.1896	1.6953	1.3819	3.0900e-003	0.0795	0.0829	0.1624	0.0216	0.0780	0.0996	0.0000	279.3352	279.3352	0.0435	0.0000	280.4234
Maximum	**0.5433**	**6.5262**	**3.5461**	**0.0113**	**0.3062**	**0.2416**	**0.5479**	**0.1001**	**0.2258**	**0.3259**	**0.0000**	**1,066.8519**	**1,066.8519**	**0.1554**	**0.0000**	**1,070.7377**

	ROG	NOx	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**	**42.76**	**0.00**	**28.86**	**54.19**	**0.00**	**25.28**	**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	2-1-2018	4-30-2018	2.9093	2.9093
2	5-1-2018	7-31-2018	1.9311	1.9311
3	8-1-2018	10-31-2018	1.3183	1.3183
4	11-1-2018	1-31-2019	1.2804	1.2804
5	2-1-2019	4-30-2019	1.1583	1.1583
6	5-1-2019	7-31-2019	0.3116	0.3116
		Highest	2.9093	2.9093

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	0.0194	8.0000e-005	8.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0161	0.0161	4.0000e-005	0.0000	0.0172
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	265.4210	265.4210	0.0107	2.2100e-003	266.3468
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0194**	**8.0000e-005**	**8.3500e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**265.4371**	**265.4371**	**0.0107**	**2.2100e-003**	**266.3639**

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	0.0194	8.0000e-005	8.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0161	0.0161	4.0000e-005	0.0000	0.0172
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	265.4210	265.4210	0.0107	2.2100e-003	266.3468
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0194**	**8.0000e-005**	**8.3500e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**265.4371**	**265.4371**	**0.0107**	**2.2100e-003**	**266.3639**

	ROG	NOx	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

Voigt Parking Structure - San Diego Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2018	2/23/2018	6	20	
2	Site Preparation	Site Preparation	2/24/2018	3/13/2018	6	15	
3	Grading	Grading	3/14/2018	5/22/2018	6	60	
4	Building Construction	Building Construction	5/23/2018	5/24/2019	6	315	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.6

Acres of Paving: 6.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	319.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	11,921.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	121.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2018

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					0.0350	0.0000	0.0350	5.2900e-003	0.0000	5.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1241	35.1241	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**	**0.0350**	**0.0194**	**0.0543**	**5.2900e-003**	**0.0181**	**0.0233**	**0.0000**	**35.1241**	**35.1241**	**9.6800e-003**	**0.0000**	**35.3660**

3.2 Demolition - 2018

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	1.4800e-003	0.0518	0.0108	1.3000e-004	2.7300e-003	2.0000e-004	2.9300e-003	7.5000e-004	1.9000e-004	9.4000e-004	0.0000	12.5691	12.5691	1.1300e-003	0.0000	12.5975
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	6.4000e-004	5.1000e-004	4.8700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1577	1.1577	4.0000e-005	0.0000	1.1587
Total	**2.1200e-003**	**0.0523**	**0.0157**	**1.4000e-004**	**3.9300e-003**	**2.1000e-004**	**4.1400e-003**	**1.0700e-003**	**2.0000e-004**	**1.2700e-003**	**0.0000**	**13.7268**	**13.7268**	**1.1700e-003**	**0.0000**	**13.7561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.0800e-003	0.0000	7.0800e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1240	35.1240	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**	**7.0800e-003**	**0.0194**	**0.0265**	**1.0700e-003**	**0.0181**	**0.0191**	**0.0000**	**35.1240**	**35.1240**	**9.6800e-003**	**0.0000**	**35.3660**

3.2 Demolition - 2018

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	1.4800e-003	0.0518	0.0108	1.3000e-004	2.7300e-003	2.0000e-004	2.9300e-003	7.5000e-004	1.9000e-004	9.4000e-004	0.0000	12.5691	12.5691	1.1300e-003	0.0000	12.5975
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	6.4000e-004	5.1000e-004	4.8700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1577	1.1577	4.0000e-005	0.0000	1.1587
Total	**2.1200e-003**	**0.0523**	**0.0157**	**1.4000e-004**	**3.9300e-003**	**2.1000e-004**	**4.1400e-003**	**1.0700e-003**	**2.0000e-004**	**1.2700e-003**	**0.0000**	**13.7268**	**13.7268**	**1.1700e-003**	**0.0000**	**13.7561**

3.3 Site Preparation - 2018

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					0.1355	0.0000	0.1355	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3615	0.1686	2.9000e-004		0.0193	0.0193		0.0178	0.0178	0.0000	26.0699	26.0699	8.1200e-003	0.0000	26.2728
Total	**0.0342**	**0.3615**	**0.1686**	**2.9000e-004**	**0.1355**	**0.0193**	**0.1548**	**0.0745**	**0.0178**	**0.0923**	**0.0000**	**26.0699**	**26.0699**	**8.1200e-003**	**0.0000**	**26.2728**

3.3 Site Preparation - 2018

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	5.8000e-004	4.6000e-004	4.3800e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0419	1.0419	4.0000e-005	0.0000	1.0428
Total	**5.8000e-004**	**4.6000e-004**	**4.3800e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0900e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.0419**	**1.0419**	**4.0000e-005**	**0.0000**	**1.0428**

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					0.0274	0.0000	0.0274	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3615	0.1686	2.9000e-004		0.0193	0.0193		0.0178	0.0178	0.0000	26.0699	26.0699	8.1200e-003	0.0000	26.2728
Total	**0.0342**	**0.3615**	**0.1686**	**2.9000e-004**	**0.0274**	**0.0193**	**0.0468**	**0.0151**	**0.0178**	**0.0329**	**0.0000**	**26.0699**	**26.0699**	**8.1200e-003**	**0.0000**	**26.2728**

3.3 Site Preparation - 2018

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	5.8000e-004	4.6000e-004	4.3800e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0419	1.0419	4.0000e-005	0.0000	1.0428
Total	**5.8000e-004**	**4.6000e-004**	**4.3800e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0900e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.0419**	**1.0419**	**4.0000e-005**	**0.0000**	**1.0428**

3.4 Grading - 2018

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					0.1909	0.0000	0.1909	0.1007	0.0000	0.1007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0832	0.9202	0.4973	8.9000e-004		0.0465	0.0465		0.0428	0.0428	0.0000	81.3206	81.3206	0.0253	0.0000	81.9535
Total	**0.0832**	**0.9202**	**0.4973**	**8.9000e-004**	**0.1909**	**0.0465**	**0.2374**	**0.1007**	**0.0428**	**0.1435**	**0.0000**	**81.3206**	**81.3206**	**0.0253**	**0.0000**	**81.9535**

3.4 Grading - 2018

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	0.0552	1.9350	0.4037	4.7600e-003	0.1020	7.5300e-003	0.1095	0.0280	7.2100e-003	0.0352	0.0000	469.7072	469.7072	0.0424	0.0000	470.7668
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	1.5200e-003	0.0146	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.4730	3.4730	1.2000e-004	0.0000	3.4760
Total	**0.0571**	**1.9365**	**0.4184**	**4.8000e-003**	**0.1056**	**7.5600e-003**	**0.1132**	**0.0290**	**7.2300e-003**	**0.0362**	**0.0000**	**473.1802**	**473.1802**	**0.0425**	**0.0000**	**474.2428**

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					0.0387	0.0000	0.0387	0.0204	0.0000	0.0204	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0832	0.9202	0.4973	8.9000e-004		0.0465	0.0465		0.0428	0.0428	0.0000	81.3205	81.3205	0.0253	0.0000	81.9534
Total	**0.0832**	**0.9202**	**0.4973**	**8.9000e-004**	**0.0387**	**0.0465**	**0.0852**	**0.0204**	**0.0428**	**0.0632**	**0.0000**	**81.3205**	**81.3205**	**0.0253**	**0.0000**	**81.9534**

3.4 Grading - 2018

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	0.0552	1.9350	0.4037	4.7600e-003	0.1020	7.5300e-003	0.1095	0.0280	7.2100e-003	0.0352	0.0000	469.7072	469.7072	0.0424	0.0000	470.7668
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	1.5200e-003	0.0146	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.4730	3.4730	1.2000e-004	0.0000	3.4760
Total	**0.0571**	**1.9365**	**0.4184**	**4.8000e-003**	**0.1056**	**7.5600e-003**	**0.1132**	**0.0290**	**7.2300e-003**	**0.0362**	**0.0000**	**473.1802**	**473.1802**	**0.0425**	**0.0000**	**474.2428**

3.5 Building Construction - 2018

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	0.2559	2.2338	1.6789	2.5700e-003		0.1432	0.1432		0.1347	0.1347	0.0000	227.0677	227.0677	0.0556	0.0000	228.4585
Total	**0.2559**	**2.2338**	**1.6789**	**2.5700e-003**		**0.1432**	**0.1432**		**0.1347**	**0.1347**	**0.0000**	**227.0677**	**227.0677**	**0.0556**	**0.0000**	**228.4585**

3.5 Building Construction - 2018

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	0.0236	0.5992	0.1648	1.2400e-003	0.0298	4.6600e-003	0.0345	8.6000e-003	4.4600e-003	0.0131	0.0000	120.1387	120.1387	9.9000e-003	0.0000	120.3862
Worker	0.0494	0.0391	0.3751	9.9000e-004	0.0927	6.8000e-004	0.0934	0.0246	6.3000e-004	0.0253	0.0000	89.1825	89.1825	3.0800e-003	0.0000	89.2594
Total	**0.0729**	**0.6383**	**0.5399**	**2.2300e-003**	**0.1225**	**5.3400e-003**	**0.1278**	**0.0332**	**5.0900e-003**	**0.0383**	**0.0000**	**209.3211**	**209.3211**	**0.0130**	**0.0000**	**209.6456**

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	0.2559	2.2337	1.6789	2.5700e-003		0.1432	0.1432		0.1347	0.1347	0.0000	227.0674	227.0674	0.0556	0.0000	228.4582
Total	**0.2559**	**2.2337**	**1.6789**	**2.5700e-003**		**0.1432**	**0.1432**		**0.1347**	**0.1347**	**0.0000**	**227.0674**	**227.0674**	**0.0556**	**0.0000**	**228.4582**

3.5 Building Construction - 2018

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	0.0236	0.5992	0.1648	1.2400e-003	0.0298	4.6600e-003	0.0345	8.6000e-003	4.4600e-003	0.0131	0.0000	120.1387	120.1387	9.9000e-003	0.0000	120.3862
Worker	0.0494	0.0391	0.3751	9.9000e-004	0.0927	6.8000e-004	0.0934	0.0246	6.3000e-004	0.0253	0.0000	89.1825	89.1825	3.0800e-003	0.0000	89.2594
Total	**0.0729**	**0.6383**	**0.5399**	**2.2300e-003**	**0.1225**	**5.3400e-003**	**0.1278**	**0.0332**	**5.0900e-003**	**0.0383**	**0.0000**	**209.3211**	**209.3211**	**0.0130**	**0.0000**	**209.6456**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1464	1.3069	1.0642	1.6700e-003		0.0800	0.0800		0.0752	0.0752	0.0000	145.7646	145.7646	0.0355	0.0000	146.6523
Total	**0.1464**	**1.3069**	**1.0642**	**1.6700e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**145.7646**	**145.7646**	**0.0355**	**0.0000**	**146.6523**

3.5 Building Construction - 2019

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	0.0137	0.3658	0.0983	8.0000e-004	0.0193	2.5300e-003	0.0219	5.5800e-003	2.4200e-003	8.0100e-003	0.0000	77.4186	77.4186	6.2100e-003	0.0000	77.5739
Worker	0.0296	0.0227	0.2195	6.2000e-004	0.0602	4.4000e-004	0.0606	0.0160	4.0000e-004	0.0164	0.0000	56.1522	56.1522	1.8100e-003	0.0000	56.1974
Total	**0.0432**	**0.3885**	**0.3178**	**1.4200e-003**	**0.0795**	**2.9700e-003**	**0.0825**	**0.0216**	**2.8200e-003**	**0.0244**	**0.0000**	**133.5708**	**133.5708**	**8.0200e-003**	**0.0000**	**133.7712**

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	0.1464	1.3069	1.0642	1.6700e-003		0.0800	0.0800		0.0752	0.0752	0.0000	145.7644	145.7644	0.0355	0.0000	146.6522
Total	**0.1464**	**1.3069**	**1.0642**	**1.6700e-003**		**0.0800**	**0.0800**		**0.0752**	**0.0752**	**0.0000**	**145.7644**	**145.7644**	**0.0355**	**0.0000**	**146.6522**

3.5 Building Construction - 2019

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	0.0137	0.3658	0.0983	8.0000e-004	0.0193	2.5300e-003	0.0219	5.5800e-003	2.4200e-003	8.0100e-003	0.0000	77.4186	77.4186	6.2100e-003	0.0000	77.5739
Worker	0.0296	0.0227	0.2195	6.2000e-004	0.0602	4.4000e-004	0.0606	0.0160	4.0000e-004	0.0164	0.0000	56.1522	56.1522	1.8100e-003	0.0000	56.1974
Total	**0.0432**	**0.3885**	**0.3178**	**1.4200e-003**	**0.0795**	**2.9700e-003**	**0.0825**	**0.0216**	**2.8200e-003**	**0.0244**	**0.0000**	**133.5708**	**133.5708**	**8.0200e-003**	**0.0000**	**133.7712**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unenclosed Parking with Elevator	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	265.4210	265.4210	0.0107	2.2100e-003	266.3468
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	265.4210	265.4210	0.0107	2.2100e-003	266.3468
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**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

	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					
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unenclosed Parking with Elevator	812160	265.4210	0.0107	2.2100e-003	266.3468
Total		**265.4210**	**0.0107**	**2.2100e-003**	**266.3468**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unenclosed Parking with Elevator	812160	265.4210	0.0107	2.2100e-003	266.3468
Total		**265.4210**	**0.0107**	**2.2100e-003**	**266.3468**

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	0.0194	8.0000e-005	8.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0161	0.0161	4.0000e-005	0.0000	0.0172
Unmitigated	0.0194	8.0000e-005	8.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0161	0.0161	4.0000e-005	0.0000	0.0172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0161	0.0161	4.0000e-005	0.0000	0.0172
Total	**0.0194**	**8.0000e-005**	**8.3500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0161**	**0.0161**	**4.0000e-005**	**0.0000**	**0.0172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0161	0.0161	4.0000e-005	0.0000	0.0172
Total	**0.0194**	**8.0000e-005**	**8.3500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0161**	**0.0161**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Voigt Parking Structure

San Diego, Summary Report

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	900.00	Space	6.60	288,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics - Voigt Parking Structure details

Land Use - Voigt Parking Structure details

Construction Phase - Project construction schedule.

Grading - Grading - The total quantity of cut would be approximately 97,125 cubic yards of soil, with approximately 1,760 cubic yards of fill, leaving 95,365 cubic yards of soil to be exported from the project site.

Demolition - Demolition - Concrete pavement demolished = 30,879 sf
Asphalt demolition = 39,255 sf

Energy Use -

2.0 Peak Daily Emissions

Peak Daily Construction Emissions

Peak Daily Construction Emissions

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
Year	Phase	lb/day											
2018	Demolition	3.9413 W	43.5017 W	23.9161 W	0.0530 S	5.8567 W	2.4635 W	3.9413 W	43.5017 W	23.9161 W	0.0530 S	3.0695 W	2.0414 W
2018	Site Preparation	4.6493 W	48.2607 W	23.0925 S	0.0397 S	20.7921 S	12.3416 S	4.6493 W	48.2607 W	23.0925 S	0.0397 S	6.3843 S	4.4219 S
2018	Grading	4.7162 W	94.5959 W	31.0776 W	0.1908 S	11.7638 W	6.0123 W	4.7162 W	94.5959 W	31.0776 W	0.1908 S	6.6900 W	3.3354 W
2018	Building Construction	3.5139 W	30.0096 W	23.3624 S	0.0509 S	2.8684 W	1.8189 W	3.5139 W	30.0096 W	23.3624 S	0.0509 S	2.8684 W	1.8189 W
2019	Building Construction	3.1241 W	27.2833 W	22.4121 S	0.0505 S	2.6504 W	1.6140 W	3.1241 W	27.2833 W	22.4121 S	0.0505 S	2.6504 W	1.6140 W
	Peak Daily Total	4.7162 W	94.5959 W	31.0776 W	0.1908 S	20.7921 S	12.3416 S	4.7162 W	94.5959 W	31.0776 W	0.1908 S	6.6900 W	4.4219 S
	Air District Threshold												
	Exceed Significance?												

Peak Daily Operational Emissions

Peak Daily Operational Emissions

Voigt Parking Structure - San Diego Air Basin, Summary Report

		Unmitigated						Mitigated					
		ROG	NOX	CO	SO2	PM10	PM2.5	ROG	NOX	CO	SO2	PM10	PM2.5
	Operational Activity	lb/day											
On-Site	Area	0.1108 S	8.6000e-004 S	0.0928 S	1.0000e-005 S	3.3000e-004 S	3.3000e-004 S	0.1108 S	8.6000e-004 S	0.0928 S	1.0000e-005 S	3.3000e-004 S	3.3000e-004 S
On-Site	Energy	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S
Off-Site	Mobile	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S	0.0000 S
	Peak Daily Total	0.1108 S	8.6000e-004 S	0.0928 S	1.0000e-005 S	3.3000e-004 S	3.3000e-004 S	0.1108 S	8.6000e-004 S	0.0928 S	1.0000e-005 S	3.3000e-004 S	3.3000e-004 S
	Air District Threshold												
	Exceed Significance?												

3.0 Annual GHG Emissions

Annual GHG

Annual GHG

		Unmitigated				Mitigated			
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
GHG Activity	Year	MT/yr							
Construction	2018	1,066.8524	0.1554	0.0000	1,070.7381	1,066.8519	0.1554	0.0000	1,070.7376
Construction	2019	279.3354	0.0435	0.0000	280.4235	279.3352	0.0435	0.0000	280.4234
Operational	2019	265.4371	0.0107	2.2135e-003	266.3650	265.4371	0.0107	2.2135e-003	266.3650
	Total								
	Significance Threshold								
	Exceed Significance?								

Voigt Parking Structure

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	900.00	Space	6.60	288,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Voigt Parking Structure details

Land Use - Voigt Parking Structure details

Construction Phase - Project construction schedule.

Grading - Grading - The total quantity of cut would be approximately 97,125 cubic yards of soil, with approximately 1,760 cubic yards of fill, leaving 95,365 cubic yards of soil to be exported from the project site.

Demolition - Demolition - Concrete pavement demolished = 30,879 sf
Asphalt demolition = 39,255 sf

Energy Use -

Voigt Parking Structure - San Diego Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	230.00	315.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	30.00	6.60
tblGrading	MaterialExported	0.00	95,365.00
tblLandUse	BuildingSpaceSquareFeet	360,000.00	288,000.00
tblLandUse	LandUseSquareFeet	360,000.00	288,000.00
tblLandUse	LotAcreage	8.10	6.60
tblProjectCharacteristics	OperationalYear	2018	2019

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					
2018	4.6558	93.9144	30.1242	0.1908	18.2141	2.5780	20.7921	9.9699	2.3717	12.3416	0.0000	20,502.5201	20,502.5201	2.4669	0.0000	20,564.1918
2019	3.0526	27.2378	22.4121	0.0505	1.3122	1.3375	2.6497	0.3552	1.2580	1.6133	0.0000	5,035.7999	5,035.7999	0.7724	0.0000	5,055.1092
Maximum	**4.6558**	**93.9144**	**30.1242**	**0.1908**	**18.2141**	**2.5780**	**20.7921**	**9.9699**	**2.3717**	**12.3416**	**0.0000**	**20,502.5201**	**20,502.5201**	**2.4669**	**0.0000**	**20,564.1918**

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					
2018	4.6558	93.9144	30.1242	0.1908	4.8834	2.5780	6.6842	2.0502	2.3717	4.4219	0.0000	20,502.5201	20,502.5201	2.4669	0.0000	20,564.1918
2019	3.0526	27.2378	22.4121	0.0505	1.3122	1.3375	2.6497	0.3552	1.2580	1.6133	0.0000	5,035.7999	5,035.7999	0.7724	0.0000	5,055.1092
Maximum	**4.6558**	**93.9144**	**30.1242**	**0.1908**	**4.8834**	**2.5780**	**6.6842**	**2.0502**	**2.3717**	**4.4219**	**0.0000**	**20,502.5201**	**20,502.5201**	**2.4669**	**0.0000**	**20,564.1918**

	ROG	NOx	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**	**68.27**	**0.00**	**60.18**	**76.70**	**0.00**	**56.75**	**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	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**	**0.0000**	**3.3000e-004**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**	**0.0000**	**0.2103**

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	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**	**0.0000**	**3.3000e-004**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**	**0.0000**	**0.2103**

	ROG	NOx	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	2/1/2018	2/23/2018	6	20	
2	Site Preparation	Site Preparation	2/24/2018	3/13/2018	6	15	
3	Grading	Grading	3/14/2018	5/22/2018	6	60	
4	Building Construction	Building Construction	5/23/2018	5/24/2019	6	315	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.6

Acres of Paving: 6.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	319.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	11,921.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	121.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2018

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					3.4949	0.0000	3.4949	0.5293	0.0000	0.5293			0.0000			0.0000
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**	**3.4949**	**1.9386**	**5.4335**	**0.5293**	**1.8048**	**2.3341**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.1460	5.0733	1.0463	0.0128	0.2787	0.0200	0.2987	0.0764	0.0191	0.0955		1,395.2335	1,395.2335	0.1230		1,398.3083
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	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**0.2099**	**5.1193**	**1.5598**	**0.0142**	**0.4019**	**0.0209**	**0.4228**	**0.1091**	**0.0199**	**0.1290**		**1,529.8172**	**1,529.8172**	**0.1276**		**1,533.0071**

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					0.7077	0.0000	0.7077	0.1072	0.0000	0.1072			0.0000			0.0000
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**	**0.7077**	**1.9386**	**2.6463**	**0.1072**	**1.8048**	**1.9120**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.1460	5.0733	1.0463	0.0128	0.2787	0.0200	0.2987	0.0764	0.0191	0.0955		1,395.2335	1,395.2335	0.1230		1,398.3083
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	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**0.2099**	**5.1193**	**1.5598**	**0.0142**	**0.4019**	**0.0209**	**0.4228**	**0.1091**	**0.0199**	**0.1290**		**1,529.8172**	**1,529.8172**	**0.1276**		**1,533.0071**

3.3 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.3 Site Preparation - 2018

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	0.0766	0.0552	0.6162	1.6200e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		161.5004	161.5004	5.5300e-003		161.6386
Total	**0.0766**	**0.0552**	**0.6162**	**1.6200e-003**	**0.1479**	**1.0600e-003**	**0.1489**	**0.0392**	**9.8000e-004**	**0.0402**		**161.5004**	**161.5004**	**5.5300e-003**		**161.6386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6584	0.0000	3.6584	2.0110	0.0000	2.0110			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**3.6584**	**2.5769**	**6.2353**	**2.0110**	**2.3708**	**4.3817**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.3 Site Preparation - 2018

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	0.0766	0.0552	0.6162	1.6200e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		161.5004	161.5004	5.5300e-003		161.6386
Total	**0.0766**	**0.0552**	**0.6162**	**1.6200e-003**	**0.1479**	**1.0600e-003**	**0.1489**	**0.0392**	**9.8000e-004**	**0.0402**		**161.5004**	**161.5004**	**5.5300e-003**		**161.6386**

3.4 Grading - 2018

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					6.3621	0.0000	6.3621	3.3566	0.0000	3.3566			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272		2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**6.3621**	**1.5513**	**7.9134**	**3.3566**	**1.4272**	**4.7839**		**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

3.4 Grading - 2018

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	1.8187	63.1959	13.0337	0.1598	3.4718	0.2486	3.7204	0.9515	0.2378	1.1893		17,379.9149	17,379.9149	1.5321		17,418.2161
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	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**1.8825**	**63.2419**	**13.5472**	**0.1612**	**3.5951**	**0.2495**	**3.8445**	**0.9842**	**0.2387**	**1.2228**		**17,514.4985**	**17,514.4985**	**1.5367**		**17,552.9149**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2883	0.0000	1.2883	0.6797	0.0000	0.6797			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272	0.0000	2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**1.2883**	**1.5513**	**2.8396**	**0.6797**	**1.4272**	**2.1069**	**0.0000**	**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

3.4 Grading - 2018

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	1.8187	63.1959	13.0337	0.1598	3.4718	0.2486	3.7204	0.9515	0.2378	1.1893		17,379.9149	17,379.9149	1.5321		17,418.2161
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	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**1.8825**	**63.2419**	**13.5472**	**0.1612**	**3.5951**	**0.2495**	**3.8445**	**0.9842**	**0.2387**	**1.2228**		**17,514.4985**	**17,514.4985**	**1.5367**		**17,552.9149**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.5 Building Construction - 2018

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	0.2424	6.1924	1.6398	0.0131	0.3182	0.0484	0.3666	0.0916	0.0463	0.1379		1,401.4924	1,401.4924	0.1111		1,404.2693
Worker	0.5150	0.3709	4.1422	0.0109	0.9940	7.1600e-003	1.0011	0.2637	6.6000e-003	0.2703		1,085.6417	1,085.6417	0.0372		1,086.5704
Total	**0.7574**	**6.5633**	**5.7819**	**0.0240**	**1.3122**	**0.0556**	**1.3678**	**0.3552**	**0.0529**	**0.4082**		**2,487.1341**	**2,487.1341**	**0.1482**		**2,490.8398**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.5 Building Construction - 2018

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	0.2424	6.1924	1.6398	0.0131	0.3182	0.0484	0.3666	0.0916	0.0463	0.1379		1,401.4924	1,401.4924	0.1111		1,404.2693
Worker	0.5150	0.3709	4.1422	0.0109	0.9940	7.1600e-003	1.0011	0.2637	6.6000e-003	0.2703		1,085.6417	1,085.6417	0.0372		1,086.5704
Total	**0.7574**	**6.5633**	**5.7819**	**0.0240**	**1.3122**	**0.0556**	**1.3678**	**0.3552**	**0.0529**	**0.4082**		**2,487.1341**	**2,487.1341**	**0.1482**		**2,490.8398**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

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	0.2163	5.8274	1.5045	0.0130	0.3182	0.0405	0.3587	0.0916	0.0388	0.1304		1,391.2782	1,391.2782	0.1074		1,393.9635
Worker	0.4751	0.3316	3.7439	0.0106	0.9940	7.0800e-003	1.0011	0.2637	6.5300e-003	0.2702		1,052.9416	1,052.9416	0.0336		1,053.7821
Total	**0.6914**	**6.1590**	**5.2484**	**0.0236**	**1.3122**	**0.0476**	**1.3598**	**0.3552**	**0.0453**	**0.4006**		**2,444.2197**	**2,444.2197**	**0.1410**		**2,447.7457**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

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	0.2163	5.8274	1.5045	0.0130	0.3182	0.0405	0.3587	0.0916	0.0388	0.1304		1,391.2782	1,391.2782	0.1074		1,393.9635
Worker	0.4751	0.3316	3.7439	0.0106	0.9940	7.0800e-003	1.0011	0.2637	6.5300e-003	0.2702		1,052.9416	1,052.9416	0.0336		1,053.7821
Total	**0.6914**	**6.1590**	**5.2484**	**0.0236**	**1.3122**	**0.0476**	**1.3598**	**0.3552**	**0.0453**	**0.4006**		**2,444.2197**	**2,444.2197**	**0.1410**		**2,447.7457**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unenclosed Parking with Elevator	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**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	lb/day										lb/day					
Mitigated	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Unmitigated	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7900e-003	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Total	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**		**0.2103**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7900e-003	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Total	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**		**0.2103**

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

Voigt Parking Structure

San Diego Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	900.00	Space	6.60	288,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Voigt Parking Structure details

Land Use - Voigt Parking Structure details

Construction Phase - Project construction schedule.

Grading - Grading - The total quantity of cut would be approximately 97,125 cubic yards of soil, with approximately 1,760 cubic yards of fill, leaving 95,365 cubic yards of soil to be exported from the project site.

Demolition - Demolition - Concrete pavement demolished = 30,879 sf
Asphalt demolition = 39,255 sf

Energy Use -

Voigt Parking Structure - San Diego Air Basin, Winter

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	230.00	315.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	30.00	6.60
tblGrading	MaterialExported	0.00	95,365.00
tblLandUse	BuildingSpaceSquareFeet	360,000.00	288,000.00
tblLandUse	LandUseSquareFeet	360,000.00	288,000.00
tblLandUse	LotAcreage	8.10	6.60
tblProjectCharacteristics	OperationalYear	2018	2019

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					
2018	4.7162	94.5959	31.0776	0.1881	18.2141	2.5780	20.7921	9.9699	2.3717	12.3416	0.0000	20,205.8812	20,205.8812	2.5240	0.0000	20,268.9821
2019	3.1241	27.2833	22.3698	0.0495	1.3122	1.3382	2.6504	0.3552	1.2587	1.6140	0.0000	4,935.9970	4,935.9970	0.7775	0.0000	4,955.4344
Maximum	**4.7162**	**94.5959**	**31.0776**	**0.1881**	**18.2141**	**2.5780**	**20.7921**	**9.9699**	**2.3717**	**12.3416**	**0.0000**	**20,205.8812**	**20,205.8812**	**2.5240**	**0.0000**	**20,268.9821**

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					
2018	4.7162	94.5959	31.0776	0.1881	4.8834	2.5780	6.6900	2.0502	2.3717	4.4219	0.0000	20,205.8812	20,205.8812	2.5240	0.0000	20,268.9821
2019	3.1241	27.2833	22.3698	0.0495	1.3122	1.3382	2.6504	0.3552	1.2587	1.6140	0.0000	4,935.9970	4,935.9970	0.7775	0.0000	4,955.4344
Maximum	**4.7162**	**94.5959**	**31.0776**	**0.1881**	**4.8834**	**2.5780**	**6.6900**	**2.0502**	**2.3717**	**4.4219**	**0.0000**	**20,205.8812**	**20,205.8812**	**2.5240**	**0.0000**	**20,268.9821**

	ROG	NOx	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**	**68.27**	**0.00**	**60.16**	**76.70**	**0.00**	**56.75**	**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	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**	**0.0000**	**3.3000e-004**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**	**0.0000**	**0.2103**

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	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	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	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**	**0.0000**	**3.3000e-004**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**	**0.0000**	**0.2103**

	ROG	NOx	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	2/1/2018	2/23/2018	6	20	
2	Site Preparation	Site Preparation	2/24/2018	3/13/2018	6	15	
3	Grading	Grading	3/14/2018	5/22/2018	6	60	
4	Building Construction	Building Construction	5/23/2018	5/24/2019	6	315	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.6

Acres of Paving: 6.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	319.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	11,921.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	121.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2018

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					3.4949	0.0000	3.4949	0.5293	0.0000	0.5293			0.0000			0.0000
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**	**3.4949**	**1.9386**	**5.4335**	**0.5293**	**1.8048**	**2.3341**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.1502	5.1275	1.1250	0.0126	0.2787	0.0204	0.2991	0.0764	0.0195	0.0959		1,372.0808	1,372.0808	0.1276		1,375.2708
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	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**0.2223**	**5.1792**	**1.6121**	**0.0139**	**0.4019**	**0.0213**	**0.4233**	**0.1091**	**0.0204**	**0.1294**		**1,498.4299**	**1,498.4299**	**0.1320**		**1,501.7294**

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					0.7077	0.0000	0.7077	0.1072	0.0000	0.1072			0.0000			0.0000
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**	**0.7077**	**1.9386**	**2.6463**	**0.1072**	**1.8048**	**1.9120**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.2 Demolition - 2018

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	0.1502	5.1275	1.1250	0.0126	0.2787	0.0204	0.2991	0.0764	0.0195	0.0959		1,372.0808	1,372.0808	0.1276		1,375.2708
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	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**0.2223**	**5.1792**	**1.6121**	**0.0139**	**0.4019**	**0.0213**	**0.4233**	**0.1091**	**0.0204**	**0.1294**		**1,498.4299**	**1,498.4299**	**0.1320**		**1,501.7294**

3.3 Site Preparation - 2018

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.3 Site Preparation - 2018

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	0.0866	0.0620	0.5845	1.5200e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		151.6189	151.6189	5.2500e-003		151.7503
Total	**0.0866**	**0.0620**	**0.5845**	**1.5200e-003**	**0.1479**	**1.0600e-003**	**0.1489**	**0.0392**	**9.8000e-004**	**0.0402**		**151.6189**	**151.6189**	**5.2500e-003**		**151.7503**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6584	0.0000	3.6584	2.0110	0.0000	2.0110			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**3.6584**	**2.5769**	**6.2353**	**2.0110**	**2.3708**	**4.3817**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

3.3 Site Preparation - 2018

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	0.0866	0.0620	0.5845	1.5200e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		151.6189	151.6189	5.2500e-003		151.7503
Total	**0.0866**	**0.0620**	**0.5845**	**1.5200e-003**	**0.1479**	**1.0600e-003**	**0.1489**	**0.0392**	**9.8000e-004**	**0.0402**		**151.6189**	**151.6189**	**5.2500e-003**		**151.7503**

3.4 Grading - 2018

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					6.3621	0.0000	6.3621	3.3566	0.0000	3.3566			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272		2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**6.3621**	**1.5513**	**7.9134**	**3.3566**	**1.4272**	**4.7839**		**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

3.4 Grading - 2018

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	1.8708	63.8718	14.0136	0.1572	3.4718	0.2545	3.7263	0.9515	0.2434	1.1949		17,091.5106	17,091.5106	1.5894		17,131.2467
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	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**1.9430**	**63.9234**	**14.5007**	**0.1584**	**3.5951**	**0.2553**	**3.8504**	**0.9842**	**0.2443**	**1.2284**		**17,217.8596**	**17,217.8596**	**1.5938**		**17,257.7052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2883	0.0000	1.2883	0.6797	0.0000	0.6797			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272	0.0000	2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**1.2883**	**1.5513**	**2.8396**	**0.6797**	**1.4272**	**2.1069**	**0.0000**	**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

3.4 Grading - 2018

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	1.8708	63.8718	14.0136	0.1572	3.4718	0.2545	3.7263	0.9515	0.2434	1.1949		17,091.5106	17,091.5106	1.5894		17,131.2467
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	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**1.9430**	**63.9234**	**14.5007**	**0.1584**	**3.5951**	**0.2553**	**3.8504**	**0.9842**	**0.2443**	**1.2284**		**17,217.8596**	**17,217.8596**	**1.5938**		**17,257.7052**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.5 Building Construction - 2018

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	0.2526	6.2030	1.8142	0.0128	0.3182	0.0492	0.3674	0.0916	0.0471	0.1387		1,366.2803	1,366.2803	0.1182		1,369.2360
Worker	0.5818	0.4166	3.9292	0.0102	0.9940	7.1600e-003	1.0011	0.2637	6.6000e-003	0.2703		1,019.2160	1,019.2160	0.0353		1,020.0990
Total	**0.8344**	**6.6195**	**5.7434**	**0.0230**	**1.3122**	**0.0564**	**1.3686**	**0.3552**	**0.0537**	**0.4090**		**2,385.4963**	**2,385.4963**	**0.1536**		**2,389.3350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.5 Building Construction - 2018

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	0.2526	6.2030	1.8142	0.0128	0.3182	0.0492	0.3674	0.0916	0.0471	0.1387		1,366.2803	1,366.2803	0.1182		1,369.2360
Worker	0.5818	0.4166	3.9292	0.0102	0.9940	7.1600e-003	1.0011	0.2637	6.6000e-003	0.2703		1,019.2160	1,019.2160	0.0353		1,020.0990
Total	**0.8344**	**6.6195**	**5.7434**	**0.0230**	**1.3122**	**0.0564**	**1.3686**	**0.3552**	**0.0537**	**0.4090**		**2,385.4963**	**2,385.4963**	**0.1536**		**2,389.3350**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

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	0.2256	5.8321	1.6680	0.0127	0.3182	0.0413	0.3594	0.0916	0.0395	0.1311		1,355.9512	1,355.9512	0.1143		1,358.8079
Worker	0.5373	0.3724	3.5380	9.9200e-003	0.9940	7.0800e-003	1.0011	0.2637	6.5300e-003	0.2702		988.4656	988.4656	0.0319		989.2630
Total	**0.7630**	**6.2045**	**5.2060**	**0.0226**	**1.3122**	**0.0483**	**1.3605**	**0.3552**	**0.0460**	**0.4012**		**2,344.4168**	**2,344.4168**	**0.1462**		**2,348.0709**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.5 Building Construction - 2019

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	0.2256	5.8321	1.6680	0.0127	0.3182	0.0413	0.3594	0.0916	0.0395	0.1311		1,355.9512	1,355.9512	0.1143		1,358.8079
Worker	0.5373	0.3724	3.5380	9.9200e-003	0.9940	7.0800e-003	1.0011	0.2637	6.5300e-003	0.2702		988.4656	988.4656	0.0319		989.2630
Total	**0.7630**	**6.2045**	**5.2060**	**0.0226**	**1.3122**	**0.0483**	**1.3605**	**0.3552**	**0.0460**	**0.4012**		**2,344.4168**	**2,344.4168**	**0.1462**		**2,348.0709**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unenclosed Parking with Elevator	0.581689	0.044135	0.186694	0.113515	0.018244	0.005600	0.015197	0.022573	0.001888	0.002088	0.006279	0.000742	0.001357

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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					
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**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	lb/day										lb/day					
Mitigated	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Unmitigated	0.1108	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7900e-003	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Total	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**		**0.2103**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1020					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.7900e-003	8.6000e-004	0.0928	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		0.1970	0.1970	5.3000e-004		0.2103
Total	**0.1108**	**8.6000e-004**	**0.0928**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**		**0.1970**	**0.1970**	**5.3000e-004**		**0.2103**

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