Appendix B
Air Quality Technical Report

ESA

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Draft

AVION BURBANK PROJECT

Air Quality Technical Report

Prepared for
City of Burbank
Community Development
150 North Third Street
Burbank, CA 91502-1264

May 2018

ESA

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Community Development
150 North Third Street
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May 2018

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
Air Basin	South Coast Air Basin
AQMP	Air Quality Management Plan
ATCM	Air Toxics Control Measure
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEC	California Energy Commission
CEUS	Commercial End-Use Survey
CEQA	California Environmental Quality Act
City	City of Burbank
CO	carbon monoxide
DPM	Diesel particulate matter
EMFAC	on-road vehicle emissions factor model
hp	horsepower
LOS	Level of Service
LST	localized significance threshold
MATES IV	Multiple Air Toxics Exposure Study, May 2015
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO	nitric oxide
NO_2	nitrogen dioxide
NOx	nitrogen oxides
Pb	lead
PM2.5	fine particulate matter
PM10	respirable particulate matter

ppm	parts per million
RTIP	Regional Transportation Improvement Program
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	sulfur dioxide
TAC	toxic air contaminant
TRU	truck refrigeration unit
$\mu g/m^3$	micrograms per cubic meter
µm	micrometers
USEPA	United States Environmental Protection Agency
VDECS	Verified Diesel Emission Control Strategies
VOC	volatile organic compounds

EXECUTIVE SUMMARY

Overton Moore Properties (the Applicant) proposes to construct a mixed-use development (Project) in the City of Burbank (City). The project site is located in the western portion of the City on approximately 61 acres of flat land. The project site is currently partially developed with surface parking lots and would be redeveloped with a mixed use campus consisting of creative office and industrial spaces, retail, and a hotel.

The project would incorporate features to encourage use of public transit and alternative modes of transportation by installing two bus stops, electric vehicle charging stations, four bike share stations, providing on-street bike lanes for surrounding streets, and providing a walkway and bike path connecting the project to the future Hollywood-Burbank Airport-Hollywood Way Metrolink Station. The project would also be designed to meet CalGreen Tier 1 criteria and as a public benefit would provide 40 parking stalls dedicated for use at the future Metrolink station mentioned above.

In accordance with the requirements under the California Environmental Quality Act (CEQA), this Technical Report evaluates the potential impacts to air quality from Project-related construction and operational activities. The report includes the categories and types of emission sources resulting from the project, the calculation procedures used in the analysis, and any assumptions or limitations.

This report summarizes the potential for the project to conflict with an applicable air quality plan, to violate an air quality standard or threshold, to result in a cumulatively net increase of criteria pollutant emissions, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people. The findings of the analyses are as follows:

- Regional Impact: The incremental increase in emissions from construction of the project would not exceed the regional daily emission thresholds set forth by the South Coast Air Quality Management District (SCAQMD). However, the incremental increase in emissions from operation of the project would exceed the SCAQMD significance threshold for NOx. The majority of operational NOx emissions are from vehicles traveling to the project site. The project would implement mitigation measures to reduce NOx emissions from single occupancy vehicle trips and delivery trucks idling on site. The project emissions would contribute to a potential regional violation of applicable air quality standards or jeopardize the timely attainment of such standards in the South Coast Air Basin (the Air Basin).

- Localized Impact: The incremental increase in on-site emissions from construction and operation of the project would not exceed the localized significance thresholds set forth by the SCAQMD. Thus, the project would not result in a localized violation of applicable air quality standards or expose off-site receptors to substantial levels of regulated air contaminants resulting in a less than significant impact.
- Emissions from the increase in traffic due to operation of the project would not have a significant impact upon 1-hour or 8-hour local carbon monoxide (CO) concentrations due to mobile source emissions.
- project would not result in significant toxic air contaminant emissions.
- project construction and operations would not result in significant levels of odors.
- The project would be consistent with air quality policies set forth by the SCAQMD.

SECTION 1
Introduction

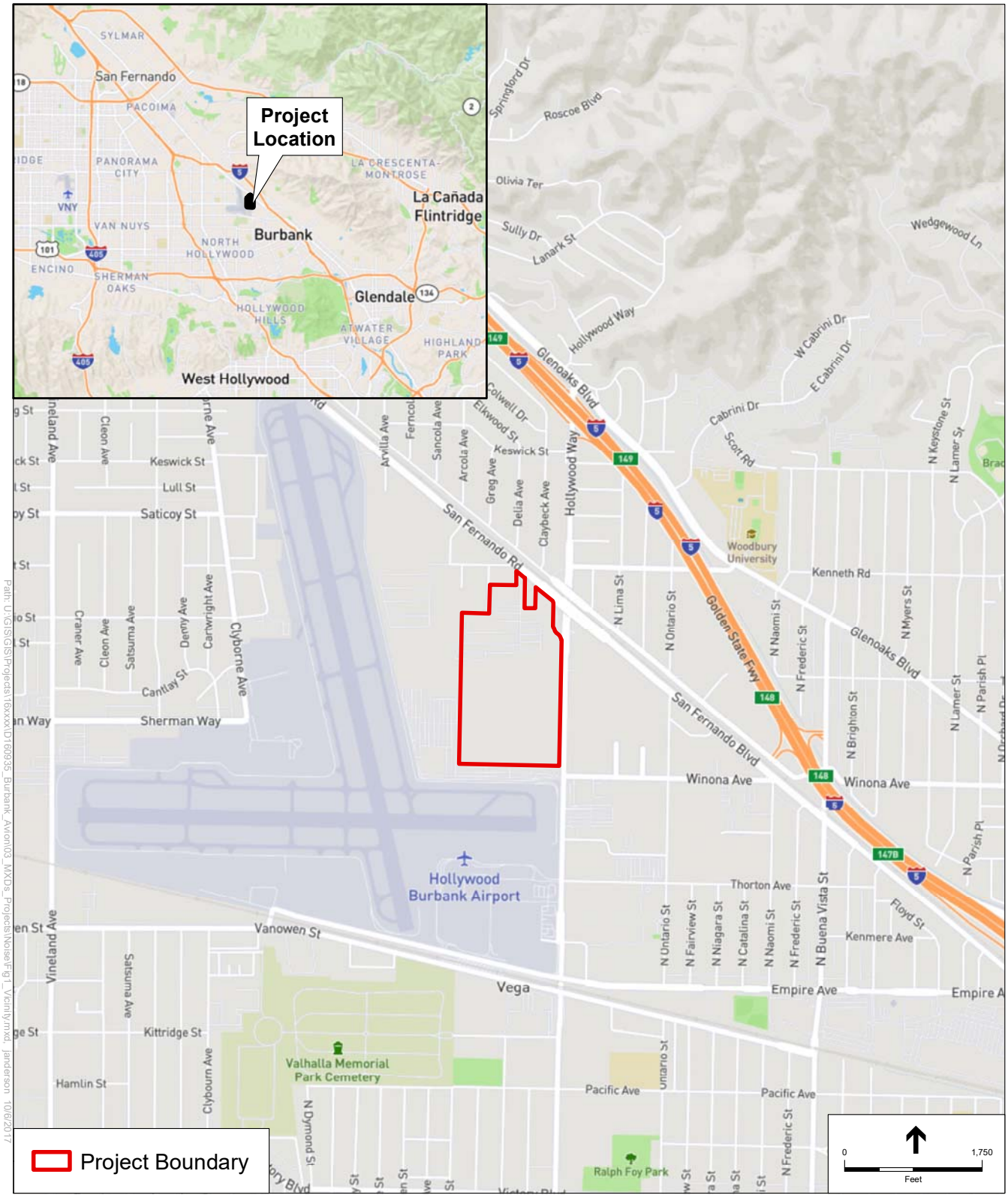
1.1 Existing Conditions

The project site is located in the western portion of the City on approximately 61 acres of flat land. The Burbank Hollywood-Burbank Airport is located to the west and the south of the project site (the Replacement Terminal will be adjacent to the runway, and the proposed project will be adjacent to the terminal), North Hollywood Way is immediately east of the project site, and North San Fernando BlvdNorth San Fernando Blvd and Cohasset Street are north of the project site as shown in **Figure 1**, *Project Vicinity Map*. The surrounding land uses include the Burbank Hollywood-Burbank Airport, Airport parking, industrial and storage uses, and vacant land. The project site is graded and partially developed with surface parking lots as shown in **Figure 2**, *Aerial Photograph of the Project Site and Vicinity*. A small portion of the parking lots is currently being used for vehicle storage.

1.2 Project Description

The project is a mixed-use development including offices, retail buildings, and a hotel. The project also includes an industrial component, parking, and street improvements, including street widening. The project would also include transit connectivity to the new Burbank Airport-North Metrolink station across the street from the project site at North San Fernando Blvd and the future replacement of Hollywood Burbank Airport terminal via auto, bike and walking paths. The project would also include auto, bike and walking paths that connect the creative industrial, hotel, and creative office to the on-site retail amenities and transit stops. Parking would be provided between the creative industrial, office, retail, and hotel uses. Forty spaces would be designated to the future metro station. The project would also include the construction and extension of North Kenwood Street and Tulare Avenue as public streets. North Kenwood Street would extend to Cohasset Street and Tulare Avenue would extend from proposed Burbank-Hollywood Airport Terminal to Hollywood Way.

The project would include a General Plan Amendment to change the General Plan land use designation from Airport to Golden State Commercial/Industrial for the western most 18-acre portion of the approximately 61-acre project site. Additionally, the project would also include a Zoning Code Amendment to amend the existing zoning from the M-2 and Airport to Planned Development; a Development Agreement; Development Review for the warehouse, office, and retail/restaurant buildings; and a Tentative Parcel Map to subdivide the project site into separate legal lots for future sale, lease, or financing.



SOURCE: ESRI

Avion Burbank Project

Figure 1

Vicinity Location Map

Path: U:\GIS\GIS\Projects\16xxxx\D160935_Burbank_Avion\03_MXDs_Projects\Noise\Fig2_Aerial_ProjectSite.mxd, janderson 10/6/2017

SOURCE: ESRI

Avion Burbank Project

Figure 2

Aerial Photograph of Project Site and Vicinity

Creative Office Buildings

The creative office component would consist of nine two-story buildings, representing 142,500 square feet (sf), with each building ranging between 6,500-22,500 sf. The creative office building component of the project would be designed as office condominium units for lease or sale and would provide tenants the opportunity to design their interior space specific to their needs and aesthetic style. With the exception of the smallest (6,500 square foot) building, all of the office condo buildings would be divisible to two units. The landscaped exterior public area within the buildings would be designed to accommodate conversation areas, casual meeting and dining areas, exterior seating, and private patios for each of the office condos. Other amenities available in the exterior public areas may include but are not limited to, a fireplace, large-scale chess set, and ping pong table.

Retail Center

The proposed retail center component of the project would provide a total of 15,475 sf between two retail buildings, 9,175 sf and 6,300 sf, respectively. The two retail buildings would be divisible down to 1,500 sf spaces, and would accommodate business service retail and food and beverage tenants. The architectural design of the retail component would be complementary to the creative office buildings, with unique building shapes, tactile materials, and ample shaded dining patios.

Hotel

The proposed project would also be entitled to accommodate a six-story, 166-room hotel, which would be a maximum of 69 feet tall. The proposed hotel would be similar to a nationally branded upscale select service hotel. Proposed amenities would include a restaurant, meeting facilities, swimming pool, fitness center, business center and lounge area. The proposed hotel would service the Airport, business and tourist industry and would be located adjacent to the Metro Link stop to allow for convenient access to alternative transportation.

Creative Industrial Buildings

The proposed project includes six creative industrial buildings totaling 1,014,887 sf. The building sizes range from approximately 93,500 to 282,500 sf and would be divisible down to approximately 27,200 sf. The proposed creative industrial buildings would provide large expansive spaces that could accommodate different types of businesses and operations, which would allow for flexibility in the types of tenants that could use the creative industrial buildings. Two story lanterns of glass would accentuate the office corners of the facility creating a play of solid and void in the massing of the 40-foot-tall facilities. The office areas would also have an operable garage door that would open to a private patio. Setbacks with landscaping along Hollywood Way and Tulare Avenue would provide a consistent visual theme for the project with setbacks ranging from 14 to 40 feet. The surrounding landscaping would consist of varied landscaped tree species and shrubs that are consistent with the remainder of the mixed-use campus. The creative industrial buildings would be approximately 40 feet tall to the top of the

parapet and would include large truck dock yards to allow for interior maneuverability within the truck courts.

Parking

Parking for the proposed project would be provided in surface parking lots, located adjacent to the proposed creative industrial, creative office, retail and hotel buildings. A shared parking demand analysis was conducted for the creative office, retail center and hotel portions of the project. Shared parking is defined as a parking space that can be used to serve two or more individual land uses without conflict or encroachment. Shared parking works based upon variations in the peak demand for each use and the relationship among land use activities that are complimentary. Based upon a total of 1,014,887 sf of creative industrial, 142,250 sf of creative office, 15,475 sf of retail and 101,230 sf of hotel floor area, 1,884 parking spaces are required. The project would provide 2,390 parking spaces, which exceeds the City's parking requirements. In addition, as an added public benefit, the project would provide 40 parking stalls to the dedicated use of the future Hollywood-Burbank Airport-Hollywood Way Metro Link station.

Land Use and Zoning Designation

The project site is currently zoned AP Airport, is located adjacent to the Burbank Hollywood-Burbank Airport, including the project site of the future proposed Hollywood-Burbank Airport Replacement Terminal, to the west. The project site is bounded on the north by N. San Fernando Boulevard and Cohasset Street and two industrial/warehouse buildings, both zoned M-2; to the east by N. Hollywood Way and commercial uses, industrial uses, trucking/freight terminal and parking lots, which are zoned M-2; to the south by Winona Avenue and runway which is zoned AP. Additional surrounding land uses include Airport parking, industrial and storage uses, and vacant land. According to the City of Burbank 2035 General Plan, these surrounding land uses are designated as Golden State Commercial/Industrial, Airport, and Regional Commercial uses.

1.3 Project Design Features

The project incorporates many project design features (PDFs) that would reduce construction emissions: and target sustainable site development, water savings, energy efficiency, green-oriented materials selection, and improved indoor environmental quality. PDFs are part of the project design, and are not mitigation measures. The PDFs proposed for the project include, but are not limited to the following:

> **PDF-AIR-1: Construction Features.** Construction equipment operating at the project site will be subject to the following requirements, which will be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment:
>
> - The project will require all off-road diesel equipment greater than 50 horsepower (hp) used for this project to meet USEPA Tier 4 off-road emission standards or equivalent. Welders shall also meet USEPA Tier 4 off-road emission standards or

shall be electric-powered. This PDF shall reduce diesel particulate matter (DPM) and nitrogen oxides (NOx) emissions during construction activities.

PDF-AIR-2: Design Elements. The project will be designed to meet CALGreen Tier 1 criteria in addition to mandatory CAL Green Building Standards, the project will incorporate the following mandatory and voluntary energy and emission saving features:

- **Mandatory:**
  - Cal Green Tier 1 requires recycle and/or salvage at least 65 percent of non–hazardous construction and demolition debris. The project will recycle and balance on-site all non–hazardous construction and demolition debris.
  - The project will use water efficient landscaping and native drought tolerant plants.
  - The project will include easily accessible recycling areas dedicated to the collection and storage of non-hazardous materials such as paper, corrugated cardboard, glass, plastics, metals, and landscaping debris (trimmings).
  - The project will include efficient heating, ventilation, and air conditioning (HVAC) systems.
  - The project shall include shuttle service for the Golden State District including service to the Metrolink stations.
  - The project shall include passive cooling/heating features.
  - The project shall include pre-wiring for solar panels.

- The project shall encourage the use of alternative modes of transportation by installing the pre-wiring for 126 electric vehicle charging stations, providing four bike share stations and increased access to the future Burbank Airport-North Metrolink Station for the Antelope Valley Metrorail Link.
- As a public benefit, the project shall provide 40 parking stalls for dedicated use at the future Burbank Airport-North Metrolink Station for the Antelope Valley Metrorail Link.
  -

1.4 Existing Site Emissions

The project site is partially developed with surface parking lots, only a small portion of it is being used for vehicle storage, and therefore does not generate substantial air pollutant emissions. As a conservative approach, this air quality analysis assumed the baseline emissions are zero and focused on estimating emissions from construction and operations of the project.

1.5 Existing Air Quality Conditions

Regional Air Quality

Criteria Pollutants

The distinctive climate of the Air Basin is determined primarily by its terrain and geographical location. Regional meteorology is dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by Federal, State and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and NOx under favorable meteorological conditions such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months, when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency.

Volatile Organic Compounds (VOCs): VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as toxic air contaminants (TACs). These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not "criteria" pollutants; however, they contribute with NOx to formation of O_3 and are regulated as O_3 precursor emissions.

Nitrogen Dioxide (NO_2) and NOx: NOx is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO_2 and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO_2. Ambient air quality

standards have been promulgated for NO_2, which is a reddish-brown, reactive gas. The principle form of NOx produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO_2, creating the mixture of NO and NO_2 referred to as NOx. Major sources of NOx emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NOx are a precursor to the formation of ground-level ozone. NO_2 can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the California Air Resources Board (CARB), "NO_2 is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO_2 along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current State air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children."[1] NO_2 also contributes to the formation of particulate matter (PM10). The terms "NOx" and "NO_2" are sometimes used interchangeably. However, the term "NO_X" is primarily used when discussing emissions, usually from combustion-related activities. The term "NO_2" is primarily used when discussing ambient air quality standards. More specifically, NO_2 is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NOx and NO are not. In cases where the thresholds of significance or impact analyses are discussed in the context of NOx emissions, it is based on the conservative assumption that all NOx emissions would oxidize in the atmosphere to form NO_2.

Carbon monoxide (CO): CO is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions, lower the amount of oxygen carried by the blood, and are especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations, and can be fatal at high concentrations.

Sulfur Dioxide (SO_2): Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO_2 aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of SO_2, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM10 and PM2.5): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than 10 microns (PM10) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM10 and PM2.5. Lung impairment can persist for two to three weeks after exposure

1 California Air Resources Board, "Nitrogen Dioxide – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm. Accessed March 2017.

to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses.[2]

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing of lead is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

Toxic Air Contaminants (TACs)

Toxic air contaminants (TACs) are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Other factors, such as the amount of the chemical, its toxicity, how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as PM10 and PM2.5 or as vapors (gases). TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources.

The emission of toxic substances into the air can be damaging to human health and to the environment. Human exposure to these pollutants at sufficient concentrations and durations can result in cancer, poisoning, and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems. Pollutants deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food. The carcinogenic potential of TACs is a particular public health concern because many scientists currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer.

The public's exposure to TACs is a significant public health issue in California. The Air Toxics "Hotspots" Information and Assessment Act is a State law requiring facilities to report emissions of TACs to air districts. The program is designated to quantify the amounts of potentially hazardous air pollutants released, the location of the release, the concentrations to which the public is exposed, and the resulting health risks. The State Air Toxics Program (Assembly Bill 2588) identified over 200 TACs, including the 188 TACs identified in the Clean Air Act (CAA). The USEPA has assessed this expansive list of toxics and identified 21 TACs as Mobile Source Air Toxics (MSATs). MSATs are compounds emitted from highway vehicles and non-road

[2] California Air Resources Board, "Particulate Matter – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm. Accessed March 2017.

equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline. USEPA also extracted a subset of these 21 MSAT compounds that it now labels as the six priority MSATs: benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene. While these six MSATs are considered the priority transportation toxics, USEPA stresses that the lists are subject to change and may be adjusted in future rules.

To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-IV), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-IV found that the average cancer risk at a project site from carcinogenic air pollutants is approximately 997 in 1 million[3], with an average regional risk of approximately 1,023 in 1 million. This risk is 65 percent lower than the monitored average in the MATES III study.[4]

Diesel Particulate Matter

According to the 2006 California Almanac of Emissions and Air Quality, the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from the exhaust of diesel-fueled engines, i.e., diesel particulate matter (DPM). DPM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances.

Diesel exhaust is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine diesel particulates are of the greatest health concern, and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines; the on road diesel engines of trucks, buses and cars and the off-road diesel engines that include locomotives, marine vessels and heavy duty equipment. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

The most common exposure to DPM is breathing the air that contains diesel exhaust. The fine and ultra-fine particles are respirable (similar to PM2.5), which means that they can avoid many

3 South Coast Air Quality Management District, 2015. *Mates IV Carcinogenic Risk Interactive Map*. http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv/estimated-carcinogenic-risk. Accessed May 2017.

4 South Coast Air Quality Management District 2015. *Final MATES IV Report*. http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7. Accessed May 2017.

of the human respiratory system defense mechanisms and enter deeply into the lung. Exposure to DPM comes from both on-road and off-road engine exhaust that is either directly emitted from the engines or lingering in the atmosphere.

Diesel exhaust causes health effects from both short-term or acute exposures, and long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to just DPM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

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

DPM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, SCAQMD estimated that DPM accounts for 90 percent of the total risk in the Air Basin. The SCAQMD has analyzed DPM in their MATES Studies. From MATES III to MATES IV, DPM has shown a reduction of 70 percent in levels measured at the 10 monitoring sites.[5]

Local Air Quality

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The project site is located in SCAQMD Source Receptor Area (SRA) 7; therefore, the monitoring station most representative of the project site is the East San Fernando Valley Monitoring Station. This station was located in Burbank and monitored ozone, NO_2, SO_2, CO, PM10, and PM2.5, however, the monitoring site was terminated in 2014. Therefore, 2015 and 2016 data came from the Reseda Monitoring Station located in SRA 6. Criteria pollutants monitored include ozone, NO_2, CO, and PM2.5. The Central Los Angeles Monitoring Station in SRA 1 was used to report data for SO_2, PM10, and lead for 2015 and 2016. The pollutant concentration data for 2012 to 2016 are summarized in **Table 1,** *Ambient Air Quality Data*. As shown, there were days that O_3, PM10 and PM2.5 exceeded the CAAQS and/or NAAQS standards, while all the other monitored pollutants were below the CAAQS and/or NAAQS standards.

5 South Coast Air Quality Management District 2015. *Final MATES IV Report*. http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7. Accessed March 2017.

TABLE 1
AMBIENT AIR QUALITY DATA

Pollutant/Standard [a]	2012	2013	2014	2015 [c]	2016
O_3 (1-hour)					
Maximum Concentration (ppm)	0.117	0.110	0.091	0.119	0.122
Days > CAAQS (0.09 ppm)	8	4	0	11	9
O_3 (8-hour)					
Maximum Concentration (ppm)	0.088	0.083	0.079	0.094	0.098
4th High 8-hour Concentration (ppm)	0.081	0.079	0.069	0.087	0.086
Days > CAAQS (0.070 ppm)	15	17	2	34	23
Days > NAAQS (0.070 ppm)	15	17	2	34	23
NO_2 (1-hour)					
Maximum Concentration (CAAQS 0.18 ppm)	0.080	0.073	0.073	0.073	0.056
98th Percentile Concentration (NAAQS 0.1 ppm)	0.057	0.060	0.065	0.052	0.046
NO_2 (Annual)					
Annual Arithmetic Mean (CAAQS 0.030 ppm)	0.022	0.020	0.022	0.014	0.013
CO (1-hour)					
Maximum Concentration (CAAQS 20 ppm)	N/A	N/A	3.0	3.0	2.4
CO (8-hour)					
Maximum Concentration (CAAQS/NAAQS 9 ppm)	2.4	2.4	3.0	2.5	1.9
SO_2 (1-hour)					
Maximum Concentration (CAAQS 0.25 ppm)	0.065	0.011	0.005	0.013	0.013
99th Percentile Concentration (NAAQS 0.075 ppm)	0.029	0.004	0.004	0.006	0.003
PM10 (24-hour)					
Maximum Concentration (µg/m^3)	55.0	52.0	68.0	88.0	67.0
Est. Days > CAAQS (50 µg/m^3)	1	1	2	26	18
Est. Days > NAAQS (150 µg/m^3)	0	0	0	0	0
PM10 (Annual Average)					
Annual Arithmetic Mean (20 µg/m^3)	26.4	28.5	31.2	33.0	32.4
PM2.5 (24-hour)					
Maximum Concentration (µg/m^3)	54.2	45.1	64.6	36.8	30.1
98th Percentile Concentration (µg/m^3)	28.2	30.4	29.0	28.4	24.6
Est. Days > NAAQS (35 µg/m^3)	2	4	2	1	0
PM2.5 (Annual)					
Annual Arithmetic Mean (CAAQS/NAAQS 12 µg/m^3)	12.2	12.2	12.1	8.8	9.2
Lead [d]					
Maximum 30-day average (CAAQS 1.5 µg/m^3)	0.014	0.013	0.013	0.013	0.016

[a] ppm = parts per million; µg/m^3 = micrograms per cubic meter
[b] Exceptional events occurred in 2014 for PM2.5. Exceptional events are not considered violations of an ambient air quality standard and are not included in this table.
[c] Values for O_3, NO_2, and CO after 2014 are from Reseda air monitoring station.
[d] Values for Lead from 2012 to 2016, and SO_2 and PM10 from 2015 and 2016 are from the Central Los Angeles air monitoring station.

SOURCES: SCAQMD, 2017

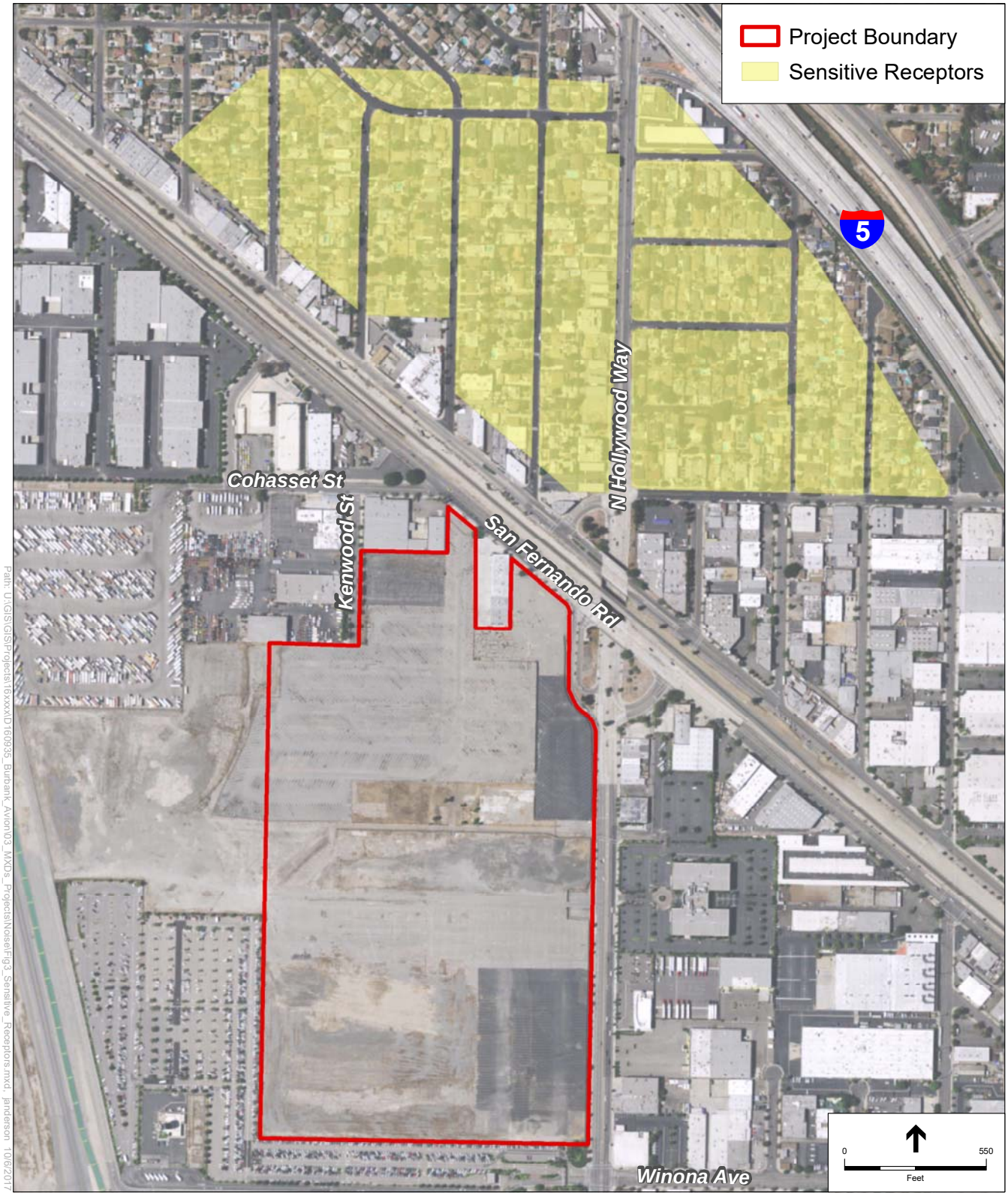
1.6 Sensitive Receptors

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. SCAQMD defines sensitive receptors as any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. It also includes long-term care hospitals, hospices, prisons, and dormitories or similar live-in housing.[6] Sensitive receptor locations are shown in **Figure 3**, *Sensitive Receptor Locations Nearest to the Project Site*, and include the following:

- Residences north of North San Fernando Boulevard approximately 350 feet from the northern most boundary of the Project.
- Residences along North Hollywood Way approximately 435 feet northeast of the project site.

All other air quality sensitive receptors are located at greater distances from the project Site, and would be less impacted by project emissions. Impacts are quantified for the sensitive receptors listed here.

6 SCAQMD Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, May 2012. http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf. Accessed October 5, 2017



SOURCE: ESRI

Avion Burbank Project

Figure 3

Sensitive Receptor Locations Nearest to the Project Site

SECTION 2
Regulatory Setting

A number of statutes, regulations, plans and policies have been adopted which address air quality concerns. The project site and vicinity is subject to air quality regulations developed and implemented at the Federal, State, and local levels. At the Federal level, the USEPA is responsible for implementation of the Federal CAA. Some portions of the CAA (e.g., certain mobile source requirements and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary source requirements) are implemented through delegation of authority to State and local agencies.

A number of plans and policies have been adopted by various agencies that address air quality concerns. Those plans and policies that are relevant to the project are discussed below.

2.1 Federal

The 1963 CAA was the first Federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990. At the Federal level, USEPA is responsible for implementation of certain portions of the CAA including mobile source requirements. Other portions of the CAA, such as stationary source requirements, are implemented by State and local agencies.

The CAA establishes Federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The 1990 Amendments to the Clean Air Act identify specific emission reduction goals for areas not meeting the NAAQS. The 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. Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) of the CAA are most applicable to the development and operations of the Project. Title I provisions were established with the goal of attaining the NAAQS for the criteria pollutants: O_3, NO_2, CO, SO_2, PM10, and Pb. **Table 2**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

TABLE 2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards[a]		National Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary [c,f]	Method[g]
O_3[h]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—		Ultraviolet Photometry

Pollutant	Average Time	California Standards[a]		National Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary [c,f]	Method[g]
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)	Same as Primary Standard	
NO_2[i]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		53 ppb (100 µg/m^3)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m^3)		9 ppm (10 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
SO_2[j]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)9
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)j	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) j	—	
PM10[k]	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		—		
PM2.5 [k]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3 k	15 µg/m^3	
Lead[l,m]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)m	Same as Primary Standard	
	Rolling 3-Month Average [m]	--		0.15 µg/m^3		

Pollutant	Average Time	California Standards[a]		National Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary[c,f]	Method[g]
Visibility Reducing Particles[n]	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 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 Federal Standards		
Sulfates (SO_4)	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[l]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

a California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (µg/m^3) is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

e National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

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

g Reference method as described by the USEPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the USEPA.

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

i To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

j On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

k On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3.

l The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

m The national standard for lead was revised on October 15, 2008 to a rolling three-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

n In 1989, the California Air Resources Board converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB, 2017.

The Air Basin is an area designated as non-attainment as it does not currently meet NAAQS for certain pollutants regulated under the CAA. On June 11, 2007, USEPA reclassified the Air Basin as a Federal "attainment" area for CO and approved the CO maintenance plan for the Air Basin.[7] The Air Basin previously exceeded the NAAQS for PM10, but has met effective July 26, 2013.[8] The Air Basin does not meet the NAAQS for O_3 and PM2.5, and is classified as non-attainment for these pollutants. The Los Angeles County portion of the Air Basin is designated as non-attainment for the lead NAAQS; however, this was due to localized emissions from two previously operating lead-acid battery recycling facilities located in the City of Vernon and the City of Industry.[9] These facilities are no longer operating and would not affect the project Site. **Table 3**, *South Coast Air Basin Attainment Status (Los Angeles County)*, lists the criteria pollutants and their relative attainment status.

TABLE 3
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	Non-attainment – Extreme	Non-attainment-Extreme
Ozone (8-hour standard)	Non-attainment – Extreme	Non-Attainment
Carbon monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment (Maintenance)	Attainment
Sulfur Dioxide	Attainment	Attainment
PM10	Attainment (Maintenance)	Non-attainment
PM2.5	Non-attainment - Serious	Non-attainment
Lead	Non-attainment (Partial, Los Angeles County)[a]	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A [b]

N/A = not applicable

[a] The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

[b] In 1990 the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

Source:United States Environmental Protection Agency, The Green Book Non-attainment Areas for Criteria Pollutants, https://www3.epa.gov/airquality/greenbook/mbcty.html Accessed June 2016; California Air Resources Board, Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm. Accessed June 2017.

SOURCE: SCAQMD, 2017.

7 "Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule." *Federal Register* 72 (11 May 2007):26718-26721

8 *Federal Register*, Vol. 78, No. 123, June 26, 2013, 38223-38226.

9 South Coast Air Quality Management District, Board Meeting, Agenda No. 30, Adopt the 2012 Lead State Implementation Plan for Los Angeles County, May 4, 2012.

The CAA also specifies future dates for achieving compliance with the NAAQS and mandates that States submit and implement a State Implementation Plan (SIP) for local areas not meeting the NAAQS. The SIP must include pollution control measures that demonstrate how the NAAQS would be met. The 1990 amendments to the CAA identify specific emission reduction goals for air basins 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.

Title II of the CAA pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the NAAQS for NOx emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

2.2 State

California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practical date. The CAAQS apply to the same criteria pollutants as the CAA but also include State-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the CAA planning requirements applicable to the State, and regulating emissions from motor vehicles and consumer products within the State. Table 2 shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the State. As shown in Table 2, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. Table 3 provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the CAAQS. The Air Basin is designated as attainment for the CAAQS for sulfates, hydrogen sulfide, and vinyl chloride.

California Air Resources Board Air Quality and Land Use Handbook

CARB published the Air Quality and Land Use Handbook in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include avoid siting sensitive receptors within:

- 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day;
- 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and
- 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs. The ATCM applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This ATCM does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NOx, PM10, and PM2.5 PM2.5emissions from existing diesel vehicles operating in California. The requirements were amended in December 2010 and apply to nearly all diesel fueled trucks and busses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, i.e., those with a gross vehicle weight rating greater than 26,000 pounds, there are two methods to comply with the requirements. The first method is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over eight years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the State subject to this option would meet or exceed the 2010 engine emission standards for NO_X and PM by 2023. The second option, if chosen, requires fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016 their entire fleet is equipped with diesel particulate filters. However, diesel particulate filters do not typically lower NO_X emissions. Thus, fleet owners choosing the second method must still comply with the 2010 engine emission standards for their trucks and busses by 2020.

In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. This regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance January 1, 2014. Each fleet must demonstrate compliance through one of two methods. The first method is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second method is to meet the Best

Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits (VDECS installation) be fully implemented by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

2.3 Regional

South Coast Air Quality Management District (SCAQMD)

The SCAQMD has jurisdiction over air quality planning for all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Air Basin is a subregion within SCAQMD jurisdiction. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

Air Quality Management Plan

The SCAQMD has adopted a series of AQMPs to meet the CAAQS and NAAQS. In December 2012, the SCAQMD adopted the 2012 Air Quality Management Plan, which incorporates scientific and technological information and planning assumptions, including growth projections.[10] The 2012 AQMP incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2012 AQMP builds upon improvements in previous plans, and includes new and changing Federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. In addition, it highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all Federal criteria pollutant standards within the timeframes allowed under the Federal Clean Air Act.

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour PM2.5 standard. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour O_3 standard deadline with new measures designed to reduce reliance on the Federal CAA Section 182(e)(5) long-term measures for NOX and VOC reductions. The SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The SCAQMD released the Draft 2016 AQMP on June 30, 2016 for public review and comment. A revised Draft 2016 AQMP was released in October 2016 and the SCAQMD Governing Board adopted the 2016 AQMP on March 3, 2017.[11] CARB approved the 2016 on

10 South Coast Air Quality Management District, 2012 Air Quality Management Plan, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan. Accessed April 2016.

11 South Coast Air Quality Management District, Air Quality Management Plan (AQMP). Available: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan. Accessed March 2017.

March 23, 2017. Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the Federal, State, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from greenhouse gas, energy, transportation and other planning efforts.[12] The strategies included in the 2016 AQMP are intended to demonstrate attainment of the NAAQS for the Federal non-attainment pollutants ozone and PM2.5.[13] While the 2016 AQMP was adopted by the SCAQMD and CARB, it has not been yet received USEPA approval for inclusion in the SIP. Therefore, until such time as the 2016 AQMP is approved by the USEPA, the 2012 AQMP remains the applicable AQMP.

SCAQMD Air Quality Guidance Documents

The CEQA Air Quality Handbook was published by the SCAQMD in November 1993 to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The CEQA Air Quality Handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the CEQA Air Quality Handbook with the Air Quality Analysis Guidance Handbook. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a Project) of the CEQA Air Quality Handbook, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristics of the land uses identified in these screening tables were based on the fifth edition of the Institute of Transportation Engineer's Trip Generation Manual, instead of the most current edition. Additionally, the lead agency should avoid using the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L (EMFAC7EP Emission Factors for Passenger Vehicles and Trucks, Emission Factors for Estimating Material Hauling, and Emission Factors for Oxides of Sulfur and Lead). The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) software, initially released in 2011 and updated in 2016.[14]

The SCAQMD has published a guidance document called the Localized Significance Threshold Methodology for CEQA Evaluations that is intended to provide guidance in evaluating localized effects from mass emissions during construction.[15] The SCAQMD adopted additional guidance regarding PM2.5 in a document called Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds.[16] This latter document has been incorporated by the

12 Ibid.

13 South Coast Air Quality Management District, NAAQS/CAAQS and Attainment Status for South Coast Air Basin, (2016). Available at http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2. Accessed March 2017.

14 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). Accessed April 2016.

15 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (2008).

16 South Coast Air Quality Management District, Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds, (2006).

SCAQMD into its CEQA significance thresholds and Localized Significance Threshold Methodology.

SCAQMD Rules and Regulations

Several SCAQMD rules adopted to implement portions of the AQMP may apply to the proposed Project. For example, SCAQMD Rule 403 requires implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. The project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which may apply to the Project:

- Rule 401 – Visible Emissions: This rule States that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- Rule 402 – Nuisance: This rule States that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Project:

- Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 1121 – Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters: This rule specifies NO_X emission limits for natural gas-fired water heaters, with heat input rates less than 75,000 British thermal units (BTUs) per hour.
- Rule 1138 – Control of Emissions from Restaurant Operations: This rule specifies emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat. The rule requires charbroilers to be equipped and operated with a

control device that has been certified by the manufacturer to reduce particulate matter emissions by at least 85 percent.

- Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- Rule 1186 – PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIV – Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants. The following is a list of rules which may apply to the Project:

- Rule 1470 - Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines: This rule was implemented to control particulate matter emissions in accordance with CARB's Air Toxics Control Measures for Stationary Compression Ignition Engines. For engines greater than 50 horsepower, the rule requires owners or operators to comply with requirements for fuel use, operating parameters, emissions standards, and reporting requirements.

Regional Comprehensive Plan and Guide and Congestion Management Plan

Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated metropolitan planning organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG has prepared the RTP and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts, form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

2.4 Local

Burbank 2035 General Plan

Local jurisdictions, such as the City of Burbank (City), have the authority and responsibility to reduce air pollution through its police power and decision-making authority. The City reviews project plans for consistency with environmental regulations and other conditions applicable to proposed development. The City is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts,

energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA, the City has the authority to obtain input from other local agencies and may consult with any person with special expertise relating to the project environmental impacts to assess air quality impacts of new development projects. If significant impacts are found, the City has the authority to require mitigation of potentially significant air quality impacts by conditioning discretionary permits and monitors and enforces implementation of such mitigation measures.

The Burbank 2035 General Plan (City's General Plan) was adopted in 2013 to provide guidance for future development necessary to achieve the community's economic, physical as well as environmental goals through the year 2035. The City's General Plan provides an *Air Quality and Climate Change Element* that outlines goals and policies that is aimed to reduce both air pollution and greenhouse gas (GHG) emissions, and to protect the community from TACs and odors. In addition, the City's General Plan includes a *Land Use Element* that provides relevant aims and measures regarding air quality as it defines appropriate locations for different land uses including open space, parks, residences, commercial uses, industry, schools, and other public uses. Consistency with these goals and policies would assure that sensitive land uses such as homes and schools are not positioned near potentially harmful developments and land uses that could negatively affect public health. Lastly, the General Plan contains a *Mobility Element* with objectives and guidelines relevant to air quality as it outlines regulations regarding the future development of the city's transportation network with goals and policies geared to improve congestion, access to transit, and walkability. Being consistent with these goals and policies would allow the project to reduce single occupancy vehicle trips and vehicle miles traveled(VMT), thus reducing air pollutants from mobile sources.

City of Burbank 2035 General Plan

The City's General Plan also contains a number of policies aimed at improving air quality within the city. The City's General Plan was updated in 2013 to set forth objectives, policies, standards, and programs for land use and new development, including clean air goals. Applicable measures of the City's General Plan Air Quality and Climate Change Element are specified below as being the most current standards. These measures will be implemented in connection with development of the Airport.[17]

Goal 1: Reduction of Air Pollution

Policy 1.3: Continue to participate in the Cities for Climate Protection Program, South Coast Air Quality Management District's (SCAQMD's) Flag Program, SCAQMD's Transportation Programs (i.e., Rule 2202, Employee Rideshare Program), and applicable State and Federal air quality and climate change programs.

Policy 1.5: Require projects that generate potentially significant levels of air pollutants, such as landfill operations or large construction projects, to incorporate best available air quality and greenhouse gas mitigation in project design.

[17] City of Burbank 2035 General Plan, February 2013. http://www.burbankca.gov/home/showdocument?id=23448. Accessed on September 1, 2017.

Policy 1.6: Require measures to control air pollutant emissions at construction sites and during soil- disturbing or dust-generating activities (i.e., tilling, landscaping) for projects requiring such activities.

Policy 1.9: Encourage the use of zero-emission vehicles, low-emission vehicles, bicycles, and other non-motorized vehicles, and car-sharing programs. Consider requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

Goal 2: Sensitive Receptors

Policy 2.1: Mitigate emissions from retail food grilling and barbequing (indoor and outdoor) through the use of industry-specific equipment.

Policy 2.2: Separate sensitive uses such as residences, schools, parks, and day care facilities from sources of air pollution and toxic chemicals. Provide proper site planning and design features to buffer and protect when physical separation of these uses is not feasible.

Policy 2.3: Require businesses that cause air pollution to provide pollution control measures.

SECTION 3
Significance Thresholds

Pursuant to Appendix G of the State *CEQA Guidelines*, the project would result in a significant impact related to air quality if it would:

AIR-1: Conflict with or obstruct the implementation of the applicable air quality plan;

AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

AIR-4: Expose sensitive receptors to substantial pollutant concentrations; or

AIR-5: Create objectionable odors affecting a substantial number of people.

Pursuant to the State *CEQA Guidelines* (Section 15064.7), a lead agency may consider using, when available, the significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The project would be under the SCAQMD's jurisdiction. SCAQMD has established air quality significance thresholds in its CEQA Air Quality Handbook. These thresholds are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health.[18] The City has not adopted specific City-wide significance thresholds for air quality impacts, it is appropriate to rely on thresholds established by the SCAQMD (refer to *CEQA Guidelines* Section 15064.7). The potential air quality impacts of the project are, therefore, evaluated according to the most recent thresholds adopted by the SCAQMD in connection with its CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent SCAQMD guidance as discussed previously.[19]

3.1 Construction Emissions

Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numeric indicators of significance specific to construction activity.

18 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.

19 While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects such as the Project. As a result, lead emissions are not further evaluated in this Draft EIR.

Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

- Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily regional emissions thresholds:[20]
  - 75 pounds a day for VOC
  - 100 pounds per day for NOx
  - 550 pounds per day for CO
  - 150 pounds per day for SO_2
  - 150 pounds per day for PM10
  - 55 pounds per day for PM2.5

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions of NO_X and/or CO during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for NO_2 and/or CO.[21]
- Maximum daily localized emissions of PM10 and/or PM2.5 during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site to exceed 10.4 $\mu g/m^3$ over 24 hours (SCAQMD Rule 403 control requirement).

As discussed previously under Methodology, the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions.

3.2 Operational Emissions

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have

20 South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2015), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed June 2017.

21 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (2008). Available: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed March 2017.

been promulgated to protect public health.[22] The SCAQMD has established numeric indicators of significance in part based on Section 182(e) of the Clean Air Act which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone.[23] As shown in Table 3, the Air Basin is designated as extreme non-attainment for ozone. The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year × 2,000 pounds per ton ÷ 365 days per year = 55 pounds per day). The numeric indicators for other pollutants are also based on Federal stationary source significance levels. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

- Regional operational emissions exceed any of the following SCAQMD prescribed daily regional emissions thresholds:[24]
  - 55 pounds a day for VOC
  - 55 pounds per day for NOx
  - 550 pounds per day for CO
  - 150 pounds per day for SO2
  - 150 pounds per day for PM10
  - 55 pounds per day for PM2.5

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following were to occur:

- Maximum daily localized emissions of NOx and/or CO during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for NO_2 and/or CO.[25]
- Maximum daily localized emissions of PM10 and/or PM2.5 during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the project site to exceed 2.5 $\mu g/m^3$ over 24 hours (SCAQMD Rule 1303 allowable change in concentration).

As discussed previously, the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air

22 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.

23 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-1.

24 South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2015), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed June 2017.

25 Ibid.

quality standards or ambient concentration limits without project-specific dispersion modeling. This analysis uses the SCAQMD screening criteria to evaluate impacts from localized emissions.

3.3 Carbon Monoxide Hotspots

With respect to the formation of CO hotspots, the project would be considered significant if the following would occur:

- The project would cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively.

3.4 Toxic Air Contaminants

Based on criteria set forth by the SCAQMD, the project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following were to occur:[26]

- The project would emit carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or an acute or chronic hazard index of 1.0.

As discussed previously, construction impacts from TACs are evaluated quantitatively in a refined Health Risk Assessment (HRA) due to the use of heavy-duty, diesel equipment. For operations, the impacts are analyzed quantitatively due to the anticipated sources of TACs associated with operation of the proposed land uses.

3.5 Odors

With respect to odors, the project would be considered significant if it created objectionable odors affecting a substantial number of people.

[26] South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants), (1993); SCAQMD Air Quality Significance Thresholds, (March 2011), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed June 2017.

SECTION 4
Methodology

The methodology to evaluate potential impacts to regional and local air quality that may result from the construction and long-term operations of the project is conducted as follows. Detailed modeling calculations are provided in Appendices A through D provided at the end of this report.

4.1 Consistency with Air Quality Plan

SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and PM2.5). SCAQMD's 2012 Air Quality Management Plan contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, which provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the Regional Comprehensive Plan and Air Quality Management Plan are based, in part, on projections originating with county and city General Plans.

The 2012 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed SCAQMD's significance thresholds. As noted above, while the 2016 AQMP was adopted by the SCAQMD and CARB, it has not been yet received USEPA approval for inclusion in the SIP. Therefore, until such time as the 2016 AQMP is approved by the USEPA, the 2012 AQMP remains the applicable AQMP.

4.2 Construction Emissions

Construction of the project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators, and through vehicle trips generated from workers and haul trucks traveling to and from the project Site. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NOx, would result from the use of construction equipment such as

dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using CalEEMod (Version 2016.3.1) software, an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from OFFROAD and EMFAC, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix A.

project design features discussed above are also incorporated into the construction emissions analysis. Use of EPA Tier 4 emissions compliant equipment would reduce regional and localized pollutant emissions.

Construction of the project is estimated to require 29 months, starting as early as the fourth quarter of 2018. Subphases of construction would include demolition of the paved surfaces, grading, foundations, building construction, paving, landscaping, and architectural coatings. Demolition activities would generate approximately 35,000 cubic yards of concrete debris and excavation will generate about 261,000 cubic yards of soils, both of which will be recycled and balanced on site. Heavy-duty equipment and vendor supply trucks would be used during construction activities. The maximum daily regional emissions from these activities are estimated by construction phase and compared to the SCAQMD significance thresholds. The maximum daily regional emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of project construction.

The localized effects from the portion of the construction emissions are evaluated based on mass emission rate look-up tables, or localized significance thresholds (LST) look-up tables, for nearby sensitive receptor locations potentially impacted by the project according to the SCAQMD's Localized Significance Threshold Methodology.[27] Of note, the SCAQMD LST Look-up tables contains thresholds for projects of one acre, two acres and five acres, which has higher thresholds for bigger project size, i.e., the allowed maximum daily emission rates increase as the project size increase from one to five acres. This project is bigger than five acres, so assumptively the allowed daily emission rates would be greater than the thresholds presented in the LST Look-up tables, but as a screening analysis, we conservatively used the SCAQMD screening criteria for a five-acre site to evaluate impacts from localized operational emissions. If daily emission rate

[27] South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed June 2017.

exceedance is identified through the screening analysis, it does not necessarily mean that the project impact is significant, rather refined dispersion modeling shall be conducted to compare the project impact to the localized pollutant concentration significance thresholds. The localized significance thresholds are only applicable to NO_X, CO, PM10, and PM2.5. Construction emissions from this project will be compared to the construction LSTs for a five-acre site in the SCAQMD SRA 7 and at 100-meter receptor distance off-site.

4.3 Operational Emissions

Besides retail, office and hotel operations, the creative industrial portion of the project might include entertainment company's storage facility for equipment and clothing, regional equipment storage/distribution/rental centers, and light assembly industry. The exact type of tenants to be located on project site is unknown, but heavy industry will not be allowed. The analysis quantified emissions from the following operational sources: vehicle trips traveling to and from the project Site; area sources such as natural gas combustion, landscaping equipment, and use of consumer products; and an emergency backup generator at the hotel. Operational impacts were assessed for the project buildout year of 2020 (i.e., operation starts as early as 2020 assuming construction begins at the earliest possible time in the fourth quarter of 2018).

The operational emissions were also estimated using the CalEEMod software to forecast the Project's daily regional emissions from mobile and area sources that would occur during long-term project operations. Mobile source emissions are based on the trip generation rates provided in the Project's Transportation Study, which accounts for trip reductions from public transportation options.[28] In calculating mobile-source emissions, the trip length values were based on the distances provided in CalEEMod. For industrial portion of the project, the trip counts in the Traffic Study did not differentiate the truck trips from the other vehicle trips. Compared to other land use types, the project's industrial portion of the land use could attract more truck trips and thus have more air emissions. Based on the Institute of Transportation Engineers (ITE, 9th edition), this analysis assumed truck trips account for 13% (the average value for industrial park, per ITE) of the total trips for the industrial land use portion, and also conservatively assumed that all trucks are heavy-heavy duty (HHD), and adjusted the CalEEMod default fleet mix accordingly. Also, based on SCAG's 2012 Regional Model for flat terrain, the passenger car equivalent (PCE) factor of 2.5 was used to estimate the total HHD truck trips to the industrial portion of the project would be 135 trucks per day.

Area source emissions are based on natural gas (building heating and water heaters), architectural coatings, landscaping equipment, and consumer product usage (including paints) rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the California Energy Commission California Commercial End Use Survey (CEUS) data set, which provides energy demand by building type and climate zone.[29] However, since the data from the CEUS is from

28 Traffic Impact Study for the Avion Mixed Use Development Project, Fehr and Peers, September 2017.

29 California Energy Commission, California Commercial End-Use Survey, http://capabilities.itron.com/CeusWeb/Chart.aspx. Accessed March 2017.

2002, correction factors are incorporated into CalEEMod to account for the appropriate version of the Title 24 Building Energy Efficiency Standards in effect.

An outdoor natural gas fueled fireplace will be one of the Project's amenities. The fireplace's criteria pollutants emissions were calculated based on USEPA AP-42 emission factors for natural gas combustion.

At the time of this report, the emergency backup generator had not been selected for the hotel yet. Based on the number of hotel rooms, we assumed the emergency generator will have a 350 kW diesel engine. The emergency generator emissions were calculated based on compliance with the Tier 4 emissions standards and compliance with SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines) mandated emission limits and operating hour constraints. As discussed previously, Rule 1470 applies to stationary compression ignition engine greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing. This analysis assumed the hotel emergency generator will operate two hours per day and 50 hours per year for testing and maintenance. The emission factors used in the calculations include the Tier 4 emission standards for VOC and NOx, SCAQMD Rule 1470 limits for CO, PM10 and PM2.5, and AP-42 Table 3.4-1 emission factor for SO_2.

Operational air quality impacts were assessed based on the incremental increase in emissions compared to baseline conditions. As discussed previously, the project site is partially developed with surface parking lots, only a small portion of it is being used for vehicle storage, and therefore does not generate substantial air pollutant emissions. As a conservative approach, this air quality analysis assumed the baseline emissions are zero. The maximum daily emissions from operation of the project are compared to the SCAQMD daily regional significance thresholds.

The localized effects from the the operational emissions were evaluated at nearby sensitive receptor locations potentially impacted by the project according to the SCAQMD's Localized Significance Threshold Methodology, which relies on mass emission rate screening tables. Similar to construction, the SCAQMD LST operational screening criteria applicable to a 5-acre site in SRA 7 with sensitive receptors distance of 100 meters was used. Detailed emissions calculations are provided in Appendix B.

The potential for the project to cause or contribute to CO hotspots was evaluated by comparing project intersections (both intersection geometry and traffic volumes) from the project Traffic Study[30] with prior studies conducted by SCAQMD in support of their AQMPs and considering existing background CO concentrations.

30 Traffic Impact Study for the Avion Mixed Use Development Project, Fehr and Peers, September 2017.

4.4 Toxic Air Contaminants (TACs)

To assess the risk of potential negative health outcomes (cancer, or other acute or chronic conditions) related to TACs exposure from airborne emissions during the Project's construction and operation, a refined quantitative HRA was prepared. The HRA evaluated the potential for increased health risks for off-site sensitive receptors due to the proposed project activities.

Construction

The greatest potential for TAC emissions during project construction will be related to DPM emissions associated with heavy-duty equipment during demolition, excavation and grading activities, building construction, paving and architectural coating. Construction activities associated with the project will be sporadic, transitory, and short term in nature. The construction HRA was performed in accordance with the revised OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA Guidance).[31] The analysis incorporates the estimated construction emissions and dispersion modeling using the USEPA AMS/EPA Regulatory Model (AERMOD) model with meteorological data from the closest SCAQMD meteorological monitoring station. Health impacts from construction were evaluated quantitatively.

Operations

As mentioned above, the Project would include retail, office, and hotel uses, the creative industrial portion of the project might include entertainment company's storage facility for equipment and clothing, regional equipment storage/distribution/rental centers, delivery fulfillment center, or light assembly industry. However, specific tenants to be located on project site is not known at this time. The zoning of the project (Planned Development - Development Review for the warehouse, office, and retail/restaurant buildings; and a Tentative Tract Map to subdivide the project site into separate legal lots for future sale, lease, or financing) does not allow heavy industry. Any sizable stationary emission sources will be subject to air permitting with the SCAQMD and their TACs impact will be minimized in accordance with SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants). Therefore, this HRA only assessed the impacts of DPM emissions from daily heavy-duty delivery trucks travelling to the project site, truck idling at the loading docks, and from emergency generator at the hotel. TACs emissions from the other miscellaneous area sources and the natural gas fireplace would be trivial and thus not included in the HRA. Operational health impacts were evaluated quantitatively for all sources of DPM.

Dispersion Modeling

Dispersion modeling for health risk impacts was performed using the AERMOD (version 16216r) dispersion model. For each receptor location, AERMOD generates air concentrations that result

31 Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, (2015).

from emissions from multiple sources. The AERMOD model requires numerous inputs, such as meteorological data, source parameters, topographical data, and receptor characteristics.

- *Meteorological Data.* The SCAQMD specifically recommends that projects use the nearest representative SCAQMD meteorological station for modeling, which is usually the nearest station; however, an interfering terrain feature may dictate the use of an alternate station.

- *Sources.* Construction and operations have a variety of emissions sources and each was given a specific AERMOD source type to accurately reflect their emissions, these are shown in **Table 4**, *Project Dispersion Modeling Source Types.* AERMOD model figures are provided in Appendix C.

TABLE 4
PROJECT DISPERSION MODELING SOURCE TYPES

Source	Source Type
Construction	
Off-road Equipment	Multiple volume sources
Vendor Truck Idling	Multiple volume sources
Vendor Trucks traveling within 1/4 mile of project site	Line-volume source
Operations	
Trucks (Onroad) traveling within 1/4 mile of project site	Line-volume source
Trucks Idling at Loading Dorks (On-site Idling)	Multiple area sources
Emergency Generator	Point

- *Receptors*. Receptors within 500 meters of the project boundary include residential receptors and worker receptors. This analysis focuses on residential impacts. Although off-site workers may be in close proximity to the project Site, their intermittent exposure duration would be less than that of a residence (8 hours compared to 24 hours) and adult breathing rates compared to children are lower as well. Therefore, worker impacts would be less than that of a residence. Discrete receptors were placed 25 meters apart on nearby residential areas within 500 meters of the project Site. In accordance with SCAQMD modeling guidance, receptor heights were set to 0 meters in order to analyze ground level impacts.

- *Terrain*. The modeling included terrain date provided within AERMOD. The terrain file used for the project site was 30-meter resolution data from the National Elevation Dataset. This file was processed using AERMAP for receptors and sources.

Health Risk Calculations

Health risk impacts were assessed using a spreadsheet tool based on the HARP2 model developed by CARB, which was released March 2015.[32] The health risk calculation methodology is

[32] California Air Resources Board, Hotspots Analysis Reporting Program, (2015). Available: https://www.arb.ca.gov/toxics/harp/eim2download.htm. Accessed October 2017.

consistent with the 2015 OEHHA *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. For this risk assessment, the AERMOD dispersion model output was converted into specific cancer risks and non-cancer chronic health hazard impacts. Health impacts addressed construction and operational DPM emissions and the effects on nearby sensitive uses (residential).

Health impacts are evaluated using a dose-response assessment, which describes the relationship between the amount of exposure to a substance (i.e., the dose) and the incidence or occurrence of injury (i.e., the response; OEHHA, 2015). In order to determine the total dose to off-site sensitive receptors, the applicable pathways of exposure and receptor locations were identified. The applicable exposure pathways determine the exposure algorithms that are used to estimate dose. After the exposure pathways were identified, the applicable fate and transport algorithms were used to estimate concentrations in the applicable exposure media (e.g., air) and the exposure algorithms were used to determine the substance-specific dose.

In accordance with the OEHHA Guidance, the inhalation pathway was evaluated for construction and operational related DPM. For the inhalation pathway, dose is directly proportional to the breathing rate. Using the methodology outlined in the OEHHA Guidance and the SCAQMD Supplemental Guidelines for Preparing Risk Assessments and Risk Reduction Plan for the Air Toxics "Hot Spots" Information and Assessment Act, the high-end breathing rates from Derived Risk Calculations using ARB's Risk Management Policy were used.

Cancer Risk

Once dose is calculated, cancer risk is calculated by accounting for cancer potency of the specific pollutant, age sensitivity, exposure duration, averaging time for lifetime cancer risk, and fraction of time spent at home (sensitive receptor). The cancer potency factor (CPF) is specific for each pollutant and is determined through peer-reviewed scientific studies. The Scientific Review Panel recommends a CPF for DPM of 3.0×10^{-4} $(\mu g/m^3)^{-1}$ and a slope factor of 1.1 $(ppm\text{-}day)^{-1}$.[33] The ASFs account for greater susceptibility in early life as compared to adult exposure, starting from the third trimester of pregnancy to 15 years. The fraction of time at home (FAH) takes into account the time actually residing at the sensitive receptor location. FAH also takes into account time spent at home for various age groups. For example, newborns are expected to reside at home for longer periods of time compared to school age children, and the elderly (retirees) are expected to spend more time at home compared to people of working age.

The estimation of cancer risk uses the following algorithms:

$$\text{Risk} = \text{Dose}_{\text{inhalation}} \times \text{Inhalation CPF} \times \text{ASF} \quad \text{(Equation 1)}$$

Where: $\text{Dose}_{\text{inhalation}} = \text{CAIR} \times \text{DBR} \times \text{A} \times \text{EF} \times \text{ED} \times \text{FAH} / \text{AT}$ (Equation 2)

Inhalation CPF = inhalation cancer potency factor

33 The Scientific Review Panel is charged with evaluating the risk assessments of substances proposed for identification as toxic air contaminants by CARB, OEHHA, and the Department of Pesticide Regulation (DPR), and the review of guidelines prepared by OEHHA.

ASF = age sensitivity factor

Where:

CAIR = concentration of compound in air in micrograms per cubic meter (µg/m3)
DBR = breathing rate in liter per kilogram of body weight per day (L/kg-body weight/day)
A = inhalation absorption factor (1 for DPM)
EF = exposure frequency in days per year (day/year)
ED = exposure duration in years (year)
FAH = fraction of time at home
AT = averaging time period over which exposure is averaged in days (day)

The daily breathing rate (DBR) used in the analysis are shown in **Table 5,** *High-End Residential Daily Breathing Rates from Derived Risk Calculations Using ARB's Risk for Point Estimate Dose Calculations (L / kg body weight)*. The recommended exposure frequency (EF) is 350 days per year which is equivalent to 0.96 (350 days / 365 days a year). The inhalation absorption factor (A) is assumed to be 1 for inhalation-based risk assessment.

TABLE 5
HIGH-END RESIDENTIAL DAILY BREATHING RATES FROM DERIVED RISK CALCULATIONS USING ARB'S RISK FOR POINT ESTIMATE DOSE CALCULATIONS (L / KG BODY WEIGHT)

Receptor Type	3rd Trimester	0<2 Years	2<16 Years	16<30 Years
Resident Child	361	1090	631	261

SOURCES: SCAQMD Supplemental Guidelines for Preparing Risk Assessments and Risk Reduction Plan for the Air Toxics "Hot Spots" Information and Assessment Act. 2016. HARP2 (dated 17052).

As indicated in Equation 1 above, each age group has different exposure parameters which require cancer risk to be calculated separately for each age group. As a conservative approach, this analysis did not take into account FAH adjustments for age bins less than 16 years used a value of 1.0, the FAH values used for age bins greater than or equal to 16 years was the HARP2 default of 0.73. Once dose is calculated, cancer risk is calculated by accounting for cancer potency of the specific pollutant, and the age sensitivity factor (ASF).

The incremental increase in cancer risk is the dose multiplied by the pollutant-specific CPF values. Cancer risk is calculated by multiplying the inhalation dose by the inhalation CPF to yield the potential inhalation excess cancer risk. Cancer risk was evaluated for residences in the surrounding area.

Cancer risk significance threshold is based on a 30-year sensitive receptor exposure scenario. Since this project will last for more than 30 years, a child could be born at the beginning of the construction and thus being exposed to both the construction and operational impact of the project during those 30 years, and a child could also be born at the beginning of the project operation and

thus exposed to the operational impact for 30 years. Because construction and operation will have different emissions, this analysis calculated two 30-year cancer risk scenarios, one for a combination of two years and five months of construction plus 27 years and seven months of operation, and the other for 30 years of operation.

Non-Cancer Risk

Non-cancer chronic impacts were assessed based on the Hazard Index (HI). The evaluation of chronic impacts is based on the maximum annual emissions over a 12-months period of construction or operational activity. The chronic Hazard Index is calculated by dividing the maximum modeled annual average concentration at the maximum impacted sensitive receptor by the Reference Exposure Level (REL). The REL is the concentration at or below which no adverse health effects are anticipated. For example, OEHHA has recommended an ambient concentration of 5 $\mu g/m^3$ as the chronic inhalation REL for DPM exhaust. Therefore, a sensitive receptor exposed to an annual average DPM concentration of 5 $\mu g/m^3$ or less will not result in a chronic impact. Non-cancer chronic impacts affect specific target organ systems (also called toxicological endpoints), such as the eye, nervous system, reproductive system, and respiratory system. The chronic health impact with the maximum Hazard Index for the same target organ system is used for impact determination. As a conservative assumption, the non-cancer health impact analyses do not take into account FAH.

4.5 Odors

Odor impact is subjective. It depends on the nature of the odor source, distance between the receptor and the source, and the local meteorological conditions. There are no established significance thresholds for odor impacts from mixed used developments, therefore, this analysis addresses the odor impact qualitatively.

SECTION 5
Environmental Impacts

5.1 Consistency with Air Quality Plan (AIR-1)

Threshold AIR-1: The project would result in a significant impact if the project would conflict with or obstruct the implementation of the applicable air quality plan.

Impact Statement AIR-1: Project construction would not conflict with or obstruct implementation of relevant air quality policies in the adopted AQMP. Due to exceedance of SCAQMD's regional significance threshold for NOx, operation of the project would potentially conflict with or obstruct implementation of relevant air quality policies in the adopted AQMP (Significant and Unavoidable Impact with Mitigation).

Construction

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or residential units) upon which the air quality plan is based. The project would result in an increase in short-term employment compared to existing conditions. Although the project will require many workers over the construction process, these jobs are temporary in nature. Construction jobs under the project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The project would utilize off-road diesel equipment greater than 50 hp that meet USEPA Tier 4 off-road emission standards, as per PDF-AIR-1. Additionally, the project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the project would not conflict with the control strategies intended to reduce emissions from construction equipment, the project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

Operation

The AQMP was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP.

The project site is located Burbank and currently has two zoning designations, Golden State Commercial/Industrial and Airport. As previously Stated, the project would require a General Plan Amendment to change the land use designation from Airport to Golden State Commercial/Industrial for the western most 18-acre portion of the approximately 61-acre site. The project would redevelop the underutilized land into a mixed campus that would provide retail amenities to serve the project and surrounding businesses, encourage alternative modes of transportation by installing the prewiring for 126 electric vehicle charging stations, four bike share stations, and bicycle parking, and dedicating 40 parking stalls for use at the future Metrorail Link station, as per PDF-AIR-2. The project site is currently serviced by multiple bus routes provided by Los Angeles Metro and BurbankBus, it will provide two more bus stops upon project buildout, one along North Hollywood Way and North San Fernando Blvd. The project would also include circulation improvements by widening and extending surrounding streets such as Hollywood Way, Tulare, Kenwood, Cohasset, and San Fernando, providing on-street bike lanes along North Hollywood Way and Tulare Avenue, as well as operating a shuttle service to serve the Golden State District and the Metrolink stations. The project would also provide safe access and connectivity for pedestrians and bicyclists to the future Burbank Airport-North Metrolink Station Overall, these project characteristics have the potential to reduce single occupancy vehicle trips and their associated criteria pollutant emissions. Table 6, *Project Consistency with the Burbank 2035 General Plan Air Quality Goals and Policies* summarizes the measures and features the project would incorporate to be consistent with the air quality goals and policies of the City's General Plan.

TABLE 6
PROJECT CONSISTENCY WITH THE BURBANK 2035 GENERAL PLAN AIR QUALITY GOALS AND POLICIES

Goal: Reduction of Air Pollution	Consistency
Policy: Continue to participate in the Cities for Climate Protection Program, South Coast Air Quality Management District's (SCAQMD's) Flag Program, SCAQMD's Transportation Programs (i.e., Rule 2202, Employee Rideshare Program), and applicable State and Federal air quality and climate change programs.	Consistent: The project is served by a high level of public transit. The project is approximately 0.9 miles from the existing Burbank Airport-North Metrolink and will be adjacent to the Burbank Airport-North Metrolink station. In addition, there will be three local Metro bus stops, with on existing and two added by the Project, adjacent to the project Site. Mitigation measures would also be implemented to encourage the use of public transit. Also, contribute to higher frequency bus service or operate a shuttle service.
Require projects that generate potentially significant levels of air pollutants, such as landfill operations or large construction projects, to incorporate best available air quality and greenhouse gas mitigation in project design.	Consistent: The project would incorporate PDFs for construction and operation to reduce air quality impacts. For construction, the project would use off-road equipment that meets USEPA Tier 4 engine standard and comply with appropriate dust control measures (SCAQMD Rule 403) and the Air Toxic Control Measure to reduce idling emissions (this applies to operations as well). For operations, the

Goal: Reduction of Air Pollution	Consistency
	project would incorporate mandatory and voluntary measures of the CALGreen Code. The project would reduce energy and water consumption, plant approximately 900 trees, provide electric vehicle charging stations, four bike share stations, and connectivity to the future Burbank Airport-North Metrolink station.
Require measures to control air pollutant emissions at construction sites and during soil- disturbing or dust-generating activities (i.e., tilling, landscaping) for projects requiring such activities.	Consistent: The project would use off-road equipment that meets USEPA Tier 4 engine standard and comply with appropriate dust control measures (SCAQMD Rule 403) and the Air Toxic Control Measure to reduce idling emissions.
Encourage the use of zero-emission vehicles, low-emission vehicles, bicycles, and other non-motorized vehicles, and car-sharing programs and shuttle system. Consider requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.	Consistent: The project would install prewiring for 126 electric vehicle charging stations, provide four bike sharing stations, and provide on street bicycle lanes along North Hollywood Way and Tulare Avenue. The project would also implement mitigation measures to reduce single occupancy vehicle trips and encourage the use of public transit. The project would participate in the Citywide Transportation Management Organization and incorporate a shuttle system for the project. Potential measures include: providing incentives for employees to use public transportation such as discounted transit passes, reduced ticket prices; and implementing ridesharing programs, such as carpools/vanpools.
Goal: Sensitive Receptors	
Policy: Mitigate emissions from retail food grilling and barbecuing (indoor and outdoor) through use of industry-specific equipment	Consistent: The project would include restaurants as part of its retail land use. The restaurants would comply with industry specific equipment to reduce emissions from grilling and barbecuing.
Require business that cause air pollution to provide pollution control measures.	Consistent: The creative industrial spaces would generate daily trips from heavy-duty diesel delivery trucks. Mitigation measures would be implemented to reduce emissions during loading/unloading activities. Potential measures include requiring signage to be posted at all loading docks and/or delivery areas directing drivers to shut down their trucks after five minutes of idle time and requiring loading docks or dedicated delivery areas to provide electrical connections for trucks with refrigeration units (TRUs) and require that all electric-capable TRUs utilize the connections when in use. Such projects shall be required to post signage at all loading docks and/or dedicated delivery areas directing electric-capable TRU operators to utilize the connections. Also, project site employers who own and operate truck fleets shall be required to inform their drivers of the anti-idling policy. Any other emission sources from the future tenants will be contained by the air permitting program of the SCAQMD.

project construction would generate short-term employment resulting in approximately 1,440 direct (on-site) jobs. When the project is fully operational it would generate approximately 2,119 direct (on-site) jobs. According to (SCAG), Burbank's forecast for population, household, and employment growth for the period between 2012 and 2040 is 15,400, 5,900, and 38,200, respectively. The estimated number of employees generated by the project are within SCAG's

employment growth assumptions for Burbank. As such, the project would not generate growth beyond the range of development anticipated within the established SCAG regional forecast for Burbank. The project would not increase or induce residential density growth not otherwise anticipated.

As discussed in Section 5.2 below, peak daily NOx emissions from project operations would exceed the corresponding SCAQMD regional significance threshold. Thus, the project would conflict with or obstruct implementation of the AQMP, and impacts would be significant.

5.2 Regional Impacts (AIR-2)

Threshold AIR-2: The project would result in a significant impact if the project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Statement AIR-2: Construction of the project would not exceed the applicable SCAQMD significance thresholds. Operation of the project would exceed the SCAQMD daily significance threshold for regional NOx. Therefore, impacts related to regional emissions of NOx from operation of the project would be significant. (Significant and Unavoidable Impact with Mitigation)

Construction Emissions

The worst-case daily construction emissions were calculated as maximum daily construction emissions (pounds per day) for each phase by year. Some project construction phases do overlap and the maximum daily emissions are predicted values for the worst-case day and do not represent the emissions that would occur for every day of construction. Results of the criteria pollutant calculations are presented in **Table 7**, *Maximum Unmitigated Regional Construction Emissions*. These calculations include appropriate dust control measures required to be implemented during each phase of development, as required by SCAQMD Rule 403 (Control of Fugitive Dust).

As shown in Table 7, construction-related daily emissions for the criteria and precursor pollutants (VOC, NOx, CO, SO_X, PM10, and PM2.5) would be below SCAQMD significance thresholds. Therefore, with respect to regional emissions from construction activities, impacts would be less than significant.

TABLE 7
MAXIMUM UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY)[a]

Source	VOC	NOX	CO	SO_2	PM10[b]	PM2.5[b]
Demolition -Phase 1 - 2018	<1	6	33	<1	21	3
Grading-Phase 1 - 2018	4	16	129	<1	8	4
Drainage/Utilities/Trenching-Phase 1 - 2018	<1	3	24	<1	<1	<1
Foundation-Phase 1 - 2018	2	18	74	<1	1	<1
Drainage/Utilities/Trenching-Phase 2 - 2018	<1	2	19	<1	<1	<1
Foundation-Phase 2 - 2018	1	9	57	<1	<1	<1
Foundation-Phase 2 - 2019	1	9	57	<1	<1	<1
Paving-Phase 1 - 2018	<1	4	30	<1	<1	<1
Paving-Phase 1 - 2019	<1	4	29	<1	<1	<1
Building Construction-Phase 1 - 2018	6	12	91	<1	7	2
Building Construction-Phase 1 - 2019	5	12	88	<1	7	2
Building Construction-Phase 2 - 2019	3	11	54	<1	3	1
Building Construction-Phase 2 - 2020	3	10	53	<1	3	1
Architectural Coating-Phase 1 - 2019	55	9	24	<1	1	<1
Landscaping-Phase 1 - 2019	<1	8	19	<1	<1	<1
Paving-Phase 2 - 2020	2	2	18	<1	<1	<1
Landscaping-Phase 2 - 2020	<1	4	8	<1	<1	<1
Architectural Coating-Phase 2 - 2020	7	5	16	<1	<1	<1
Overlapping Phases						
2018: Phase 1 (Demolition + Grading)	5	22	162	<1	29	7
2018: Phase 1 (Demolition + Drainage/Utilities/Trenching)	4	18	153	<1	<1	<1
2018: Phase 1 (Foundation + Drainage/Utilities/Trenching)	2	20	93	<1	8	4
2018: Phase 1 (Foundation + Paving) + Phase 2 (Foundation)	4	31	160	<1	<1	<1
2018: Phase 1 (Building Construction + Paving) + Phase 2 (Foundation)	8	25	177	<1	1	<1
2019: Phase 1 (Building Construction + Paving) + Phase 2 (Foundation)	7	24	174	<1	<1	<1
2019: Phase 1 (Building Construction + Paving + Architectural Coating) + Phase 2 (Building Construction)	64	35	195	<1	2	<1
2019: Phase 1 (Landscaping + Architectural Coating) + Phase 2 (Building Construction)	59	27	96	<1	<1	<1
2020: Phase 2 (Paving + Landscaping + Architectural Coating)	9	11	41	<1	<1	<1
Maximum Daily Emissions [c]	**64**	**35**	**195**	**<1**	**29**	**7**
SCAQMD Thresholds	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

NOTES:

[a] Totals may not add up exactly due to rounding in the modeling calculations. Combined rows account for overlapping emissions from the listed activities. Detailed emissions calculations are provided in Appendix A.

[b] Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

[c] Analysis accounted for emissions from overlapping phases.

SOURCE: ESA, 2017

Operational Emissions

Operational criteria pollutant emissions were calculated for area, energy, mobile and stationary sources for the project buildout year of 2020. Daily trip generation rates for the project were provided by the project traffic study[34] and include trips associated with the proposed mixed used campus.

Results of the criteria pollutant calculations are presented in Table 8, Maximum Unmitigated Regional Operational Emissions. The operational-related daily emissions for the criteria and precursor pollutants (VOC, CO, SO_X, PM10, and PM2.5) would be below the SCAQMD thresholds of significance, however, the project would exceed the regional emissions threshold for NOx. Because the project site is currently partially developed with surface parking lot and does not generate criteria pollutants, this analysis took the conservative approach of counting all emissions as net new. This result was thus expected given that this a relatively large Project.

TABLE 8
MAXIMUM UNMITIGATED REGIONAL OPERATIONAL EMISSIONS (POUNDS PER DAY)[a]

Source	VOC	NO_X	CO	SO_X	PM10	PM2.5
Area	27	<1	<1	<1	<1	<1
Energy	<1	4	4	<1	<1	<1
Mobile	19	113	256	1	65	18
Stationary Sources (Emergency Generator)	<1	<1	4	<1	<1	<1
Maximum Daily Emissions	47	118	264	1	66	19
SCAQMD Regional Significance Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	Yes	No	No	No	No

[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

SOURCE: ESA, 2017

In reality, many future employees and visitors to the amenities provided by the project likely already travel within the Basin and generate mobile-source emissions there. For example, a new mixed use campus development implemented pursuant to the project could redistribute existing vehicle trips from a similar existing mixed use campus development. In such cases, regional mobile source emissions could be unchanged or even reduced if the new mixed-use campus development is located closer to customers compared to the existing retail development. It is unknown at this time to what extent new developments implemented pursuant to the project would result in net new emissions or would relocate or redistribute existing sources of emissions. As such, the NOx emissions shown in Table 8 are based on the highly conservative assumption that operation of the land uses proposed under the project would result in all net new emissions. It is likely that the actual incremental increase in regional emissions from operation of the land uses proposed under the project could be substantially lower. Nevertheless, impacts related to

[34] Traffic Impact Study for the Avion Mixed Use Development Project, Fehr and Peers, September 2017.

regional emissions from operation of the project would be potentially significant, requiring mitigation.

Since operation of the project would potentially exceed the regional significance thresholds for NOx, the project could contribute to health impacts related to these pollutants. Because NOx is an ozone precursor emission, the project could contribute to impacts related to regional ozone formation and related ozone health impacts. As described above in subsection 1.5, potential health effects could result from exposure to pollutant concentrations in excess of applicable ambient air quality standards for ozone and NOx including but, not limited to, irritation of the lungs, nose, and throat, coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise, potential aggravation of lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. However, due to the dispersive effects of meteorology (wind, temperature, humidity, etc.) and the geographic distribution of the emissions, an exceedance of a mass emissions numeric indicator from project-related activities does not necessarily result in exposure of sensitive receptors to ground-level concentrations in excess of health-protective levels.

Project operational emissions would be regional in nature as they would occur over a relatively large area from multiple individual developments associated within the Project's approximately 61-acre site. As shown in Table 8, the majority of the emissions are from mobile sources; therefore, the majority of the emissions would occur from vehicles traveling over regional roadways. In addition, ground-level ozone formation occurs through a complex photo-chemical reaction between NOx and VOCs in the atmosphere with the presence of sunlight, the impacts of ozone are typically considered on a basin-wide or regional basis instead of a localized basis. According to CARB, anthropogenic sources of emissions in the Basin emit a total of approximately 514 tons of NOx per day.[35] Table 8 indicates that maximum operational emissions from the project could be up to 0.059 tons (118 pounds) of NOx per day. This represents approximately 0.011 percent of the Basin's NOx emissions. As noted above, this assumes that all project emissions are considered net new emissions, which is a highly conservative assumption that likely overestimates the Project's actual incremental increase in regional emissions. Given that the project's emissions would constitute a very small portion of the Basin's emissions and would occur over a relatively large area (primarily due to motor vehicles traveling on regional roadways) and given that meteorological effects, such as wind, would disperse the pollutants, it is unlikely that the exceedance of the NOx regional threshold from operations would result in a measurable increase in the respective pollutant concentrations in proximity to the project area or elsewhere in the Basin to a degree that measureable heath impacts would result.

35 2016 SIP Emission project Data, 2012 Estimated Annual Average Emissions for South Coast Air Basin. CARB 2016. https://www.arb.ca.gov/app/emsinv/2017/emssumcat_query.php?F_YR=2012&F_DIV=0&F_SEASON=A&SP=SIP105ADJ&F_AREA=AB&F_AB=SC#7 Accessed on September 28, 2017.

5.3 Cumulatively Considerable Non-Attainment Pollutants (AIR-3)

Non-Attainment Criteria Pollutants

Threshold AIR-3: The project would result in a significant impact if the project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Statement AIR-3: The South Coast Air Basin is designated as non-attainment for O_3, PM10, and PM2.5 under Federal and/or State ambient air quality standards. Construction of the project would not exceed the applicable SCAQMD significance thresholds for ozone precursor emissions (i.e., VOCs and NOx), PM10, or PM2.5. The Project's daily operations emissions for NOx would exceed the SCAQMD regional significance threshold. Because of this exceedance, the project may contribute incrementally to regional ozone and therefore may result in potentially significant impacts. (Significant and Unavoidable Impact with Mitigation)

Construction

The project would result in the emission of criteria pollutants for which the project area is in non-attainment during construction. A significant impact may occur if a project would add a cumulatively considerable contribution of a Federal or State non-attainment pollutant. The Air Basin is currently in non-attainment under Federal or State standards for ozone, PM10, and PM2.5. The emissions from construction of the project are not predicted to exceed any applicable SCAQMD regional or local impact threshold and therefore, are not expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Therefore, the project would not result in a cumulatively considerable net increase for non-attainment pollutants or ozone precursors and would result in a less than significant impact for construction emissions.

Operation

Future operations would generate ozone precursors (i.e., VOCs and NOx), CO, SO_2, PM10, and PM2.5. As discussed above, the project would exceed the SCAQMD's regional significance threshold for NOx, but would not exceed localized significance thresholds. It is not possible to determine regional ozone impacts from a project's ozone precursor emissions. Nonetheless, as the project would have maximum daily emissions that exceed the thresholds for NOx, implementation of the project would contribute incrementally to regional ozone and therefore might result in potentially significant impacts.

5.4 Substantial Pollutant Concentrations (AIR-4)

Expose Sensitive Receptors to Substantial Pollutant Concentrations

Threshold AIR-4: The project would result in a significant impact if the project would expose sensitive receptors to substantial pollutant concentrations.

Impact Statement AIR-4: Construction and operation of the project would not exceed the localized significance thresholds at off-site sensitive receptors. The project would not cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively. Therefore, CO hotspots impacts would be less than significant. Construction of the project would not generate emissions of TACs (i.e., diesel particulate matter) that would result in a significant health impact to off-site sensitive receptors. Operation of the project would not include permanent sources (equipment, etc.) that would generate substantial long-term TAC emissions in excess of the health risk thresholds. Therefore, construction and operational TAC impacts would be less than significant. (Less than Significant Impact)

Localized Construction Emissions

The localized construction air quality analysis was conducted using the methodology described in the SCAQMD Localized Significance Threshold Methodology (June 2003, revised July 2008).[36] The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project. As previously discussed, SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project. The thresholds are based on applicable short-term (24-hrs) CAAQS and NAAQS.

Using the Localized Significance Threshold Methodology, the results of the analysis determined localized Project-related construction emissions would be below the SCAQMD thresholds of significance. Results of the pollutant calculations are presented in **Table 9**, *Maximum Unmitigated Localized Construction Emissions*. The emissions for increase in construction-related daily emissions for the criteria and precursor pollutants (NOx, CO, PM10, and PM2.5) would be substantially below the SCAQMD thresholds of significance. Therefore, Project-related localized construction emissions would result in a less than significant impact.

36 South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed March 2017.

TABLE 9
MAXIMUM UNMITIGATED LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY)[a]

Source	NOx	CO	PM10[b]	PM2.5[b]
Demolition -Phase 1 - 2018	5	32	21	3
Grading-Phase 1 - 2018	15	126	7	4
Drainage/Utilities/Trenching-Phase 1 - 2018	2	23	<1	<1
Foundation-Phase 1 - 2018	10	69	<1	<1
Drainage/Utilities/Trenching-Phase 2 - 2018	2	18	<1	<1
Foundation-Phase 2 - 2018	7	55	<1	<1
Foundation-Phase 2 - 2019	7	55	<1	<1
Paving-Phase 1 - 2018	2	28	<1	<1
Paving-Phase 1 - 2019	2	28	<1	<1
Building Construction-Phase 1 - 2018	9	62	<1	<1
Building Construction-Phase 1 - 2019	9	62	<1	<1
Building Construction-Phase 2 - 2019	9	45	<1	<1
Building Construction-Phase 2 - 2020	9	45	<1	<1
Architectural Coating-Phase 1 - 2019	8	19	<1	<1
Landscaping-Phase 1 - 2019	7	18	<1	<1
Paving-Phase 2 - 2020	1	17	<1	<1
Landscaping-Phase 2 - 2020	3	7	<1	<1
Architectural Coating-Phase 2 - 2020	4	14	<1	<1
Overlapping Phases				
2018: Phase 1 (Demolition + Grading)	20	158	28	7
2018: Phase 1 (Demolition + Drainage/Utilities/Trenching)	17	149	7	4
2018: Phase 1 (Foundation + Drainage/Utilities/Trenching)	11	88	<1	<1
2018: Phase 1 (Foundation + Paving) + Phase 2 (Foundation)	19	152	<1	<1
2018: Phase 1 (Building Construction + Paving) + Phase 2 (Foundation)	18	145	<1	<1
2019: Phase 1 (Building Construction + Paving) + Phase 2 (Foundation)	18	145	<1	<1
2019: Phase 1 (Building Construction + Paving + Architectural Coating) + Phase 2 (Building Construction)	28	154	<1	<1
2019: Phase 1 (Landscaping + Architectural Coating) + Phase 2 (Building Construction)	24	81	<1	<1
2020: Phase 2 (Paving + Landscaping + Architectural Coating)	9	38	<1	<1
Maximum	**28**	**158**	**28**	**7**
SCAQMD Thresholds[c]	98	2599	56	15
Exceed Threshold?	No	No	No	No

[a] Totals may not add up exactly due to rounding in the modeling calculations. Combined rows account for overlapping emissions from the listed activities. Detailed emissions calculations are provided in Appendix A.

[b] Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

[c] The SCAQMD LSTs are based on Source Receptor Area 7 (East San Fernando Valley) for a 5-acre site within a 100-meter receptor distance for construction activities. The LST for NOx is adjusted based on the Federal NAAQS 1-hour standard (accounted for the standard change from 180 ppb to 100 ppb.

SOURCE: ESA, 2017

Localized Operational Emissions

The Project's localized operational air quality analysis was conducted using the methodology described in the SCAQMD Localized Significance Threshold Methodology (June 2003, revised July 2008). The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized operational emissions thresholds for the Project. The maximum daily increase in localized emissions and localized significance thresholds are presented in **Table 10**, *Maximum Unmitigated Localized Operational Emissions*. As shown therein, the increase in maximum localized operational emissions for sensitive receptors would be substantially below the localized thresholds for NOx, CO, PM10, and PM2.5. Therefore, with respect to localized operational emissions, impacts would be less than significant.

TABLE 10
MAXIMUM UNMITIGATED LOCALIZED OPERATIONAL EMISSIONS (POUNDS PER DAY)[a]

Source	NOx	CO	PM10	PM2.5
Area	<1	<1	<1	<1
Energy	4	4	<1	<1
Mobile (On-site Truck Idling)	11	1	<1	<1
Stationary Sources (Emergency Generator)	<1	4	<1	<1
Maximum Daily Emissions	**15**	**9**	**1**	**1**
SCAQMD Localized Significance Thresholds	98	2599	14	4
Exceeds Threshold?	No	No	No	No

[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.
b The SCAQMD LSTs are based on Source Receptor Area 7 (East San Fernando Valley) for a 5-acre site within a 100-meter receptor distance for operational activities. The LST for NOx is adjusted based on the Federal NAAQS 1-hour standard (accounted for the standard change from 180 ppb to 100 ppb.
SOURCE: ESA, 2017

Carbon Monoxide Hotspots

The potential for the project to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the project would not cause or contribute considerably to the formation of CO hotspots, that CO concentrations at project impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

As shown previously in Table 1, CO levels in the project area are substantially below the Federal and State standards. Maximum CO levels in recent years are 3 ppm (1-hour average) and 3.0 ppm (8-hour average) compared to the thresholds of 20 ppm (1-hour average) and 9.0 ppm (8-hour average). CO levels decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time and the Air Basin is currently designated as a CO attainment area for both

the CAAQS and NAAQS. Thus, it is not expected that CO levels at Project-impacted intersections would rise to the level of an exceedance of these standards.

Additionally, SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin: (1) Wilshire Boulevard and Veteran Avenue; (2) Sunset Boulevard and Highland Avenue; (3) La Cienega Boulevard and Century Boulevard; and (4) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in the 2003 AQMP (Table 4-10 of Appendix V) shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (1-hour average) and 3.2 (8-hour average) at Wilshire Boulevard and Veteran Avenue. When added to the existing background CO concentrations, the screening values would be 7.6 ppm (1-hour average) and 6.2 ppm (8-hour average).

Based on the Project's Traffic Study,[37] of the studied intersections that are predicted to operate at a Level of Service (LOS) D, E, or F under future operational year plus project conditions, one intersection would potentially have peak traffic volumes of approximately 67,130 per day, which is the maximum of this project and is less than the 100,000 vehicles per day in the 2003 AQMP. As a result, CO concentrations are expected to be less than those estimated in the 2003 AQMP, which would not exceed the thresholds. Thus, this comparison demonstrates that the project would not contribute considerably to the formation of CO hotspots and no further CO analysis is required. The project would result in less than significant impacts with respect to CO hotspots.

Toxic Air Contaminants

Table 11, *Maximum Incremental Increase in Carcinogenic Risk for Off-Site Sensitive Receptors*, summarizes the carcinogenic risk for the maximum impacted sensitive receptors. **Table 12,** *Maximum Incremental Increase in Hazardous Index for Off-Site Sensitive Receptor*, summarizes the non-carcinogenic risk for the maximum impacted sensitive receptors. As shown, the maximum incremental increase in cancer risk will be up to approximately 3.97 in one million, which will not exceed the SCAQMD significance threshold of 10 in one million. The chronic health risk from the project are both less than 0.001, well below the significance threshold of 1. Therefore, the project health risk will not result in a potentially significant impact and mitigation measures will not be required.

37 Traffic Impact Study for the Avion Mixed Use Development Project, Fehr and Peers, September 2017.

TABLE 11
MAXIMUM INCREMENTAL INCREASE IN CARCINOGENIC RISK FOR OFF-SITE SENSITIVE RECEPTORS

	Maximum Cancer Risk (# in one million) [a]	
Sensitive Receptor	**Construction and Operation**	**Operation**
Residential Land Use	**3.97**	**1.17**
Maximum Individual Cancer Risk Threshold	10	10
Exceeds Threshold?	No	No

a. Cancer risk values based on a 30-year exposure of maximum levels of DPM. The Construction and Operation risk was calculated assuming a child was born at the beginning of the project construction, and be exposed to both the project construction and operation impacts during those 30 years; Operational risk was calculated assuming a child is born at the beginning of project buildout year of 2020 and be exposed to operational impact for 30 years.

See Appendix C for additional details and modeling data.

SOURCE: ESA, 2017.

TABLE 12
MAXIMUM INCREMENTAL INCREASE IN HAZARDOUS INDEX FOR OFF-SITE SENSITIVE RECEPTORS

	Chronic Risk Hazard Index (HI) [a]	
Sensitive Receptor	**Construction**	**Operation**
Residential Land Use	**0.001**	**0.0003**
Significance Threshold	1.0	1.0
Exceeds Threshold?	No	No

a. Chronic risk HI values based on the annual maximum levels of DPM divided by the corresponding DPM reference exposure levels (RELs).

SOURCE: ESA, 2017.

5.5 Odors (AIR-5)

AIR-5: The project would result in a significant impact if it created objectionable odors affecting a substantial number of people.

Impact Statement AIR-5: Implementation of the project would not create objectionable odors affecting a substantial number of people. Construction and operation of the project include creative office and industrial spaces, retail, and a hotel. These land uses are not expected to be a source of off-site odor complaints. Therefore, the project would have a less than significant impact. (Less than Significant Impact)

Construction

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road

equipment. As discussed in the Regulatory Setting, Section 2, of this technical report, SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the project would result in less than significant impacts.

Operations

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project does not include any uses identified by SCAQMD as being associated with substantial odors. Odors associated with project operations would be limited to those associated with on-site waste generation and disposal (e.g., trash cans, dumpsters) and occasional minor odors generated during food preparation activities at restaurants. As a result, the project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the project would not create adverse odors affecting a substantial number of people and impacts would be less than significant.

SECTION 6
Cumulative Impacts

The SCAQMD CEQA Air Quality Handbook States that the "Handbook is intended to provide local governments, project proponents, and consultants who prepare environmental documents with guidance for analyzing and mitigating air quality impacts of projects."[38] The SCAQMD CEQA Air Quality Handbook also States that "[f]rom an air quality perspective, the impact of a project is determined by examining the types and levels of emissions generated by the project and its impact on factors that affect air quality. As such, projects should be evaluated in terms of air pollution thresholds established by the District."[39] The SCAQMD has also provided guidance on an acceptable approach to addressing the cumulative impacts issue for air quality as discussed below:[40]

> *"As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR… Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Because the City has not adopted specific City-wide significance thresholds for air quality impacts, it is appropriate to rely on thresholds established by the SCAQMD (refer to *CEQA Guidelines* Section 15064.7). While it may be possible to add emissions from the list of related projects and the Project, it would not provide meaningful data for evaluating cumulative impacts under CEQA because neither the City nor the SCAQMD have established numerical thresholds applicable to the summation of multiple project emissions for comparison purposes. Additionally, regional emissions from a project have the potential to affect the Air Basin as a whole, and unlike other environmental issue areas, such as aesthetics or noise, it is not possible to establish a geographical radius from a specific project site where potential cumulative impacts from regional emissions would be limited. Meteorological factors, such as wind, can disperse pollutants, often times tens of miles downwind from a project site. Therefore, consistent with accepted and established SCAQMD cumulative impact evaluation methodologies, the potential for the project to result in cumulative impacts from regional emissions is assessed based on the SCAQMD thresholds.

38 South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993, p. iii.

39 South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993, p. 6-1.

40 South Coast Air Quality Management District, Cumulative Impacts White Paper, Appendix D, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4, accessed May 2017.

6.1 Construction Impacts

The project would result in emissions of criteria air pollutants for which the region is in non-attainment during both construction and operation. The Air Basin fails to meet ambient air quality standards for O_3, PM10, and PM2.5, and therefore is designated as a "non-attainment" area for these pollutants. SCAQMD has designed significance thresholds to assist the region in attaining the applicable CAAQS and NAAQS, apply to both primary (criteria and precursor) and secondary pollutants (ozone). Although the project site is located in a region that is in non-attainment for ozone, PM10 and PM2.5, the emissions associated with project construction would not be cumulatively considerable, as the emissions would fall below SCAQMD daily regional significance thresholds.

Any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality.

With respect to the Project's short-term construction-related air quality emissions and cumulative conditions, SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the Federal CAA mandates. Construction of the project would comply with SCAQMD Rule 403 requirement, which focuses on reducing fugitive dust emissions and the ATCM to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time. In addition, the project would utilize off-road equipment that meets Tier 4 emissions standards. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects in the Air Basin, which would include the cumulative projects in the project Area. Consistent with SCAQMD guidance for cumulative impacts, regional and localized emissions would be less than SCAQMD significance thresholds as shown above in Table 7 and Table 9. As such, the Project's contribution to cumulatively significant construction air quality impacts would not be cumulatively considerable and cumulative impacts would be less than significant for regional and localized criteria pollutants during construction.

6.2 Operational Impacts

The SCAQMD's approach for assessing cumulative impacts related to operations or long-term implementation is based on attainment of ambient air quality standards in accordance with the requirements of the CAA and California Clean Air Act. As discussed earlier, the SCAQMD has developed a comprehensive plan, the AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a Federal or California non-attainment pollutant. Because the Los Angeles County portion of the Air Basin is currently in non-attainment for ozone, PM10, and PM2.5, cumulative projects

could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, Section 15064(h)(3) of the *CEQA Guidelines* provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

> *A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.*

For purposes of the cumulative air quality analysis with respect to *CEQA Guidelines* Section 15064(h)(3), the Project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD's adopted AQMP. Because the emissions from project operations would exceed the SCAQMD regional significance threshold for NOx, the project might conflict with or obstruct implementation of the AQMP.

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. The SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed above, peak daily operational-related emissions of NOx would exceed SCAQMD regional significance thresholds. By applying SCAQMD's cumulative air quality impact methodology, implementation of the project may result in an addition of criteria pollutants such that cumulative impacts, in conjunction with related projects in the region, would occur. Therefore, the emissions of non-attainment pollutants and precursors generated by project operation in excess of the SCAQMD thresholds would be cumulatively significant.

SECTION 7
Mitigation Measures

7.1 Construction

Mitigation measures for project construction are not required.

7.2 Operation

As previously discussed, the Project's peak daily operational emissions exceed SCAQMD's regional significance threshold for NOx. It should be noted however, that the Project's peak daily operational emissions do not exceed the SCAQMD's localized significance threshold for NOx. Furthermore, mobile source emissions of NOx are the major contributor for the exceedance and would take place off-site and over a large area. Mitigation measures (MM) below would be implemented to reduce the Project's regional impacts from NOx emissions:

> **MM AIR-1:** All commercial and industrial employers shall participate in the citywide Transportation Management Organization (TMO) and encourage employees to use the project's shuttle services, to help further reduce VMT emissions.
>
> **MM AIR-2:** Future commercial and industrial operations with loading docks or delivery trucks shall prohibit idling of on- and off-road heavy-duty diesel vehicles for prolonged periods pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes. Such operations shall be required to post signage at all loading docks and/or delivery areas directing drivers to shut down their trucks after five minutes of idle time. Also, site employers who own and operate truck fleets shall be required to inform their drivers of the anti-idling requirement.
>
> **MM AIR-3:** Future commercial and industrial operations with loading docks or dedicated delivery areas shall provide electrical connections for trucks with refrigeration units (TRUs) and require that all electric-capable TRUs utilize the connections when in use. Such operations shall be required to post signage at all loading docks and/or dedicated delivery areas directing electric-capable TRU operators to utilize the connections.

SECTION 8
Level of Significance After Mitigation

8.1 Construction

Not applicable to project construction.

8.2 Operation

As discussed above, the operation of the project at full buildout would cause emissions of NOx that exceed the SCAQMD regional daily threshold. It should be noted that the scenario analyzed presented conservative, worst-case emissions and that numerical exceedances of mass emissions thresholds do not equal a violation of ambient air quality standards. As shown in Table 8, mobile source emissions contribute the majority of NOx emissions from employees and visitors traveling to the Project. Using CAPCOA methodology, assuming 20 percent of the employees are eligible for TMO, mitigation measure AIR-1 could potentially reduce employee VMT by approximately 3 percent. Mitigation measures AIR-2 and AIR-3 would reduce on site NOx emissions from trucks idling. Predictions on the extent to which these required mitigation measures would reduce operational NOx emission would be speculative. However, given that the Project's unmitigated peak daily NOx emissions are more than twice the corresponding SCAQMD regional significance thresholds, the Project's NOx emissions will likely remain significant even with implementation of these mitigation measures. Therefore, the conclusion remains that impacts during operation of the project would be significant and unavoidable even with incorporation of all feasible mitigation measures. Cumulative impacts associated with operation of the project described above would also remain significant.

SECTION 9
Summary of Results

Air pollutant emissions associated with the project have been evaluated to determine the level of impact from construction activities and future operations of the Project.

9.1 Construction

Construction of the project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the project Site. In addition, fugitive dust emissions would result from grading and construction activities. However, the Project's off-road equipment would utilize equipment that meets Tier 4 emissions standards. The project would also comply with Rule 403 requirements (regarding dust control measures such as watering three times per day and track out prevention measures) to minimized fugitive dust emissions.

As shown in Table 7, regional construction emissions would not exceed the SCAQMD significance thresholds. Therefore, impacts related to regional construction emissions would be less than significant. As shown in Table 9, localized construction emissions would not exceed the SCAQMD significance thresholds either. Therefore, impacts related to localized construction emissions would also be less than significant. As a result, Project-related construction impacts would be less than significant.

9.2 Operation

Air pollutant emissions associated with project operations would be generated by vehicle trips traveling to and from the project Site, area sources on-site such as natural gas combustion, landscaping equipment, use of consumer products, and an emergency backup generator. As shown in Table 8, the project would exceed SCAQMD's regional significance threshold for NOx. As discussed previously, this analysis conservatively assumes that these emissions would be net new emissions for the Basin, although in reality, the future employees and visitors to the amenities provided by the project likely already travel within the Basin and generate mobile-source emissions there. Additionally, the Project's daily NOx emissions represent a fraction of a percent of the Basin's daily emissions and would occur over a relatively large area (primarily due to motor vehicles traveling on regional roadways) and given that meteorological effects, such as wind, would disperse the pollutants, it is unlikely that the exceedance of the NO_X regional threshold from operation would result in a measurable increase in the respective pollutant concentrations in proximity to the project area or elsewhere in the Basin to a degree that measureable heath impacts would result. The project would implement mitigation measures that have the potential to reduce NOx emissions from employee vehicle trips and truck idling, as well

as reduce emissions from energy consumption. As shown in Table 10, localized emissions of NOx, CO, PM10, and PM2.5 are substantially below SCAQMD's localized significance thresholds. In addition, the project would not result in a CO hotspot, or emit unhealthy levels of toxic air contaminants and odiferous emissions. However, NOx emissions would remain in excess of the SCAQMD's regional significance threshold, thus project impacts related to implementation of the applicable air quality plan, violation of any air quality standard or substantial contribution to an existing or projected air quality violation, and contribution to cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard would be significant and unavoidable.

AVION BURBANK PROJECT

Air Quality Appendices

A. Project Construction Emissions Worksheets

- Project Construction Assumptions
- Construction CalEEMod Output (Summer)
- Construction CalEEMod Output (Winter)
- Construction AQ Summary

B. Project Operational Emissions Worksheets

- Project Operational Assumptions
- Operational CalEEMod Output (Summer)
- Operational CalEEMod Output (Winter)
- Operational AQ Summary

C. Project Health Risk Assessment Worksheets

APPENDIX A

Project Construction Emissions Worksheets

- Project Construction Assumptions
- Construction CalEEMod Output (Summer)
- Construction CalEEMod Output (Winter)
- Construction AQ Summary

Avion Burbank Project
Air Quality and Greenhouse Gas Assessment

Table 1. CalEEMod Land Use Inputs

Land Use Type	CalEEMod Land Use Type	Lot Acreage [a]	Building Square Feet [a]	Unit Amount [a]	Size Metric
Existing Uses					
None/Vacant					
Project					
Industrial	Industrial/Industrial Park	23.30	1,014,887 sf	1,014.887	ksf
Retail	Retail/Regional Shopping Center	0.18	7,700.0 sf	7.700	ksf
High Turnover Restaurant	Recreational/High Turnover Restaurant	0.18	7,700.0	7.700	
Office	Commercial/General Office Building	3.27	142,250 sf	142.250	ksf
Hotel	Recreational/Hotel	1.45	101,230 sf	166	rooms
Parking	Parking/Parking Lot	20.71	902,050 sf	2,390	spaces
Roadway Extension/Widening [b]	Parking/Other Asphalt Surfaces	5.14	223,723 sf	5.14	acres
Landscape [c]	Recreational/City Park	7.338	319,646 sf	7.34	acres
Total		61.55	2,719,186 sf		

Notes:

a. Lot acreage and building square footage values may be rounded up to provide a conservative analysis.

b. For roadway, chose "Parking /Other Asphalt Surfaces" to account for VOC offgassing from new asphalt.

c. Used City park as surrogate for landscaping.

Sources: Overton Moore Properties, Site Plan & Parcel Map, June 2017; July 2016; ESA, Avion Project Initial Study, 2017; 2016 CALEEMOD defaults.

43560 sq.ft/acre

Table 2. Construction Schedule for CalEEMod Inputs

CalEEMod Construction Phase	CalEEMOD Phase Type	Start Date	End Date	No. Work Days [b]
Phase 1 (Office, Industrial, and Retail)	**Duration[a]**	**4/1/2018**	**10/1/2019**	**470**
Demolition (Remove pavement)	Demolition	2018/04/01	2018/04/20	17
Grading [a]	Grading	2018/04/05	2018/06/02	51
Drainage/Utilities/Trenching	Building Construction	2018/05/07	2018/06/05	26
Foundation	Building Construction	6/11/2018	11/15/2018	136
Building Construction	Building Construction	11/30/2018	8/7/2019	215
Paving	Paving	10/23/2018	8/3/2019	245
Landscaping	Building Construction	9/3/2019	9/27/2019	22
Architectural Coating	Architectural Coating	6/1/2019	10/1/2019	105
Phase 2 (Hotel)	**Duration**	**9/1/2018**	**8/31/2020**	**626**
Drainage/Utilities/Trenching	Building Construction	9/1/2018	9/27/2018	23
Foundation	Building Construction	10/1/2018	1/10/2019	88
Building Construction	Building Construction	1/21/2019	5/15/2020	413
Paving	Paving	7/1/2020	8/26/2020	49
Landscaping	Building Construction	8/1/2020	8/28/2020	24
Architectural Coating	Architectural Coating	6/1/2020	8/28/2020	77

Notes:

a. Grading phase will begin in April 2018 and last 8 weeks as specified by OMP.

b. Construction hours are Monday-Friday: 7AM-7PM, Saturdays: 8AM-5PM.

c. Adjusted construction days because per OMP, half of the weeks will included Saturdays and half will not have Saturdays.

Sources: OMP, AVION Burbank Schedule - 072617.pdf and similar projects.

Avion Burbank Project Schedule		2018												2019												2020											
	Phase	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Phase 1	Demolition																																				
	Grading																																				
	Drainage/Utilities/Trenching																																				
	Foundation																																				
	Building Construction																																				
	Paving																																				
	Landscaping																																				
	Architectural Coating																																				
Phase 2	Drainage/Utilities/Trenching																																				
	Foundation																																				
	Building Construction																																				
	Paving																																				
	Landscaping																																				
	Architectural Coating																																				

Avion Burbank Project

Air Quality and Greenhouse Gas Assessment

Table 3: Off-Road Construction Equipment for CALEEMOD Inputs

PHASE 1 (Industrial, Office, and Retail)				
Construction Phase	**Construction Equipment**	**No. of Equip.**	**Hours per Day Per Equip.**	**Hours per Week Per Equip.**
Demolition	Tractors/Loaders/Backhoes	2	10	60
	Ruber Tired Dozer	2	10	60
	Sweepers/Scrubbers	2	6	36
	Off-highway Trucks (Water/haul Trucks)	3	6	36
Grading	Graders	2	10	60
	Tractors/Loaders/Backhoes	2	10	60
	Scrapers	6	10	60
	Rubber Tired Dozers	2	10	60
	Blades	2	10	60
	Off-highway Trucks (Water/haul Trucks)	10	6	36
Drainage/Utilities/Trenching	Cranes	1	10	60
	Excavators	2	10	60
	Off-highway Trucks	1	6	36
	Tractors/Loaders/Backhoes	2	10	60
Foundation	Rough Terrain Forklifts	3	10	60
	Excavators	3	10	60
	Aerial Lifts	3	10	60
	Bore/Drill Rigs	3	10	60
	Pumps	3	10	60
	Tractors/Loaders/Backhoes	3	10	60
Building Construction	Crane	2	10	60
	Off-highway Trucks	2	6	36
	Pavers	0	10	60
	Paving Equipment	0	10	60
	Concrete Boom Pump	2	10	60
	Tractors/Loaders/ Backhoes	3	10	60
	Forklifts	2	10	60
	Welders	2	10	60
	Generator Sets	4	10	60
Paving	Pavers	2	10	60
	Paving Equipment	5	10	60
Landscaping	Tractors/Loaders/ Backhoes	3	10	60
	Skid Steer Loader	3	10	60
	Sweepers	2	6	36
Architectural Coating	Air Compressors	3	10	60
	Aerial Lifts	6	10	60

Table 3: Off-Road Construction Equipment for CALEEMOD Inputs

Phase 2 (Hotel)				
Construction Phase	**Construction Equipment**	**No. of Equip.**	**Hours per Day Per Equip.**	**Hours per Week Per Equip.**
Drainage/Utilities/Trenching	Trencher	1	10	60
	Excavators	1	10	60
	Off-highway Trucks	1	6	36
	Tractors/Loaders/Backhoes	2	10	60
Foundation	Crane	1	10	60
	Rough Terrain Forklifts	2	10	60
	Excavators	2	10	60
	Aerial Lifts	2	10	60
	Bore/Drill Rigs	2	10	60
	Pumps	3	10	60
	Tractors/Loaders/Backhoes	2	10	60
Building Construction	Cranes	1	10	60
	Off-highway Trucks	1	6	36
	Air Compressors	3	10	60
	Concrete Boom Pump	1	10	60
	Tractors/Loaders/ Backhoes	1	10	60
	Forklifts	2	10	60
	Welders	3	10	60
	Generator Sets	2	10	60
Paving	Pavers	1	10	60
	Rollers	2	10	60
	Paving Equipment	1	10	60
	Surfacing Equipment	1	10	60
Landscaping	Tractors/Loaders/ Backhoes	1	10	60
	Skid Steer Loader	1	10	60
	Sweepers	1	10	60
Architectural Coating	Air Compressors	3	10	60
	Aerial Lifts	3	10	60

a. Construction Equipment Tier Rating subject to change if mitigation is needed.

Avion Burbank Project
Air Quality and Greenhouse Gas Assessment

Table 5: Construction Vehicle Trip Counts for CALEEMOD Inputs

CalEEMod Construction Phase	CalEEMOD Phase Type	Start Date	End Date	No. Work Days [b]	# of Worker One-way Trips per day [c,d,e]	Daily Vendor One-way Trucks [f,g]	One-way Haul Trips [h]
Phase 1 (Office, Industrial, and Retail)	**Durationa**	**4/1/2018**	**10/1/2019**				
Demolition (Remove pavement)	Demolition	2018/04/01	2018/04/20	17	23	6	0
Grading [a]	Grading	2018/04/05	2018/06/02	51	60	6	0
Drainage/Utilities/Trenching	Building Construction	2018/05/07	2018/06/05	26	15	6	-
Foundation	Building Construction	6/11/2018	11/15/2018	136	45	72	-
Building Construction	Building Construction	11/30/2018	8/7/2019	215	572	6	-
Paving	Paving	10/23/2018	8/3/2019	245	18	14	-
Landscaping	Building Construction	9/3/2019	9/27/2019	22	20	6	-
Architectural Coating	Architectural Coating	6/1/2019	10/1/2019	105	114	6	-
Phase 2 (Hotel)	**Duration**	**9/1/2018**	**8/31/2020**				
Drainage/Utilities/Trenching	Building Construction	9/1/2018	9/27/2018	23	13	6	-
Foundation	Building Construction	10/1/2018	1/10/2019	88	35	18	-
Building Construction	Building Construction	1/21/2019	5/15/2020	413	200	6	-
Paving	Paving	7/1/2020	8/26/2020	49	13	6.56	-
Landscaping	Building Construction	8/1/2020	8/28/2020	24	6	6	-
Architectural Coating	Architectural Coating	6/1/2020	8/28/2020	77	40	6	-

Notes:

a. Grading phase will begin in April 2018 and last 8 weeks as specified by OMP.

b. Construction hours are Monday-Friday: 7AM-7PM, Saturdays: 8AM-5PM.

c. CalEEMod quantifies the number of construction workers by multiplying 1.25 times the number of pieces of equipment for all phases (except Building Construction and Architectural Coating).

d. OMP provided the range of construction worker numbers below, this analyses assumes building construction of the three land types will be concurrent and uses the sum of the average worker counts.

Land Type	No. of Workers	Average
Industrial Building	50-150	100
Office Building	75-170	123
Retail Building	25-100	63
	Total	**286**

e. For the Architectural Coating phase, the number of workers is approximately 20% of the number of workers needed during the Building Construction phase.

f. For Concrete Pour phase, see Concrete Estimates in Table 2 for details.

g. Assumes 3 trucks per day for delivery trucks and dumpster for each construction phase.

h. Assumes no haul trucks for debris remvoval, everything will be balanced or recycled onsite. Offhighway trucks are assumed to move the earth around.

Avion Burbank Project
Air Quality and Greenhouse Gas Assessment

Demolition and Excavation

Demolition Schedule		
Start Date	2018/04/01	
End Date	2018/04/20	
Work Days	17	
Demolition Areas		
Paved Area to be removed	43.42	*acres*
Paved Area to be removed	1,892	*KSF*
Demolition Volume and Haul Truck Trips		
Total Sidewalk (KSF)	1,892	
Pavement Thickness (ft) [1]	0.5	
Pavement Volume (ft^3)	945,782	
Pavement Volume (CY)	35,029	
Debris density (lbs/CY) [b]	2,400	
Pavement Debris (lbs)	84,069,511	
Pavement Debris (tons)	**42,034.76**	
Truck Size (CY)	16	
Total one-way Truck Trips	4,379	*(rounded, estimated)*
Daily Truck Trips (round-way onsite)	258	*trips/day*
Trip length (mile/trip)	0.25	
VMT per day	65	
offhighway truck speed (mph)	7	
hours/day	9	
No. Offhighway trucks assumed	2	*work 6 hrs/day each truck*

Excavation&Grading		
Total work days	51	
Soil to be excavated (CY) [2]	**261,000**	
Truck size (CY)	16	
Total one-way Truck Trips	32,625	
Material balancing one-way trips	37,004	
Total one-way trips	69,629.00	
Daily one-way trips	1,365.27	
Trip length (mile/trip)	0.25	
VMT per day	341	
offhighway truck speed (mph)	7	
hours/day	48	
No. Offhighway trucks assumed	8	*work 6 hrs/day each truck*

Notes:

1 Assume pavement is 6 inches thick. http://www.wef-pe.com/downloads/ACI-330_Design_Guide_for_Concrete_Parking_Lots%5B1%5D.pdf

b. 2400 lbs/CY Construction Debris, Asphalt/Concrete, Loose. From http://www.calrecycle.ca.gov/swfacilities/cdi/tools/Calculations.htm, Accessed July 21, 2017

2 Soil excavation volume was provided by OMP through data request response on 03/13/17.

Avion Burbank Project

Air Quality and Greenhouse Gas Assessment

Concrete Truck Trips During Construction

	Total Cubic Yard [1]	Truck Capacity [2]	Total Truck No.	Working days	Daily Truck No.
Phase I - Building Foundation	45,174	10	4,517	136	33
Phase II - Building Foundation	5,192	10	519	88	6
Phase I - Paving	9,532	10	953	245	4
Phase II - Paving	136	10	14	49	0.3

Notes:

1. Data provided by Michael of OMP on 08/10/2017. per follow-up on 08/22/17, parking is included in the trucking/side walk areas.

2. https://www.reference.com/home-garden/many-cubic-yards-concrete-truck-hold-f16ec3f128dc18d2

Avion Burbank Project
Air Quality and Greenhouse Gas Assessment

Construction Equipment and California Emissions Estimator Model (CalEEMod) Inputs

Architectural Coating Area Calculations

CalEEMod assumes the total surface for architectural coating equals:		
Residential Coating Area	2.7	times the floor square footage
	75%	interior
	25%	exterior
Nonresidential Coating Area	2	times the square footage
	75%	interior
	25%	exterior
Parking Lot Coating Area	5%	of the square footage
	0%	exterior for surface lot

Source: SCAQMD, CEQA Air Quality Handbook, (1993) A9-124.

Non-Residential Land Uses			
Land Use	**Area (sf)**	**Interior (sf)**	**Exterior (sf)**
phase 1-building	1,172,537	1,758,806	586,269
phase 2-building	101230	151,845	50,615.00
phase 1-parking	1,071,133	50,343.25	-
phase 2-parking	54,640	2,568.08	-
Phase 1 - nonresidential total		1,809,149	586,269
Phase 2 - nonresidential total		**154,413**	**50,615**

Burbank Avion Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	142.25	1000sqft	3.27	142,250.00	0
General Light Industry	1,014.89	1000sqft	23.30	1,014,887.00	0
Other Asphalt Surfaces	5.14	Acre	5.14	223,723.00	0
Parking Lot	2,390.00	Space	20.71	901,975.00	0
City Park	7.34	Acre	7.34	319,646.00	0
High Turnover (Sit Down Restaurant)	7.70	1000sqft	0.18	7,700.00	0
Hotel	166.00	Room	1.45	101,230.00	0
Regional Shopping Center	7.70	1000sqft	0.18	7,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2020
Utility Company	Burbank Water & Power				
CO2 Intensity (lb/MWhr)	1096.12	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - See construction assumptions

On-road Fugitive Dust -

Demolition -

Grading - see construction assumptions - concrete debris and excavated soils will be balanced onsite. To capture all emissions using CALEEMOD, assume the material imported is the combination of the two

Architectural Coating - Comply with SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - see construction assumptions

Area Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	636885	636923
tblAreaCoating	Area_Nonresidential_Interior	1910655	1910768
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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tblFleetMix	FleetMixLandUseSubType	City Park	Hotel
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tblGrading	MaterialExported	0.00	261,000.00
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tblLandUse	BuildingSpaceSquareFeet	956,000.00	901,975.00
tblLandUse	BuildingSpaceSquareFeet	241,032.00	101,230.00
tblLandUse	GreenSpaceSquareFeet	319,730.40	319,646.00
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tblLandUse	LotAcreage	5.53	1.45
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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	26.8632	304.9692	158.0792	0.3511	71.4867	12.6519	84.1386	16.8803	11.6401	28.5204	0.0000	35,341.7451	35,341.7451	10.6415	0.0000	35,607.7828
2019	76.7438	162.5136	179.5074	0.3594	10.3093	8.6841	18.9935	2.7387	8.3501	11.0888	0.0000	34,979.2520	34,979.2520	5.5766	0.0000	35,109.1272
2020	11.3744	46.0145	49.3578	0.0984	2.2739	2.5090	4.7829	0.6039	2.4388	3.0427	0.0000	9,376.5000	9,376.5000	1.4734	0.0000	9,406.7999
Maximum	**76.7438**	**304.9692**	**179.5074**	**0.3594**	**71.4867**	**12.6519**	**84.1386**	**16.8803**	**11.6401**	**28.5204**	**0.0000**	**35,341.7451**	**35,341.7451**	**10.6415**	**0.0000**	**35,607.7828**

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	7.5351	30.4838	177.4172	0.3511	28.4926	0.7203	29.0626	6.7469	0.7145	7.3158	0.0000	35,341.7451	35,341.7451	10.6415	0.0000	35,607.7828
2019	63.8983	34.4163	195.1013	0.3594	10.3093	1.0683	11.3777	2.7387	1.0610	3.7998	0.0000	34,979.2520	34,979.2520	5.5766	0.0000	35,109.1271
2020	8.7671	11.0807	52.8311	0.0984	2.2739	0.4393	2.7132	0.6039	0.4378	1.0418	0.0000	9,376.5000	9,376.5000	1.4734	0.0000	9,406.7999
Maximum	**63.8983**	**34.4163**	**195.1013**	**0.3594**	**28.4926**	**1.0683**	**29.0626**	**6.7469**	**1.0610**	**7.3158**	**0.0000**	**35,341.7451**	**35,341.7451**	**10.6415**	**0.0000**	**35,607.7828**

	ROG	NOx	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	**30.25**	**85.20**	**-9.93**	**0.00**	**51.14**	**90.66**	**60.01**	**50.11**	**90.13**	**71.50**	**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 (Remove pavement)-Phase 1	Demolition	4/1/2018	4/20/2018	6	17	
2	Grading-Phase 1	Grading	4/5/2018	6/2/2018	6	51	
3	Drainage/Utilities/Trenching-Phase 1	Building Construction	5/7/2018	6/5/2018	6	26	
4	Foundation-Phase 1	Building Construction	6/11/2018	11/15/2018	6	136	
5	Drainage/Utilities/Trenching-Phase 2	Building Construction	9/1/2018	9/27/2018	6	23	
6	Foundation-Phase 2	Building Construction	10/1/2018	1/10/2019	6	88	
7	Paving-Phase 1	Paving	10/23/2018	8/3/2019	6	245	
8	Building Construction-Phase 1	Building Construction	11/30/2018	8/7/2019	6	215	
9	Building Construction-Phase 2	Building Construction	1/21/2019	5/15/2020	6	413	
10	Architectural Coating-Phase 1	Architectural Coating	6/1/2019	10/1/2019	6	105	
11	Landscaping-Phase 1	Building Construction	9/3/2019	9/27/2019	6	22	
12	Architectural Coating-Phase 2	Architectural Coating	6/1/2020	8/28/2020	6	77	
13	Paving-Phase 2	Paving	7/1/2020	8/26/2020	6	49	
14	Landscaping-Phase 2	Building Construction	8/1/2020	8/28/2020	6	24	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 25.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,758,806; Non-Residential Outdoor: 586,269; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition (Remove pavement)-Phase 1	Off-Highway Trucks	3	6.00	402	0.38
Demolition (Remove pavement)-Phase 1	Rubber Tired Dozers	2	10.00	247	0.40
Demolition (Remove pavement)-Phase 1	Sweepers/Scrubbers	2	6.00	64	0.46
Demolition (Remove pavement)-Phase 1	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Grading-Phase 1	Graders	4	10.00	187	0.41

Grading-Phase 1	Off-Highway Trucks	10	6.00	402	0.38
Grading-Phase 1	Rubber Tired Dozers	2	10.00	247	0.40
Grading-Phase 1	Scrapers	6	10.00	367	0.48
Grading-Phase 1	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Drainage/Utilities/Trenching-Phase 1	Cranes	1	10.00	231	0.29
Drainage/Utilities/Trenching-Phase 1	Excavators	2	10.00	158	0.38
Drainage/Utilities/Trenching-Phase 1	Off-Highway Trucks	1	6.00	402	0.38
Drainage/Utilities/Trenching-Phase 1	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Foundation-Phase 1	Aerial Lifts	3	10.00	63	0.31
Foundation-Phase 1	Bore/Drill Rigs	3	10.00	221	0.50
Foundation-Phase 1	Excavators	3	10.00	158	0.38
Foundation-Phase 1	Pumps	3	10.00	84	0.74
Foundation-Phase 1	Rough Terrain Forklifts	3	10.00	100	0.40
Foundation-Phase 1	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Drainage/Utilities/Trenching-Phase 2	Excavators	1	10.00	158	0.38
Drainage/Utilities/Trenching-Phase 2	Off-Highway Trucks	1	6.00	402	0.38
Drainage/Utilities/Trenching-Phase 2	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Drainage/Utilities/Trenching-Phase 2	Trenchers	1	10.00	78	0.50
Foundation-Phase 2	Aerial Lifts	2	10.00	63	0.31
Foundation-Phase 2	Bore/Drill Rigs	2	10.00	221	0.50
Foundation-Phase 2	Cranes	1	10.00	231	0.29
Foundation-Phase 2	Excavators	2	10.00	158	0.38
Foundation-Phase 2	Pumps	3	10.00	84	0.74
Foundation-Phase 2	Rough Terrain Forklifts	2	10.00	100	0.40
Foundation-Phase 2	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Paving-Phase 1	Pavers	2	10.00	130	0.42
Paving-Phase 1	Paving Equipment	5	10.00	132	0.36
Building Construction-Phase 1	Cranes	2	10.00	231	0.29
Building Construction-Phase 1	Forklifts	2	10.00	89	0.20
Building Construction-Phase 1	Generator Sets	4	10.00	84	0.74

Building Construction-Phase 1	Off-Highway Trucks	2	6.00	402	0.38
Building Construction-Phase 1	Pumps	2	10.00	84	0.74
Building Construction-Phase 1	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Building Construction-Phase 1	Welders	2	10.00	46	0.45
Building Construction-Phase 2	Air Compressors	3	10.00	78	0.48
Building Construction-Phase 2	Cranes	1	10.00	231	0.29
Building Construction-Phase 2	Forklifts	2	10.00	89	0.20
Building Construction-Phase 2	Generator Sets	2	10.00	84	0.74
Building Construction-Phase 2	Off-Highway Trucks	1	6.00	402	0.38
Building Construction-Phase 2	Pumps	1	10.00	84	0.74
Building Construction-Phase 2	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Building Construction-Phase 2	Welders	3	10.00	46	0.45
Architectural Coating-Phase 1	Aerial Lifts	6	10.00	63	0.31
Architectural Coating-Phase 1	Air Compressors	3	10.00	78	0.48
Landscaping-Phase 1	Skid Steer Loaders	3	10.00	65	0.37
Landscaping-Phase 1	Sweepers/Scrubbers	2	6.00	64	0.46
Landscaping-Phase 1	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Architectural Coating-Phase 2	Aerial Lifts	3	10.00	63	0.31
Architectural Coating-Phase 2	Air Compressors	3	10.00	78	0.48
Paving-Phase 2	Pavers	1	10.00	130	0.42
Paving-Phase 2	Paving Equipment	1	10.00	132	0.36
Paving-Phase 2	Rollers	2	10.00	80	0.38
Paving-Phase 2	Surfacing Equipment	1	10.00	263	0.30
Landscaping-Phase 2	Skid Steer Loaders	1	10.00	65	0.37
Landscaping-Phase 2	Sweepers/Scrubbers	1	10.00	64	0.46
Landscaping-Phase 2	Tractors/Loaders/Backhoes	1	10.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class

Demolition (Remove pavement)-Phase 1	9	23.00	6.00	0.00	14.70	6.90	0.25	LD_Mix	HDT_Mix	HHDT
Grading-Phase 1	24	60.00	6.00	0.00	14.70	6.90	0.25	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching-Phase 1	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation-Phase 1	18	45.00	72.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching-Phase 2	5	13.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation-Phase 2	14	35.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase 1	7	18.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase 1	17	572.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase 2	14	200.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase 1	9	114.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping-Phase 1	8	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase 2	6	40.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase 2	5	13.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping-Phase 2	3	6.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition (Remove pavement)-Phase 1 - 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					52.9119	0.0000	52.9119	8.0113	0.0000	8.0113			0.0000			0.0000

Off-Road	5.7874	60.7056	29.2600	0.0627		3.0095	3.0095		2.7687	2.7687		6,307.6344	6,307.6344	1.9637		6,356.7257
Total	**5.7874**	**60.7056**	**29.2600**	**0.0627**	**52.9119**	**3.0095**	**55.9214**	**8.0113**	**2.7687**	**10.7800**		**6,307.6344**	**6,307.6344**	**1.9637**		**6,356.7257**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.1229	0.0886	1.1507	2.8200e-003	0.2571	2.0600e-003	0.2592	0.0682	1.9000e-003	0.0701		280.3056	280.3056	9.5800e-003		280.5451
Total	**0.1487**	**0.8176**	**1.3357**	**4.3800e-003**	**0.2955**	**7.3900e-003**	**0.3029**	**0.0792**	**7.0000e-003**	**0.0862**		**446.5111**	**446.5111**	**0.0211**		**447.0376**

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					20.6357	0.0000	20.6357	3.1244	0.0000	3.1244			0.0000			0.0000
Off-Road	0.8135	5.2543	31.6573	0.0627		0.1022	0.1022		0.1022	0.1022	0.0000	6,307.6344	6,307.6344	1.9637		6,356.7257
Total	**0.8135**	**5.2543**	**31.6573**	**0.0627**	**20.6357**	**0.1022**	**20.7379**	**3.1244**	**0.1022**	**3.2267**	**0.0000**	**6,307.6344**	**6,307.6344**	**1.9637**		**6,356.7257**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.1229	0.0886	1.1507	2.8200e-003	0.2571	2.0600e-003	0.2592	0.0682	1.9000e-003	0.0701		280.3056	280.3056	9.5800e-003		280.5451
Total	**0.1487**	**0.8176**	**1.3357**	**4.3800e-003**	**0.2955**	**7.3900e-003**	**0.3029**	**0.0792**	**7.0000e-003**	**0.0862**		**446.5111**	**446.5111**	**0.0211**		**447.0376**

3.3 Grading-Phase 1 - 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					17.5703	0.0000	17.5703	8.6008	0.0000	8.6008			0.0000			0.0000
Off-Road	20.5808	242.4860	123.7693	0.2751		9.6243	9.6243		8.8544	8.8544		27,690.16 20	27,690.162 0	8.6203		27,905.67 01
Total	**20.5808**	**242.4860**	**123.7693**	**0.2751**	**17.5703**	**9.6243**	**27.1946**	**8.6008**	**8.8544**	**17.4552**		**27,690.16 20**	**27,690.162 0**	**8.6203**		**27,905.67 01**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.3205	0.2311	3.0018	7.3500e-003	0.6707	5.3800e-003	0.6760	0.1779	4.9600e-003	0.1828		731.2321	731.2321	0.0250		731.8569
Total	**0.3464**	**0.9601**	**3.1868**	**8.9100e-003**	**0.7091**	**0.0107**	**0.7198**	**0.1889**	**0.0101**	**0.1990**		**897.4376**	**897.4376**	**0.0365**		**898.3494**

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					6.8524	0.0000	6.8524	3.3543	0.0000	3.3543			0.0000			0.0000
Off-Road	3.3725	14.6142	126.0327	0.2751		0.4497	0.4497		0.4497	0.4497	0.0000	27,690.1620	27,690.1620	8.6203		27,905.6701
Total	**3.3725**	**14.6142**	**126.0327**	**0.2751**	**6.8524**	**0.4497**	**7.3021**	**3.3543**	**0.4497**	**3.8040**	**0.0000**	**27,690.1620**	**27,690.1620**	**8.6203**		**27,905.6701**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.3205	0.2311	3.0018	7.3500e-003	0.6707	5.3800e-003	0.6760	0.1779	4.9600e-003	0.1828		731.2321	731.2321	0.0250		731.8569
Total	**0.3464**	**0.9601**	**3.1868**	**8.9100e-003**	**0.7091**	**0.0107**	**0.7198**	**0.1889**	**0.0101**	**0.1990**		**897.4376**	**897.4376**	**0.0365**		**898.3494**

3.4 Drainage/Utilities/Trenching-Phase 1 - 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	2.6815	29.0838	20.3345	0.0378		1.4380	1.4380		1.3230	1.3230		3,803.8620	3,803.8620	1.1842		3,833.4669
Total	**2.6815**	**29.0838**	**20.3345**	**0.0378**		**1.4380**	**1.4380**		**1.3230**	**1.3230**		**3,803.8620**	**3,803.8620**	**1.1842**		**3,833.4669**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.0801	0.0578	0.7505	1.8400e-003	0.1677	1.3400e-003	0.1690	0.0445	1.2400e-003	0.0457		182.8080	182.8080	6.2500e-003		182.9642
Total	**0.1060**	**0.7867**	**0.9355**	**3.4000e-003**	**0.2061**	**6.6700e-003**	**0.2127**	**0.0555**	**6.3400e-003**	**0.0619**		**349.0135**	**349.0135**	**0.0177**		**349.4567**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4636	2.0091	23.3448	0.0378		0.0618	0.0618		0.0618	0.0618	0.0000	3,803.8620	3,803.8620	1.1842		3,833.4669
Total	**0.4636**	**2.0091**	**23.3448**	**0.0378**		**0.0618**	**0.0618**		**0.0618**	**0.0618**	**0.0000**	**3,803.8620**	**3,803.8620**	**1.1842**		**3,833.4669**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.0801	0.0578	0.7505	1.8400e-003	0.1677	1.3400e-003	0.1690	0.0445	1.2400e-003	0.0457		182.8080	182.8080	6.2500e-003		182.9642
Total	**0.1060**	**0.7867**	**0.9355**	**3.4000e-003**	**0.2061**	**6.6700e-003**	**0.2127**	**0.0555**	**6.3400e-003**	**0.0619**		**349.0135**	**349.0135**	**0.0177**		**349.4567**

3.5 Foundation-Phase 1 - 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	5.9509	63.0538	55.9011	0.1101		3.1758	3.1758		3.0046	3.0046		10,932.1197	10,932.1197	2.8528		11,003.4385

Total	**5.9509**	**63.0538**	**55.9011**	**0.1101**		**3.1758**	**3.1758**		**3.0046**	**3.0046**		**10,932.1197**	**10,932.1197**	**2.8528**		**11,003.4385**

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	0.3097	8.7475	2.2203	0.0187	0.4607	0.0639	0.5247	0.1326	0.0612	0.1938		1,994.4662	1,994.4662	0.1378		1,997.9102
Worker	0.2404	0.1733	2.2514	5.5100e-003	0.5030	4.0300e-003	0.5070	0.1334	3.7200e-003	0.1371		548.4240	548.4240	0.0187		548.8926
Total	**0.5501**	**8.9208**	**4.4717**	**0.0242**	**0.9637**	**0.0680**	**1.0317**	**0.2660**	**0.0649**	**0.3309**		**2,542.8903**	**2,542.8903**	**0.1565**		**2,546.8028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3796	8.8458	69.3328	0.1101		0.1736	0.1736		0.1736	0.1736	0.0000	10,932.1197	10,932.1197	2.8528		11,003.4385
Total	**1.3796**	**8.8458**	**69.3328**	**0.1101**		**0.1736**	**0.1736**		**0.1736**	**0.1736**	**0.0000**	**10,932.1197**	**10,932.1197**	**2.8528**		**11,003.4385**

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	0.3097	8.7475	2.2203	0.0187	0.4607	0.0639	0.5247	0.1326	0.0612	0.1938		1,994.4662	1,994.4662	0.1378		1,997.9102
Worker	0.2404	0.1733	2.2514	5.5100e-003	0.5030	4.0300e-003	0.5070	0.1334	3.7200e-003	0.1371		548.4240	548.4240	0.0187		548.8926
Total	**0.5501**	**8.9208**	**4.4717**	**0.0242**	**0.9637**	**0.0680**	**1.0317**	**0.2660**	**0.0649**	**0.3309**		**2,542.8903**	**2,542.8903**	**0.1565**		**2,546.8028**

3.6 Drainage/Utilities/Trenching-Phase 2 - 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	2.1725	21.7739	16.4020	0.0284		1.2682	1.2682		1.1668	1.1668		2,853.1308	2,853.1308	0.8882		2,875.3363
Total	**2.1725**	**21.7739**	**16.4020**	**0.0284**		**1.2682**	**1.2682**		**1.1668**	**1.1668**		**2,853.1308**	**2,853.1308**	**0.8882**		**2,875.3363**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.0695	0.0501	0.6504	1.5900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		158.4336	158.4336	5.4100e-003		158.5690
Total	**0.0953**	**0.7790**	**0.8354**	**3.1500e-003**	**0.1837**	**6.5000e-003**	**0.1902**	**0.0496**	**6.1700e-003**	**0.0558**		**324.6391**	**324.6391**	**0.0169**		**325.0615**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3472	1.5045	18.3794	0.0284		0.0463	0.0463		0.0463	0.0463	0.0000	2,853.1308	2,853.1308	0.8882		2,875.3363
Total	**0.3472**	**1.5045**	**18.3794**	**0.0284**		**0.0463**	**0.0463**		**0.0463**	**0.0463**	**0.0000**	**2,853.1308**	**2,853.1308**	**0.8882**		**2,875.3363**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	0.0695	0.0501	0.6504	1.5900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		158.4336	158.4336	5.4100e-003		158.5690
Total	**0.0953**	**0.7790**	**0.8354**	**3.1500e-003**	**0.1837**	**6.5000e-003**	**0.1902**	**0.0496**	**6.1700e-003**	**0.0558**		**324.6391**	**324.6391**	**0.0169**		**325.0615**

3.7 Foundation-Phase 2 - 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	5.3453	55.7803	45.1763	0.0889		2.8316	2.8316		2.6879	2.6879		8,792.6204	8,792.6204	2.1867		8,847.2879
Total	**5.3453**	**55.7803**	**45.1763**	**0.0889**		**2.8316**	**2.8316**		**2.6879**	**2.6879**		**8,792.6204**	**8,792.6204**	**2.1867**		**8,847.2879**

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	0.0774	2.1869	0.5551	4.6700e-003	0.1152	0.0160	0.1312	0.0332	0.0153	0.0485		498.6166	498.6166	0.0344		499.4775
Worker	0.1870	0.1348	1.7511	4.2900e-003	0.3912	3.1400e-003	0.3944	0.1038	2.8900e-003	0.1066		426.5520	426.5520	0.0146		426.9165
Total	**0.2644**	**2.3217**	**2.3061**	**8.9600e-003**	**0.5064**	**0.0191**	**0.5255**	**0.1369**	**0.0182**	**0.1551**		**925.1686**	**925.1686**	**0.0490**		**926.3940**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0906	6.6375	54.5414	0.0889		0.1385	0.1385		0.1385	0.1385	0.0000	8,792.6204	8,792.6204	2.1867		8,847.2878
Total	**1.0906**	**6.6375**	**54.5414**	**0.0889**		**0.1385**	**0.1385**		**0.1385**	**0.1385**	**0.0000**	**8,792.6204**	**8,792.6204**	**2.1867**		**8,847.2878**

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	0.0774	2.1869	0.5551	4.6700e-003	0.1152	0.0160	0.1312	0.0332	0.0153	0.0485		498.6166	498.6166	0.0344		499.4775
Worker	0.1870	0.1348	1.7511	4.2900e-003	0.3912	3.1400e-003	0.3944	0.1038	2.8900e-003	0.1066		426.5520	426.5520	0.0146		426.9165
Total	**0.2644**	**2.3217**	**2.3061**	**8.9600e-003**	**0.5064**	**0.0191**	**0.5255**	**0.1369**	**0.0182**	**0.1551**		**925.1686**	**925.1686**	**0.0490**		**926.3940**

3.7 Foundation-Phase 2 - 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	4.7840	49.9900	44.6068	0.0888		2.4335	2.4335		2.3101	2.3101		8,683.2091	8,683.2091	2.1643		8,737.3165

Total	**4.7840**	**49.9900**	**44.6068**	**0.0888**		**2.4335**	**2.4335**		**2.3101**	**2.3101**		**8,683.2091**	**8,683.2091**	**2.1643**		**8,737.3165**

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	0.0702	2.0663	0.5095	4.6300e-003	0.1152	0.0137	0.1289	0.0332	0.0131	0.0463		494.1219	494.1219	0.0333		494.9531
Worker	0.1699	0.1189	1.5678	4.1500e-003	0.3912	3.0600e-003	0.3943	0.1038	2.8200e-003	0.1066		413.1265	413.1265	0.0130		413.4502
Total	**0.2401**	**2.1852**	**2.0773**	**8.7800e-003**	**0.5064**	**0.0168**	**0.5232**	**0.1369**	**0.0159**	**0.1528**		**907.2484**	**907.2484**	**0.0462**		**908.4033**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0906	6.6375	54.5414	0.0888		0.1385	0.1385		0.1385	0.1385	0.0000	8,683.2091	8,683.2091	2.1643		8,737.3165
Total	**1.0906**	**6.6375**	**54.5414**	**0.0888**		**0.1385**	**0.1385**		**0.1385**	**0.1385**	**0.0000**	**8,683.2091**	**8,683.2091**	**2.1643**		**8,737.3165**

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	0.0702	2.0663	0.5095	4.6300e-003	0.1152	0.0137	0.1289	0.0332	0.0131	0.0463		494.1219	494.1219	0.0333		494.9531
Worker	0.1699	0.1189	1.5678	4.1500e-003	0.3912	3.0600e-003	0.3943	0.1038	2.8200e-003	0.1066		413.1265	413.1265	0.0130		413.4502
Total	**0.2401**	**2.1852**	**2.0773**	**8.7800e-003**	**0.5064**	**0.0168**	**0.5232**	**0.1369**	**0.0159**	**0.1528**		**907.2484**	**907.2484**	**0.0462**		**908.4033**

3.8 Paving-Phase 1 - 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	2.3015	25.6371	23.1674	0.0372		1.2543	1.2543		1.1540	1.1540		3,745.3642	3,745.3642	1.1660		3,774.5138
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5779**	**25.6371**	**23.1674**	**0.0372**		**1.2543**	**1.2543**		**1.1540**	**1.1540**		**3,745.3642**	**3,745.3642**	**1.1660**		**3,774.5138**

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	0.0602	1.7009	0.4317	3.6300e-003	0.0896	0.0124	0.1020	0.0258	0.0119	0.0377		387.8129	387.8129	0.0268		388.4825
Worker	0.0962	0.0693	0.9006	2.2000e-003	0.2012	1.6100e-003	0.2028	0.0534	1.4900e-003	0.0549		219.3696	219.3696	7.5000e-003		219.5571
Total	**0.1564**	**1.7702**	**1.3323**	**5.8300e-003**	**0.2908**	**0.0140**	**0.3048**	**0.0792**	**0.0134**	**0.0925**		**607.1825**	**607.1825**	**0.0343**		**608.0396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4587	1.9879	28.2888	0.0372		0.0612	0.0612		0.0612	0.0612	0.0000	3,745.3642	3,745.3642	1.1660		3,774.5138
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7352**	**1.9879**	**28.2888**	**0.0372**		**0.0612**	**0.0612**		**0.0612**	**0.0612**	**0.0000**	**3,745.3642**	**3,745.3642**	**1.1660**		**3,774.5138**

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	0.0602	1.7009	0.4317	3.6300e-003	0.0896	0.0124	0.1020	0.0258	0.0119	0.0377		387.8129	387.8129	0.0268		388.4825
Worker	0.0962	0.0693	0.9006	2.2000e-003	0.2012	1.6100e-003	0.2028	0.0534	1.4900e-003	0.0549		219.3696	219.3696	7.5000e-003		219.5571
Total	**0.1564**	**1.7702**	**1.3323**	**5.8300e-003**	**0.2908**	**0.0140**	**0.3048**	**0.0792**	**0.0134**	**0.0925**		**607.1825**	**607.1825**	**0.0343**		**608.0396**

3.8 Paving-Phase 1 - 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	2.0502	21.9148	23.0259	0.0372		1.0822	1.0822		0.9957	0.9957		3,684.4910	3,684.4910	1.1657		3,713.6344
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3267**	**21.9148**	**23.0259**	**0.0372**		**1.0822**	**1.0822**		**0.9957**	**0.9957**		**3,684.4910**	**3,684.4910**	**1.1657**		**3,713.6344**

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	0.0546	1.6071	0.3963	3.6000e-003	0.0896	0.0107	0.1002	0.0258	0.0102	0.0360		384.3170	384.3170	0.0259		384.9635
Worker	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.1420**	**1.6683**	**1.2026**	**5.7300e-003**	**0.2908**	**0.0122**	**0.3030**	**0.0792**	**0.0116**	**0.0908**		**596.7821**	**596.7821**	**0.0325**		**597.5950**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4587	1.9879	28.2888	0.0372		0.0612	0.0612		0.0612	0.0612	0.0000	3,684.4910	3,684.4910	1.1657		3,713.6344
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7352**	**1.9879**	**28.2888**	**0.0372**		**0.0612**	**0.0612**		**0.0612**	**0.0612**	**0.0000**	**3,684.4910**	**3,684.4910**	**1.1657**		**3,713.6344**

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	0.0546	1.6071	0.3963	3.6000e-003	0.0896	0.0107	0.1002	0.0258	0.0102	0.0360		384.3170	384.3170	0.0259		384.9635
Worker	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.1420**	**1.6683**	**1.2026**	**5.7300e-003**	**0.2908**	**0.0122**	**0.3030**	**0.0792**	**0.0116**	**0.0908**		**596.7821**	**596.7821**	**0.0325**		**597.5950**

3.9 Building Construction-Phase 1 - 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	8.9907	78.5458	57.2947	0.1054		4.4912	4.4912		4.3147	4.3147		10,194.7513	10,194.7513	1.9997		10,244.7433

Total	**8.9907**	**78.5458**	**57.2947**	**0.1054**		**4.4912**	**4.4912**		**4.3147**	**4.3147**		**10,194.7513**	**10,194.7513**	**1.9997**		**10,244.7433**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	3.0558	2.2031	28.6174	0.0701	6.3936	0.0513	6.4449	1.6956	0.0473	1.7429		6,971.0790	6,971.0790	0.2383		6,977.0353
Total	**3.0817**	**2.9321**	**28.8024**	**0.0716**	**6.4320**	**0.0566**	**6.4886**	**1.7067**	**0.0524**	**1.7590**		**7,137.2845**	**7,137.2845**	**0.2497**		**7,143.5278**

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	2.2069	8.9826	62.1462	0.1054		0.4309	0.4309		0.4309	0.4309	0.0000	10,194.7513	10,194.7513	1.9997		10,244.7433
Total	**2.2069**	**8.9826**	**62.1462**	**0.1054**		**0.4309**	**0.4309**		**0.4309**	**0.4309**	**0.0000**	**10,194.7513**	**10,194.7513**	**1.9997**		**10,244.7433**

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	0.0258	0.7290	0.1850	1.5600e-003	0.0384	5.3300e-003	0.0437	0.0111	5.1000e-003	0.0162		166.2055	166.2055	0.0115		166.4925
Worker	3.0558	2.2031	28.6174	0.0701	6.3936	0.0513	6.4449	1.6956	0.0473	1.7429		6,971.0790	6,971.0790	0.2383		6,977.0353
Total	**3.0817**	**2.9321**	**28.8024**	**0.0716**	**6.4320**	**0.0566**	**6.4886**	**1.7067**	**0.0524**	**1.7590**		**7,137.2845**	**7,137.2845**	**0.2497**		**7,143.5278**

3.9 Building Construction-Phase 1 - 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	7.9566	70.6724	55.9346	0.1054		3.8637	3.8637		3.7124	3.7124		10,112.6603	10,112.6603	1.9452		10,161.2906
Total	**7.9566**	**70.6724**	**55.9346**	**0.1054**		**3.8637**	**3.8637**		**3.7124**	**3.7124**		**10,112.6603**	**10,112.6603**	**1.9452**		**10,161.2906**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	2.7770	1.9435	25.6217	0.0678	6.3936	0.0501	6.4437	1.6956	0.0461	1.7417		6,751.6676	6,751.6676	0.2116		6,756.9579
Total	**2.8004**	**2.6323**	**25.7916**	**0.0694**	**6.4320**	**0.0546**	**6.4866**	**1.7067**	**0.0505**	**1.7571**		**6,916.3749**	**6,916.3749**	**0.2227**		**6,921.9423**

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	2.0655	8.8384	62.0166	0.1054		0.3962	0.3962		0.3962	0.3962	0.0000	10,112.6603	10,112.6603	1.9452		10,161.2906
Total	**2.0655**	**8.8384**	**62.0166**	**0.1054**		**0.3962**	**0.3962**		**0.3962**	**0.3962**	**0.0000**	**10,112.6603**	**10,112.6603**	**1.9452**		**10,161.2906**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	2.7770	1.9435	25.6217	0.0678	6.3936	0.0501	6.4437	1.6956	0.0461	1.7417		6,751.6676	6,751.6676	0.2116		6,756.9579
Total	**2.8004**	**2.6323**	**25.7916**	**0.0694**	**6.4320**	**0.0546**	**6.4866**	**1.7067**	**0.0505**	**1.7571**		**6,916.3749**	**6,916.3749**	**0.2227**		**6,921.9423**

3.10 Building Construction-Phase 2 - 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	6.3278	48.8983	41.7455	0.0739		2.8656	2.8656		2.7867	2.7867		6,979.2016	6,979.2016	1.1772		7,008.6317
Total	**6.3278**	**48.8983**	**41.7455**	**0.0739**		**2.8656**	**2.8656**		**2.7867**	**2.7867**		**6,979.2016**	**6,979.2016**	**1.1772**		**7,008.6317**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	0.9710	0.6796	8.9587	0.0237	2.2355	0.0175	2.2530	0.5929	0.0161	0.6090		2,360.7230	2,360.7230	0.0740		2,362.5727
Total	**0.9944**	**1.3683**	**9.1285**	**0.0253**	**2.2739**	**0.0221**	**2.2960**	**0.6039**	**0.0205**	**0.6244**		**2,525.4303**	**2,525.4303**	**0.0851**		**2,527.5571**

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	2.1440	9.1229	44.6764	0.0739		0.4670	0.4670		0.4670	0.4670	0.0000	6,979.2016	6,979.2016	1.1772		7,008.6317
Total	**2.1440**	**9.1229**	**44.6764**	**0.0739**		**0.4670**	**0.4670**		**0.4670**	**0.4670**	**0.0000**	**6,979.2016**	**6,979.2016**	**1.1772**		**7,008.6317**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	0.9710	0.6796	8.9587	0.0237	2.2355	0.0175	2.2530	0.5929	0.0161	0.6090		2,360.7230	2,360.7230	0.0740		2,362.5727
Total	**0.9944**	**1.3683**	**9.1285**	**0.0253**	**2.2739**	**0.0221**	**2.2960**	**0.6039**	**0.0205**	**0.6244**		**2,525.4303**	**2,525.4303**	**0.0851**		**2,527.5571**

3.10 Building Construction-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.7063	44.7761	41.0525	0.0739		2.4888	2.4888		2.4201	2.4201		6,925.1526	6,925.1526	1.1356		6,953.5424

Total	**5.7063**	**44.7761**	**41.0525**	**0.0739**		**2.4888**	**2.4888**		**2.4201**	**2.4201**		**6,925.1526**	**6,925.1526**	**1.1356**		**6,953.5424**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.8971	0.6065	8.1516	0.0230	2.2355	0.0171	2.2526	0.5929	0.0157	0.6086		2,287.6727	2,287.6727	0.0659		2,289.3208
Total	**0.9170**	**1.2384**	**8.3053**	**0.0245**	**2.2739**	**0.0202**	**2.2941**	**0.6039**	**0.0187**	**0.6226**		**2,451.3474**	**2,451.3474**	**0.0764**		**2,453.2575**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9825	8.9244	44.5258	0.0739		0.4191	0.4191		0.4191	0.4191	0.0000	6,925.1526	6,925.1526	1.1356		6,953.5424
Total	**1.9825**	**8.9244**	**44.5258**	**0.0739**		**0.4191**	**0.4191**		**0.4191**	**0.4191**	**0.0000**	**6,925.1526**	**6,925.1526**	**1.1356**		**6,953.5424**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.8971	0.6065	8.1516	0.0230	2.2355	0.0171	2.2526	0.5929	0.0157	0.6086		2,287.6727	2,287.6727	0.0659		2,289.3208
Total	**0.9170**	**1.2384**	**8.3053**	**0.0245**	**2.2739**	**0.0202**	**2.2941**	**0.6039**	**0.0187**	**0.6226**		**2,451.3474**	**2,451.3474**	**0.0764**		**2,453.2575**

3.11 Architectural Coating-Phase 1 - 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					
Archit. Coating	53.9814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.6377	14.2832	17.4025	0.0275		0.7692	0.7692		0.7592	0.7592		2,653.9924	2,653.9924	0.5133		2,666.8254
Total	**55.6191**	**14.2832**	**17.4025**	**0.0275**		**0.7692**	**0.7692**		**0.7592**	**0.7592**		**2,653.9924**	**2,653.9924**	**0.5133**		**2,666.8254**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	0.5535	0.3873	5.1064	0.0135	1.2743	9.9700e-003	1.2842	0.3379	9.1900e-003	0.3471		1,345.6121	1,345.6121	0.0422		1,346.6664
Total	**0.5769**	**1.0761**	**5.2763**	**0.0151**	**1.3126**	**0.0145**	**1.3272**	**0.3490**	**0.0136**	**0.3626**		**1,510.3194**	**1,510.3194**	**0.0533**		**1,511.6508**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	53.9814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4586	7.7223	18.7206	0.0275		0.0405	0.0405		0.0405	0.0405	0.0000	2,653.9924	2,653.9924	0.5133		2,666.8254
Total	**54.4400**	**7.7223**	**18.7206**	**0.0275**		**0.0405**	**0.0405**		**0.0405**	**0.0405**	**0.0000**	**2,653.9924**	**2,653.9924**	**0.5133**		**2,666.8254**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	0.5535	0.3873	5.1064	0.0135	1.2743	9.9700e-003	1.2842	0.3379	9.1900e-003	0.3471		1,345.6121	1,345.6121	0.0422		1,346.6664
Total	**0.5769**	**1.0761**	**5.2763**	**0.0151**	**1.3126**	**0.0145**	**1.3272**	**0.3490**	**0.0136**	**0.3626**		**1,510.3194**	**1,510.3194**	**0.0533**		**1,511.6508**

3.12 Landscaping-Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6183	16.7068	16.8436	0.0232		1.0803	1.0803		0.9939	0.9939		2,298.0500	2,298.0500	0.7271		2,316.2270
Total	**1.6183**	**16.7068**	**16.8436**	**0.0232**		**1.0803**	**1.0803**		**0.9939**	**0.9939**		**2,298.0500**	**2,298.0500**	**0.7271**		**2,316.2270**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	0.0971	0.0680	0.8959	2.3700e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		236.0723	236.0723	7.4000e-003		236.2573
Total	**0.1205**	**0.7567**	**1.0657**	**3.9100e-003**	**0.2619**	**6.3200e-003**	**0.2683**	**0.0703**	**5.9800e-003**	**0.0763**		**400.7796**	**400.7796**	**0.0185**		**401.2416**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4268	7.1096	17.5499	0.0232		0.0380	0.0380		0.0380	0.0380	0.0000	2,298.0500	2,298.0500	0.7271		2,316.2270
Total	**0.4268**	**7.1096**	**17.5499**	**0.0232**		**0.0380**	**0.0380**		**0.0380**	**0.0380**	**0.0000**	**2,298.0500**	**2,298.0500**	**0.7271**		**2,316.2270**

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	0.0234	0.6888	0.1698	1.5400e-003	0.0384	4.5700e-003	0.0430	0.0111	4.3700e-003	0.0154		164.7073	164.7073	0.0111		164.9844
Worker	0.0971	0.0680	0.8959	2.3700e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		236.0723	236.0723	7.4000e-003		236.2573
Total	**0.1205**	**0.7567**	**1.0657**	**3.9100e-003**	**0.2619**	**6.3200e-003**	**0.2683**	**0.0703**	**5.9800e-003**	**0.0763**		**400.7796**	**400.7796**	**0.0185**		**401.2416**

3.13 Architectural Coating-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.2481					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	1.3593	10.8328	13.2606	0.0212		0.6084	0.6084		0.6041	0.6041		2,017.0647	2,017.0647	0.3062		2,024.7193
Total	**7.6074**	**10.8328**	**13.2606**	**0.0212**		**0.6084**	**0.6084**		**0.6041**	**0.6041**		**2,017.0647**	**2,017.0647**	**0.3062**		**2,024.7193**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.1794	0.1213	1.6303	4.5900e-003	0.4471	3.4100e-003	0.4505	0.1186	3.1400e-003	0.1217		457.5345	457.5345	0.0132		457.8642
Total	**0.1993**	**0.7532**	**1.7840**	**6.1200e-003**	**0.4855**	**6.5400e-003**	**0.4920**	**0.1296**	**6.1300e-003**	**0.1358**		**621.2093**	**621.2093**	**0.0237**		**621.8009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.2481					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3036	4.1831	13.9413	0.0212		0.0301	0.0301		0.0301	0.0301	0.0000	2,017.0647	2,017.0647	0.3062		2,024.7193
Total	**6.5517**	**4.1831**	**13.9413**	**0.0212**		**0.0301**	**0.0301**		**0.0301**	**0.0301**	**0.0000**	**2,017.0647**	**2,017.0647**	**0.3062**		**2,024.7193**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.1794	0.1213	1.6303	4.5900e-003	0.4471	3.4100e-003	0.4505	0.1186	3.1400e-003	0.1217		457.5345	457.5345	0.0132		457.8642
Total	**0.1993**	**0.7532**	**1.7840**	**6.1200e-003**	**0.4855**	**6.5400e-003**	**0.4920**	**0.1296**	**6.1300e-003**	**0.1358**		**621.2093**	**621.2093**	**0.0237**		**621.8009**

3.14 Paving-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3612	14.5887	13.6447	0.0260		0.7526	0.7526		0.6924	0.6924		2,517.7974	2,517.7974	0.8143		2,538.1551
Paving	1.3822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7434**	**14.5887**	**13.6447**	**0.0260**		**0.7526**	**0.7526**		**0.6924**	**0.6924**		**2,517.7974**	**2,517.7974**	**0.8143**		**2,538.1551**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059
Total	**0.0782**	**0.6714**	**0.6836**	**3.0200e-003**	**0.1837**	**4.2400e-003**	**0.1879**	**0.0496**	**4.0100e-003**	**0.0536**		**312.3735**	**312.3735**	**0.0148**		**312.7425**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3199	1.3861	17.1163	0.0260		0.0427	0.0427		0.0427	0.0427	0.0000	2,517.7974	2,517.7974	0.8143		2,538.1551
Paving	1.3822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7021**	**1.3861**	**17.1163**	**0.0260**		**0.0427**	**0.0427**		**0.0427**	**0.0427**	**0.0000**	**2,517.7974**	**2,517.7974**	**0.8143**		**2,538.1551**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.0583	0.0394	0.5299	1.4900e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		148.6987	148.6987	4.2900e-003		148.8059
Total	**0.0782**	**0.6714**	**0.6836**	**3.0200e-003**	**0.1837**	**4.2400e-003**	**0.1879**	**0.0496**	**4.0100e-003**	**0.0536**		**312.3735**	**312.3735**	**0.0148**		**312.7425**

3.15 Landscaping-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6992	6.8685	7.0714	9.6400e-003		0.4576	0.4576		0.4210	0.4210		933.8921	933.8921	0.3020		941.4430
Total	**0.6992**	**6.8685**	**7.0714**	**9.6400e-003**		**0.4576**	**0.4576**		**0.4210**	**0.4210**		**933.8921**	**933.8921**	**0.3020**		**941.4430**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.0269	0.0182	0.2446	6.9000e-004	0.0671	5.1000e-004	0.0676	0.0178	4.7000e-004	0.0183		68.6302	68.6302	1.9800e-003		68.6796
Total	**0.0468**	**0.6501**	**0.3983**	**2.2200e-003**	**0.1055**	**3.6400e-003**	**0.1091**	**0.0288**	**3.4600e-003**	**0.0323**		**232.3050**	**232.3050**	**0.0125**		**232.6163**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1890	3.4369	7.2908	9.6400e-003		0.0158	0.0158		0.0158	0.0158	0.0000	933.8921	933.8921	0.3020		941.4430
Total	**0.1890**	**3.4369**	**7.2908**	**9.6400e-003**		**0.0158**	**0.0158**		**0.0158**	**0.0158**	**0.0000**	**933.8921**	**933.8921**	**0.3020**		**941.4430**

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	0.0199	0.6319	0.1537	1.5300e-003	0.0384	3.1300e-003	0.0415	0.0111	2.9900e-003	0.0140		163.6748	163.6748	0.0105		163.9367
Worker	0.0269	0.0182	0.2446	6.9000e-004	0.0671	5.1000e-004	0.0676	0.0178	4.7000e-004	0.0183		68.6302	68.6302	1.9800e-003		68.6796
Total	**0.0468**	**0.6501**	**0.3983**	**2.2200e-003**	**0.1055**	**3.6400e-003**	**0.1091**	**0.0288**	**3.4600e-003**	**0.0323**		**232.3050**	**232.3050**	**0.0125**		**232.6163**

Burbank Avion Project

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	142.25	1000sqft	3.27	142,250.00	0
General Light Industry	1,014.89	1000sqft	23.30	1,014,887.00	0
Other Asphalt Surfaces	5.14	Acre	5.14	223,723.00	0
Parking Lot	2,390.00	Space	20.71	901,975.00	0
City Park	7.34	Acre	7.34	319,646.00	0
High Turnover (Sit Down Restaurant)	7.70	1000sqft	0.18	7,700.00	0
Hotel	166.00	Room	1.45	101,230.00	0
Regional Shopping Center	7.70	1000sqft	0.18	7,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2020
Utility Company	Burbank Water & Power				
CO2 Intensity (lb/MWhr)	1096.12	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - See construction assumptions

On-road Fugitive Dust -

Demolition -

Grading - see construction assumptions - concrete debris and excavated soils will be balanced onsite. To capture all emissions using CALEEMOD, assume the material imported is the combination of the two

Architectural Coating - Comply with SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - see construction assumptions

Area Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	636885	636923
tblAreaCoating	Area_Nonresidential_Interior	1910655	1910768
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
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tblFleetMix	FleetMixLandUseSubType	General Office Building	City Park
tblFleetMix	FleetMixLandUseSubType	Other Asphalt Surfaces	General Office Building
tblFleetMix	FleetMixLandUseSubType	Parking Lot	High Turnover (Sit Down Restaurant)
tblFleetMix	FleetMixLandUseSubType	City Park	Hotel
tblFleetMix	FleetMixLandUseSubType	High Turnover (Sit Down Restaurant)	Other Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Hotel	Parking Lot
tblGrading	AcresOfGrading	510.00	61.55
tblGrading	MaterialExported	0.00	261,000.00
tblGrading	MaterialImported	0.00	296,029.00
tblLandUse	BuildingSpaceSquareFeet	1,014,890.00	1,014,887.00
tblLandUse	BuildingSpaceSquareFeet	223,898.40	223,723.00
tblLandUse	BuildingSpaceSquareFeet	956,000.00	901,975.00
tblLandUse	BuildingSpaceSquareFeet	241,032.00	101,230.00
tblLandUse	GreenSpaceSquareFeet	319,730.40	319,646.00
tblLandUse	LandUseSquareFeet	1,014,890.00	1,014,887.00
tblLandUse	LandUseSquareFeet	223,898.40	223,723.00
tblLandUse	LandUseSquareFeet	956,000.00	901,975.00
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tblLandUse	LandUseSquareFeet	241,032.00	101,230.00
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tblLandUse	LotAcreage	5.53	1.45
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tblOffRoadEquipment	UsageHours	8.00	10.00
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tblTripsAndVMT	WorkerTripNumber	1,127.00	35.00
tblTripsAndVMT	WorkerTripNumber	1,127.00	572.00
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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	26.9082	305.0039	157.2221	0.3504	71.4867	12.6520	84.1387	16.8803	11.6403	28.5206	0.0000	35,270.2656	35,270.2656	10.6410	0.0000	35,536.2913
2019	77.1803	162.8215	175.9019	0.3525	10.3093	8.6845	18.9939	2.7387	8.3505	11.0892	0.0000	34,293.9828	34,293.9828	5.5673	0.0000	34,423.4448
2020	11.4036	46.0740	48.6145	0.0970	2.2739	2.5090	4.7829	0.6039	2.4388	3.0428	0.0000	9,230.0816	9,230.0816	1.4743	0.0000	9,260.2954
Maximum	**77.1803**	**305.0039**	**175.9019**	**0.3525**	**71.4867**	**12.6520**	**84.1387**	**16.8803**	**11.6403**	**28.5206**	**0.0000**	**35,270.2656**	**35,270.2656**	**10.6410**	**0.0000**	**35,536.2913**

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	7.8647	30.5479	174.7650	0.3504	28.4926	0.7208	29.0628	6.7469	0.7150	7.3160	0.0000	35,270.2655	35,270.2655	10.6410	0.0000	35,536.2912
2019	64.3348	34.7242	191.4958	0.3525	10.3093	1.0687	11.3781	2.7387	1.0614	3.8001	0.0000	34,293.9828	34,293.9828	5.5673	0.0000	34,423.4448
2020	8.7963	11.0976	52.0878	0.0970	2.2739	0.4394	2.7133	0.6039	0.4379	1.0418	0.0000	9,230.0816	9,230.0816	1.4743	0.0000	9,260.2954
Maximum	**64.3348**	**34.7242**	**191.4958**	**0.3525**	**28.4926**	**1.0687**	**29.0628**	**6.7469**	**1.0614**	**7.3160**	**0.0000**	**35,270.2655**	**35,270.2655**	**10.6410**	**0.0000**	**35,536.2912**

	ROG	NOx	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	**29.87**	**85.14**	**-9.59**	**0.00**	**51.14**	**90.65**	**60.01**	**50.11**	**90.13**	**71.50**	**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 (Remove pavement)-Phase 1	Demolition	4/1/2018	4/20/2018	6	17	
2	Grading-Phase 1	Grading	4/5/2018	6/2/2018	6	51	
3	Drainage/Utilities/Trenching-Phase 1	Building Construction	5/7/2018	6/5/2018	6	26	
4	Foundation-Phase 1	Building Construction	6/11/2018	11/15/2018	6	136	
5	Drainage/Utilities/Trenching-Phase 2	Building Construction	9/1/2018	9/27/2018	6	23	
6	Foundation-Phase 2	Building Construction	10/1/2018	1/10/2019	6	88	
7	Paving-Phase 1	Paving	10/23/2018	8/3/2019	6	245	
8	Building Construction-Phase 1	Building Construction	11/30/2018	8/7/2019	6	215	
9	Building Construction-Phase 2	Building Construction	1/21/2019	5/15/2020	6	413	
10	Architectural Coating-Phase 1	Architectural Coating	6/1/2019	10/1/2019	6	105	
11	Landscaping-Phase 1	Building Construction	9/3/2019	9/27/2019	6	22	
12	Architectural Coating-Phase 2	Architectural Coating	6/1/2020	8/28/2020	6	77	
13	Paving-Phase 2	Paving	7/1/2020	8/26/2020	6	49	
14	Landscaping-Phase 2	Building Construction	8/1/2020	8/28/2020	6	24	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 25.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,758,806; Non-Residential Outdoor: 586,269; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition (Remove pavement)-Phase 1	Off-Highway Trucks	3	6.00	402	0.38
Demolition (Remove pavement)-Phase 1	Rubber Tired Dozers	2	10.00	247	0.40
Demolition (Remove pavement)-Phase 1	Sweepers/Scrubbers	2	6.00	64	0.46
Demolition (Remove pavement)-Phase 1	Tractors/Loaders/Backhoes	2	10.00	97	0.37

Grading-Phase 1	Graders	4	10.00	187	0.41
Grading-Phase 1	Off-Highway Trucks	10	6.00	402	0.38
Grading-Phase 1	Rubber Tired Dozers	2	10.00	247	0.40
Grading-Phase 1	Scrapers	6	10.00	367	0.48
Grading-Phase 1	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Drainage/Utilities/Trenching-Phase 1	Cranes	1	10.00	231	0.29
Drainage/Utilities/Trenching-Phase 1	Excavators	2	10.00	158	0.38
Drainage/Utilities/Trenching-Phase 1	Off-Highway Trucks	1	6.00	402	0.38
Drainage/Utilities/Trenching-Phase 1	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Foundation-Phase 1	Aerial Lifts	3	10.00	63	0.31
Foundation-Phase 1	Bore/Drill Rigs	3	10.00	221	0.50
Foundation-Phase 1	Excavators	3	10.00	158	0.38
Foundation-Phase 1	Pumps	3	10.00	84	0.74
Foundation-Phase 1	Rough Terrain Forklifts	3	10.00	100	0.40
Foundation-Phase 1	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Drainage/Utilities/Trenching-Phase 2	Excavators	1	10.00	158	0.38
Drainage/Utilities/Trenching-Phase 2	Off-Highway Trucks	1	6.00	402	0.38
Drainage/Utilities/Trenching-Phase 2	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Drainage/Utilities/Trenching-Phase 2	Trenchers	1	10.00	78	0.50
Foundation-Phase 2	Aerial Lifts	2	10.00	63	0.31
Foundation-Phase 2	Bore/Drill Rigs	2	10.00	221	0.50
Foundation-Phase 2	Cranes	1	10.00	231	0.29
Foundation-Phase 2	Excavators	2	10.00	158	0.38
Foundation-Phase 2	Pumps	3	10.00	84	0.74
Foundation-Phase 2	Rough Terrain Forklifts	2	10.00	100	0.40
Foundation-Phase 2	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Paving-Phase 1	Pavers	2	10.00	130	0.42
Paving-Phase 1	Paving Equipment	5	10.00	132	0.36
Building Construction-Phase 1	Cranes	2	10.00	231	0.29
Building Construction-Phase 1	Forklifts	2	10.00	89	0.20

Building Construction-Phase 1	Generator Sets	4	10.00	84	0.74
Building Construction-Phase 1	Off-Highway Trucks	2	6.00	402	0.38
Building Construction-Phase 1	Pumps	2	10.00	84	0.74
Building Construction-Phase 1	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Building Construction-Phase 1	Welders	2	10.00	46	0.45
Building Construction-Phase 2	Air Compressors	3	10.00	78	0.48
Building Construction-Phase 2	Cranes	1	10.00	231	0.29
Building Construction-Phase 2	Forklifts	2	10.00	89	0.20
Building Construction-Phase 2	Generator Sets	2	10.00	84	0.74
Building Construction-Phase 2	Off-Highway Trucks	1	6.00	402	0.38
Building Construction-Phase 2	Pumps	1	10.00	84	0.74
Building Construction-Phase 2	Tractors/Loaders/Backhoes	1	10.00	97	0.37
Building Construction-Phase 2	Welders	3	10.00	46	0.45
Architectural Coating-Phase 1	Aerial Lifts	6	10.00	63	0.31
Architectural Coating-Phase 1	Air Compressors	3	10.00	78	0.48
Landscaping-Phase 1	Skid Steer Loaders	3	10.00	65	0.37
Landscaping-Phase 1	Sweepers/Scrubbers	2	6.00	64	0.46
Landscaping-Phase 1	Tractors/Loaders/Backhoes	3	10.00	97	0.37
Architectural Coating-Phase 2	Aerial Lifts	3	10.00	63	0.31
Architectural Coating-Phase 2	Air Compressors	3	10.00	78	0.48
Paving-Phase 2	Pavers	1	10.00	130	0.42
Paving-Phase 2	Paving Equipment	1	10.00	132	0.36
Paving-Phase 2	Rollers	2	10.00	80	0.38
Paving-Phase 2	Surfacing Equipment	1	10.00	263	0.30
Landscaping-Phase 2	Skid Steer Loaders	1	10.00	65	0.37
Landscaping-Phase 2	Sweepers/Scrubbers	1	10.00	64	0.46
Landscaping-Phase 2	Tractors/Loaders/Backhoes	1	10.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition (Remove pavement)-Phase 1	9	23.00	6.00	0.00	14.70	6.90	0.25	LD_Mix	HDT_Mix	HHDT
Grading-Phase 1	24	60.00	6.00	0.00	14.70	6.90	0.25	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching-Phase 1	6	15.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation-Phase 1	18	45.00	72.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching-Phase 2	5	13.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation-Phase 2	14	35.00	18.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase 1	7	18.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase 1	17	572.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction-Phase 2	14	200.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase 1	9	114.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping-Phase 1	8	20.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating-Phase 2	6	40.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving-Phase 2	5	13.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping-Phase 2	3	6.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition (Remove pavement)-Phase 1 - 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					52.9119	0.0000	52.9119	8.0113	0.0000	8.0113			0.0000			0.0000
Off-Road	5.7874	60.7056	29.2600	0.0627		3.0095	3.0095		2.7687	2.7687		6,307.6344	6,307.6344	1.9637		6,356.7257
Total	**5.7874**	**60.7056**	**29.2600**	**0.0627**	**52.9119**	**3.0095**	**55.9214**	**8.0113**	**2.7687**	**10.7800**		**6,307.6344**	**6,307.6344**	**1.9637**		**6,356.7257**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.1348	0.0974	1.0486	2.6400e-003	0.2571	2.0600e-003	0.2592	0.0682	1.9000e-003	0.0701		262.9481	262.9481	9.0100e-003		263.1732
Total	**0.1617**	**0.8279**	**1.2529**	**4.1600e-003**	**0.2955**	**7.4700e-003**	**0.3030**	**0.0792**	**7.0800e-003**	**0.0863**		**424.7329**	**424.7329**	**0.0213**		**425.2649**

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					20.6357	0.0000	20.6357	3.1244	0.0000	3.1244			0.0000			0.0000
Off-Road	0.8135	5.2543	31.6573	0.0627		0.1022	0.1022		0.1022	0.1022	0.0000	6,307.6344	6,307.6344	1.9637		6,356.7257

Total	**0.8135**	**5.2543**	**31.6573**	**0.0627**	**20.6357**	**0.1022**	**20.7379**	**3.1244**	**0.1022**	**3.2267**	**0.0000**	**6,307.6344**	**6,307.6344**	**1.9637**		**6,356.7257**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.1348	0.0974	1.0486	2.6400e-003	0.2571	2.0600e-003	0.2592	0.0682	1.9000e-003	0.0701		262.9481	262.9481	9.0100e-003		263.1732
Total	**0.1617**	**0.8279**	**1.2529**	**4.1600e-003**	**0.2955**	**7.4700e-003**	**0.3030**	**0.0792**	**7.0800e-003**	**0.0863**		**424.7329**	**424.7329**	**0.0213**		**425.2649**

3.3 Grading-Phase 1 - 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					17.5703	0.0000	17.5703	8.6008	0.0000	8.6008			0.0000			0.0000
Off-Road	20.5808	242.4860	123.7693	0.2751		9.6243	9.6243		8.8544	8.8544		27,690.1620	27,690.1620	8.6203		27,905.6701
Total	**20.5808**	**242.4860**	**123.7693**	**0.2751**	**17.5703**	**9.6243**	**27.1946**	**8.6008**	**8.8544**	**17.4552**		**27,690.1620**	**27,690.1620**	**8.6203**		**27,905.6701**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.3515	0.2540	2.7355	6.8900e-003	0.6707	5.3800e-003	0.6760	0.1779	4.9600e-003	0.1828		685.9515	685.9515	0.0235		686.5388
Total	**0.3784**	**0.9845**	**2.9398**	**8.4100e-003**	**0.7091**	**0.0108**	**0.7198**	**0.1889**	**0.0101**	**0.1991**		**847.7363**	**847.7363**	**0.0358**		**848.6305**

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					6.8524	0.0000	6.8524	3.3543	0.0000	3.3543			0.0000			0.0000
Off-Road	3.3725	14.6142	126.0327	0.2751		0.4497	0.4497		0.4497	0.4497	0.0000	27,690.1620	27,690.1620	8.6203		27,905.6701
Total	**3.3725**	**14.6142**	**126.0327**	**0.2751**	**6.8524**	**0.4497**	**7.3021**	**3.3543**	**0.4497**	**3.8040**	**0.0000**	**27,690.1620**	**27,690.1620**	**8.6203**		**27,905.6701**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.3515	0.2540	2.7355	6.8900e-003	0.6707	5.3800e-003	0.6760	0.1779	4.9600e-003	0.1828		685.9515	685.9515	0.0235		686.5388
Total	**0.3784**	**0.9845**	**2.9398**	**8.4100e-003**	**0.7091**	**0.0108**	**0.7198**	**0.1889**	**0.0101**	**0.1991**		**847.7363**	**847.7363**	**0.0358**		**848.6305**

3.4 Drainage/Utilities/Trenching-Phase 1 - 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	2.6815	29.0838	20.3345	0.0378		1.4380	1.4380		1.3230	1.3230		3,803.8620	3,803.8620	1.1842		3,833.4669
Total	**2.6815**	**29.0838**	**20.3345**	**0.0378**		**1.4380**	**1.4380**		**1.3230**	**1.3230**		**3,803.8620**	**3,803.8620**	**1.1842**		**3,833.4669**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.0879	0.0635	0.6839	1.7200e-003	0.1677	1.3400e-003	0.1690	0.0445	1.2400e-003	0.0457		171.4879	171.4879	5.8700e-003		171.6347
Total	**0.1148**	**0.7940**	**0.8882**	**3.2400e-003**	**0.2061**	**6.7500e-003**	**0.2128**	**0.0555**	**6.4200e-003**	**0.0619**		**333.2727**	**333.2727**	**0.0182**		**333.7264**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4636	2.0091	23.3448	0.0378		0.0618	0.0618		0.0618	0.0618	0.0000	3,803.8620	3,803.8620	1.1842		3,833.4669
Total	**0.4636**	**2.0091**	**23.3448**	**0.0378**		**0.0618**	**0.0618**		**0.0618**	**0.0618**	**0.0000**	**3,803.8620**	**3,803.8620**	**1.1842**		**3,833.4669**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.0879	0.0635	0.6839	1.7200e-003	0.1677	1.3400e-003	0.1690	0.0445	1.2400e-003	0.0457		171.4879	171.4879	5.8700e-003		171.6347
Total	**0.1148**	**0.7940**	**0.8882**	**3.2400e-003**	**0.2061**	**6.7500e-003**	**0.2128**	**0.0555**	**6.4200e-003**	**0.0619**		**333.2727**	**333.2727**	**0.0182**		**333.7264**

3.5 Foundation-Phase 1 - 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	5.9509	63.0538	55.9011	0.1101		3.1758	3.1758		3.0046	3.0046		10,932.1197	10,932.1197	2.8528		11,003.4385
Total	**5.9509**	**63.0538**	**55.9011**	**0.1101**		**3.1758**	**3.1758**		**3.0046**	**3.0046**		**10,932.1197**	**10,932.1197**	**2.8528**		**11,003.4385**

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	0.3228	8.7661	2.4520	0.0182	0.4607	0.0649	0.5257	0.1326	0.0621	0.1948		1,941.4175	1,941.4175	0.1473		1,945.1005
Worker	0.2636	0.1905	2.0516	5.1700e-003	0.5030	4.0300e-003	0.5070	0.1334	3.7200e-003	0.1371		514.4636	514.4636	0.0176		514.9041
Total	**0.5865**	**8.9565**	**4.5036**	**0.0234**	**0.9637**	**0.0690**	**1.0327**	**0.2660**	**0.0658**	**0.3319**		**2,455.8811**	**2,455.8811**	**0.1649**		**2,460.0046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3796	8.8458	69.3328	0.1101		0.1736	0.1736		0.1736	0.1736	0.0000	10,932.1197	10,932.1197	2.8528		11,003.4385

Total	**1.3796**	**8.8458**	**69.3328**	**0.1101**		**0.1736**	**0.1736**		**0.1736**	**0.1736**	**0.0000**	**10,932.1197**	**10,932.1197**	**2.8528**		**11,003.4385**

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	0.3228	8.7661	2.4520	0.0182	0.4607	0.0649	0.5257	0.1326	0.0621	0.1948		1,941.4175	1,941.4175	0.1473		1,945.1005
Worker	0.2636	0.1905	2.0516	5.1700e-003	0.5030	4.0300e-003	0.5070	0.1334	3.7200e-003	0.1371		514.4636	514.4636	0.0176		514.9041
Total	**0.5865**	**8.9565**	**4.5036**	**0.0234**	**0.9637**	**0.0690**	**1.0327**	**0.2660**	**0.0658**	**0.3319**		**2,455.8811**	**2,455.8811**	**0.1649**		**2,460.0046**

3.6 Drainage/Utilities/Trenching-Phase 2 - 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	2.1725	21.7739	16.4020	0.0284		1.2682	1.2682		1.1668	1.1668		2,853.1308	2,853.1308	0.8882		2,875.3363
Total	**2.1725**	**21.7739**	**16.4020**	**0.0284**		**1.2682**	**1.2682**		**1.1668**	**1.1668**		**2,853.1308**	**2,853.1308**	**0.8882**		**2,875.3363**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.0762	0.0550	0.5927	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		148.6228	148.6228	5.0900e-003		148.7501
Total	**0.1031**	**0.7855**	**0.7970**	**3.0100e-003**	**0.1837**	**6.5800e-003**	**0.1903**	**0.0496**	**6.2500e-003**	**0.0558**		**310.4076**	**310.4076**	**0.0174**		**310.8418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3472	1.5045	18.3794	0.0284		0.0463	0.0463		0.0463	0.0463	0.0000	2,853.1308	2,853.1308	0.8882		2,875.3363
Total	**0.3472**	**1.5045**	**18.3794**	**0.0284**		**0.0463**	**0.0463**		**0.0463**	**0.0463**	**0.0000**	**2,853.1308**	**2,853.1308**	**0.8882**		**2,875.3363**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	0.0762	0.0550	0.5927	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0700e-003	0.0396		148.6228	148.6228	5.0900e-003		148.7501
Total	**0.1031**	**0.7855**	**0.7970**	**3.0100e-003**	**0.1837**	**6.5800e-003**	**0.1903**	**0.0496**	**6.2500e-003**	**0.0558**		**310.4076**	**310.4076**	**0.0174**		**310.8418**

3.7 Foundation-Phase 2 - 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	5.3453	55.7803	45.1763	0.0889		2.8316	2.8316		2.6879	2.6879		8,792.6204	8,792.6204	2.1867		8,847.2879
Total	**5.3453**	**55.7803**	**45.1763**	**0.0889**		**2.8316**	**2.8316**		**2.6879**	**2.6879**		**8,792.6204**	**8,792.6204**	**2.1867**		**8,847.2879**

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	0.0807	2.1915	0.6130	4.5500e-003	0.1152	0.0162	0.1314	0.0332	0.0155	0.0487		485.3544	485.3544	0.0368		486.2751
Worker	0.2051	0.1481	1.5957	4.0200e-003	0.3912	3.1400e-003	0.3944	0.1038	2.8900e-003	0.1066		400.1384	400.1384	0.0137		400.4810
Total	**0.2858**	**2.3397**	**2.2087**	**8.5700e-003**	**0.5064**	**0.0194**	**0.5258**	**0.1369**	**0.0184**	**0.1553**		**885.4928**	**885.4928**	**0.0505**		**886.7561**

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	lb/day										lb/day					
Off-Road	1.0906	6.6375	54.5414	0.0889		0.1385	0.1385		0.1385	0.1385	0.0000	8,792.6204	8,792.6204	2.1867		8,847.2878
Total	**1.0906**	**6.6375**	**54.5414**	**0.0889**		**0.1385**	**0.1385**		**0.1385**	**0.1385**	**0.0000**	**8,792.6204**	**8,792.6204**	**2.1867**		**8,847.2878**

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	0.0807	2.1915	0.6130	4.5500e-003	0.1152	0.0162	0.1314	0.0332	0.0155	0.0487		485.3544	485.3544	0.0368		486.2751
Worker	0.2051	0.1481	1.5957	4.0200e-003	0.3912	3.1400e-003	0.3944	0.1038	2.8900e-003	0.1066		400.1384	400.1384	0.0137		400.4810
Total	**0.2858**	**2.3397**	**2.2087**	**8.5700e-003**	**0.5064**	**0.0194**	**0.5258**	**0.1369**	**0.0184**	**0.1553**		**885.4928**	**885.4928**	**0.0505**		**886.7561**

3.7 Foundation-Phase 2 - 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	4.7840	49.9900	44.6068	0.0888		2.4335	2.4335		2.3101	2.3101		8,683.2091	8,683.2091	2.1643		8,737.3165
Total	**4.7840**	**49.9900**	**44.6068**	**0.0888**		**2.4335**	**2.4335**		**2.3101**	**2.3101**		**8,683.2091**	**8,683.2091**	**2.1643**		**8,737.3165**

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	0.0732	2.0688	0.5643	4.5000e-003	0.1152	0.0139	0.1291	0.0332	0.0133	0.0465		480.8501	480.8501	0.0356		481.7390
Worker	0.1866	0.1307	1.4244	3.8900e-003	0.3912	3.0600e-003	0.3943	0.1038	2.8200e-003	0.1066		387.5086	387.5086	0.0122		387.8123
Total	**0.2598**	**2.1995**	**1.9887**	**8.3900e-003**	**0.5064**	**0.0170**	**0.5234**	**0.1369**	**0.0161**	**0.1530**		**868.3586**	**868.3586**	**0.0477**		**869.5513**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0906	6.6375	54.5414	0.0888		0.1385	0.1385		0.1385	0.1385	0.0000	8,683.2091	8,683.2091	2.1643		8,737.3165

Total	**1.0906**	**6.6375**	**54.5414**	**0.0888**		**0.1385**	**0.1385**		**0.1385**	**0.1385**	**0.0000**	**8,683.2091**	**8,683.2091**	**2.1643**		**8,737.3165**

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	0.0732	2.0688	0.5643	4.5000e-003	0.1152	0.0139	0.1291	0.0332	0.0133	0.0465		480.8501	480.8501	0.0356		481.7390
Worker	0.1866	0.1307	1.4244	3.8900e-003	0.3912	3.0600e-003	0.3943	0.1038	2.8200e-003	0.1066		387.5086	387.5086	0.0122		387.8123
Total	**0.2598**	**2.1995**	**1.9887**	**8.3900e-003**	**0.5064**	**0.0170**	**0.5234**	**0.1369**	**0.0161**	**0.1530**		**868.3586**	**868.3586**	**0.0477**		**869.5513**

3.8 Paving-Phase 1 - 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	2.3015	25.6371	23.1674	0.0372		1.2543	1.2543		1.1540	1.1540		3,745.3642	3,745.3642	1.1660		3,774.5138
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.5779**	**25.6371**	**23.1674**	**0.0372**		**1.2543**	**1.2543**		**1.1540**	**1.1540**		**3,745.3642**	**3,745.3642**	**1.1660**		**3,774.5138**

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	0.0628	1.7045	0.4768	3.5400e-003	0.0896	0.0126	0.1022	0.0258	0.0121	0.0379		377.4978	377.4978	0.0287		378.2140
Worker	0.1055	0.0762	0.8206	2.0700e-003	0.2012	1.6100e-003	0.2028	0.0534	1.4900e-003	0.0549		205.7855	205.7855	7.0500e-003		205.9616
Total	**0.1682**	**1.7807**	**1.2974**	**5.6100e-003**	**0.2908**	**0.0142**	**0.3050**	**0.0792**	**0.0136**	**0.0927**		**583.2833**	**583.2833**	**0.0357**		**584.1756**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4587	1.9879	28.2888	0.0372		0.0612	0.0612		0.0612	0.0612	0.0000	3,745.3642	3,745.3642	1.1660		3,774.5138
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7352**	**1.9879**	**28.2888**	**0.0372**		**0.0612**	**0.0612**		**0.0612**	**0.0612**	**0.0000**	**3,745.3642**	**3,745.3642**	**1.1660**		**3,774.5138**

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	0.0628	1.7045	0.4768	3.5400e-003	0.0896	0.0126	0.1022	0.0258	0.0121	0.0379		377.4978	377.4978	0.0287		378.2140
Worker	0.1055	0.0762	0.8206	2.0700e-003	0.2012	1.6100e-003	0.2028	0.0534	1.4900e-003	0.0549		205.7855	205.7855	7.0500e-003		205.9616
Total	**0.1682**	**1.7807**	**1.2974**	**5.6100e-003**	**0.2908**	**0.0142**	**0.3050**	**0.0792**	**0.0136**	**0.0927**		**583.2833**	**583.2833**	**0.0357**		**584.1756**

3.8 Paving-Phase 1 - 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	2.0502	21.9148	23.0259	0.0372		1.0822	1.0822		0.9957	0.9957		3,684.4910	3,684.4910	1.1657		3,713.6344
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3267**	**21.9148**	**23.0259**	**0.0372**		**1.0822**	**1.0822**		**0.9957**	**0.9957**		**3,684.4910**	**3,684.4910**	**1.1657**		**3,713.6344**

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	0.0569	1.6091	0.4389	3.5000e-003	0.0896	0.0108	0.1004	0.0258	0.0104	0.0361		373.9945	373.9945	0.0277		374.6859
Worker	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.1529**	**1.6763**	**1.1714**	**5.5000e-003**	**0.2908**	**0.0124**	**0.3032**	**0.0792**	**0.0118**	**0.0910**		**573.2846**	**573.2846**	**0.0339**		**574.1322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4587	1.9879	28.2888	0.0372		0.0612	0.0612		0.0612	0.0612	0.0000	3,684.4910	3,684.4910	1.1657		3,713.6344
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7352**	**1.9879**	**28.2888**	**0.0372**		**0.0612**	**0.0612**		**0.0612**	**0.0612**	**0.0000**	**3,684.4910**	**3,684.4910**	**1.1657**		**3,713.6344**

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	0.0569	1.6091	0.4389	3.5000e-003	0.0896	0.0108	0.1004	0.0258	0.0104	0.0361		373.9945	373.9945	0.0277		374.6859
Worker	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.1529**	**1.6763**	**1.1714**	**5.5000e-003**	**0.2908**	**0.0124**	**0.3032**	**0.0792**	**0.0118**	**0.0910**		**573.2846**	**573.2846**	**0.0339**		**574.1322**

3.9 Building Construction-Phase 1 - 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	8.9907	78.5458	57.2947	0.1054		4.4912	4.4912		4.3147	4.3147		10,194.7513	10,194.7513	1.9997		10,244.7433
Total	**8.9907**	**78.5458**	**57.2947**	**0.1054**		**4.4912**	**4.4912**		**4.3147**	**4.3147**		**10,194.7513**	**10,194.7513**	**1.9997**		**10,244.7433**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	3.3511	2.4210	26.0782	0.0657	6.3936	0.0513	6.4449	1.6956	0.0473	1.7429		6,539.4044	6,539.4044	0.2240		6,545.0033
Total	**3.3780**	**3.1515**	**26.2825**	**0.0672**	**6.4320**	**0.0567**	**6.4887**	**1.7067**	**0.0524**	**1.7591**		**6,701.1892**	**6,701.1892**	**0.2362**		**6,707.0950**

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	2.2069	8.9826	62.1462	0.1054		0.4309	0.4309		0.4309	0.4309	0.0000	10,194.7513	10,194.7513	1.9997		10,244.7433

Total	**2.2069**	**8.9826**	**62.1462**	**0.1054**		**0.4309**	**0.4309**		**0.4309**	**0.4309**	**0.0000**	**10,194.7513**	**10,194.7513**	**1.9997**		**10,244.7433**

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	0.0269	0.7305	0.2043	1.5200e-003	0.0384	5.4100e-003	0.0438	0.0111	5.1800e-003	0.0162		161.7848	161.7848	0.0123		162.0917
Worker	3.3511	2.4210	26.0782	0.0657	6.3936	0.0513	6.4449	1.6956	0.0473	1.7429		6,539.4044	6,539.4044	0.2240		6,545.0033
Total	**3.3780**	**3.1515**	**26.2825**	**0.0672**	**6.4320**	**0.0567**	**6.4887**	**1.7067**	**0.0524**	**1.7591**		**6,701.1892**	**6,701.1892**	**0.2362**		**6,707.0950**

3.9 Building Construction-Phase 1 - 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	7.9566	70.6724	55.9346	0.1054		3.8637	3.8637		3.7124	3.7124		10,112.6603	10,112.6603	1.9452		10,161.2906
Total	**7.9566**	**70.6724**	**55.9346**	**0.1054**		**3.8637**	**3.8637**		**3.7124**	**3.7124**		**10,112.6603**	**10,112.6603**	**1.9452**		**10,161.2906**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	3.0498	2.1355	23.2788	0.0636	6.3936	0.0501	6.4437	1.6956	0.0461	1.7417		6,332.9973	6,332.9973	0.1986		6,337.9612
Total	**3.0742**	**2.8251**	**23.4669**	**0.0651**	**6.4320**	**0.0547**	**6.4867**	**1.7067**	**0.0506**	**1.7572**		**6,493.2806**	**6,493.2806**	**0.2104**		**6,498.5408**

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	2.0655	8.8384	62.0166	0.1054		0.3962	0.3962		0.3962	0.3962	0.0000	10,112.6603	10,112.6603	1.9452		10,161.2906
Total	**2.0655**	**8.8384**	**62.0166**	**0.1054**		**0.3962**	**0.3962**		**0.3962**	**0.3962**	**0.0000**	**10,112.6603**	**10,112.6603**	**1.9452**		**10,161.2906**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	3.0498	2.1355	23.2788	0.0636	6.3936	0.0501	6.4437	1.6956	0.0461	1.7417		6,332.9973	6,332.9973	0.1986		6,337.9612
Total	**3.0742**	**2.8251**	**23.4669**	**0.0651**	**6.4320**	**0.0547**	**6.4867**	**1.7067**	**0.0506**	**1.7572**		**6,493.2806**	**6,493.2806**	**0.2104**		**6,498.5408**

3.10 Building Construction-Phase 2 - 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	6.3278	48.8983	41.7455	0.0739		2.8656	2.8656		2.7867	2.7867		6,979.2016	6,979.2016	1.1772		7,008.6317
Total	**6.3278**	**48.8983**	**41.7455**	**0.0739**		**2.8656**	**2.8656**		**2.7867**	**2.7867**		**6,979.2016**	**6,979.2016**	**1.1772**		**7,008.6317**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	1.0664	0.7467	8.1394	0.0222	2.2355	0.0175	2.2530	0.5929	0.0161	0.6090		2,214.3347	2,214.3347	0.0694		2,216.0703
Total	**1.0908**	**1.4363**	**8.3275**	**0.0237**	**2.2739**	**0.0221**	**2.2961**	**0.6039**	**0.0206**	**0.6245**		**2,374.6181**	**2,374.6181**	**0.0813**		**2,376.6500**

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	2.1440	9.1229	44.6764	0.0739		0.4670	0.4670		0.4670	0.4670	0.0000	6,979.2016	6,979.2016	1.1772		7,008.6317
Total	**2.1440**	**9.1229**	**44.6764**	**0.0739**		**0.4670**	**0.4670**		**0.4670**	**0.4670**	**0.0000**	**6,979.2016**	**6,979.2016**	**1.1772**		**7,008.6317**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	1.0664	0.7467	8.1394	0.0222	2.2355	0.0175	2.2530	0.5929	0.0161	0.6090		2,214.3347	2,214.3347	0.0694		2,216.0703
Total	**1.0908**	**1.4363**	**8.3275**	**0.0237**	**2.2739**	**0.0221**	**2.2961**	**0.6039**	**0.0206**	**0.6245**		**2,374.6181**	**2,374.6181**	**0.0813**		**2,376.6500**

3.10 Building Construction-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.7063	44.7761	41.0525	0.0739		2.4888	2.4888		2.4201	2.4201		6,925.1526	6,925.1526	1.1356		6,953.5424
Total	**5.7063**	**44.7761**	**41.0525**	**0.0739**		**2.4888**	**2.4888**		**2.4201**	**2.4201**		**6,925.1526**	**6,925.1526**	**1.1356**		**6,953.5424**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.9869	0.6662	7.3917	0.0215	2.2355	0.0171	2.2526	0.5929	0.0157	0.6086		2,145.7026	2,145.7026	0.0618		2,147.2466
Total	**1.0077**	**1.2979**	**7.5620**	**0.0230**	**2.2739**	**0.0202**	**2.2942**	**0.6039**	**0.0188**	**0.6227**		**2,304.9290**	**2,304.9290**	**0.0730**		**2,306.7529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9825	8.9244	44.5258	0.0739		0.4191	0.4191		0.4191	0.4191	0.0000	6,925.1526	6,925.1526	1.1356		6,953.5424

Total	**1.9825**	**8.9244**	**44.5258**	**0.0739**		**0.4191**	**0.4191**		**0.4191**	**0.4191**	**0.0000**	**6,925.1526**	**6,925.1526**	**1.1356**		**6,953.5424**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.9869	0.6662	7.3917	0.0215	2.2355	0.0171	2.2526	0.5929	0.0157	0.6086		2,145.7026	2,145.7026	0.0618		2,147.2466
Total	**1.0077**	**1.2979**	**7.5620**	**0.0230**	**2.2739**	**0.0202**	**2.2942**	**0.6039**	**0.0188**	**0.6227**		**2,304.9290**	**2,304.9290**	**0.0730**		**2,306.7529**

3.11 Architectural Coating-Phase 1 - 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					
Archit. Coating	53.9814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.6377	14.2832	17.4025	0.0275		0.7692	0.7692		0.7592	0.7592		2,653.9924	2,653.9924	0.5133		2,666.8254
Total	**55.6191**	**14.2832**	**17.4025**	**0.0275**		**0.7692**	**0.7692**		**0.7592**	**0.7592**		**2,653.9924**	**2,653.9924**	**0.5133**		**2,666.8254**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	0.6078	0.4256	4.6395	0.0127	1.2743	9.9700e-003	1.2842	0.3379	9.1900e-003	0.3471		1,262.1708	1,262.1708	0.0396		1,263.1601
Total	**0.6322**	**1.1152**	**4.8276**	**0.0142**	**1.3126**	**0.0146**	**1.3273**	**0.3490**	**0.0136**	**0.3626**		**1,422.4542**	**1,422.4542**	**0.0514**		**1,423.7398**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	53.9814					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4586	7.7223	18.7206	0.0275		0.0405	0.0405		0.0405	0.0405	0.0000	2,653.9924	2,653.9924	0.5133		2,666.8254
Total	**54.4400**	**7.7223**	**18.7206**	**0.0275**		**0.0405**	**0.0405**		**0.0405**	**0.0405**	**0.0000**	**2,653.9924**	**2,653.9924**	**0.5133**		**2,666.8254**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	0.6078	0.4256	4.6395	0.0127	1.2743	9.9700e-003	1.2842	0.3379	9.1900e-003	0.3471		1,262.1708	1,262.1708	0.0396		1,263.1601
Total	**0.6322**	**1.1152**	**4.8276**	**0.0142**	**1.3126**	**0.0146**	**1.3273**	**0.3490**	**0.0136**	**0.3626**		**1,422.4542**	**1,422.4542**	**0.0514**		**1,423.7398**

3.12 Landscaping-Phase 1 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6183	16.7068	16.8436	0.0232		1.0803	1.0803		0.9939	0.9939		2,298.0500	2,298.0500	0.7271		2,316.2270
Total	**1.6183**	**16.7068**	**16.8436**	**0.0232**		**1.0803**	**1.0803**		**0.9939**	**0.9939**		**2,298.0500**	**2,298.0500**	**0.7271**		**2,316.2270**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	0.1066	0.0747	0.8139	2.2200e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		221.4335	221.4335	6.9400e-003		221.6070
Total	**0.1310**	**0.7643**	**1.0020**	**3.7200e-003**	**0.2619**	**6.3900e-003**	**0.2683**	**0.0703**	**6.0500e-003**	**0.0764**		**381.7168**	**381.7168**	**0.0188**		**382.1867**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4268	7.1096	17.5499	0.0232		0.0380	0.0380		0.0380	0.0380	0.0000	2,298.0500	2,298.0500	0.7271		2,316.2270
Total	**0.4268**	**7.1096**	**17.5499**	**0.0232**		**0.0380**	**0.0380**		**0.0380**	**0.0380**	**0.0000**	**2,298.0500**	**2,298.0500**	**0.7271**		**2,316.2270**

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	0.0244	0.6896	0.1881	1.5000e-003	0.0384	4.6400e-003	0.0430	0.0111	4.4400e-003	0.0155		160.2834	160.2834	0.0119		160.5797
Worker	0.1066	0.0747	0.8139	2.2200e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		221.4335	221.4335	6.9400e-003		221.6070
Total	**0.1310**	**0.7643**	**1.0020**	**3.7200e-003**	**0.2619**	**6.3900e-003**	**0.2683**	**0.0703**	**6.0500e-003**	**0.0764**		**381.7168**	**381.7168**	**0.0188**		**382.1867**

3.13 Architectural Coating-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.2481					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.3593	10.8328	13.2606	0.0212		0.6084	0.6084		0.6041	0.6041		2,017.0647	2,017.0647	0.3062		2,024.7193
Total	**7.6074**	**10.8328**	**13.2606**	**0.0212**		**0.6084**	**0.6084**		**0.6041**	**0.6041**		**2,017.0647**	**2,017.0647**	**0.3062**		**2,024.7193**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.1974	0.1332	1.4783	4.3100e-003	0.4471	3.4100e-003	0.4505	0.1186	3.1400e-003	0.1217		429.1405	429.1405	0.0124		429.4493
Total	**0.2182**	**0.7649**	**1.6487**	**5.8000e-003**	**0.4855**	**6.5900e-003**	**0.4921**	**0.1296**	**6.1800e-003**	**0.1358**		**588.3670**	**588.3670**	**0.0236**		**588.9557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.2481					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	0.3036	4.1831	13.9413	0.0212		0.0301	0.0301		0.0301	0.0301	0.0000	2,017.0647	2,017.0647	0.3062		2,024.7193
Total	**6.5517**	**4.1831**	**13.9413**	**0.0212**		**0.0301**	**0.0301**		**0.0301**	**0.0301**	**0.0000**	**2,017.0647**	**2,017.0647**	**0.3062**		**2,024.7193**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.1974	0.1332	1.4783	4.3100e-003	0.4471	3.4100e-003	0.4505	0.1186	3.1400e-003	0.1217		429.1405	429.1405	0.0124		429.4493
Total	**0.2182**	**0.7649**	**1.6487**	**5.8000e-003**	**0.4855**	**6.5900e-003**	**0.4921**	**0.1296**	**6.1800e-003**	**0.1358**		**588.3670**	**588.3670**	**0.0236**		**588.9557**

3.14 Paving-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3612	14.5887	13.6447	0.0260		0.7526	0.7526		0.6924	0.6924		2,517.7974	2,517.7974	0.8143		2,538.1551
Paving	1.3822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.7434**	**14.5887**	**13.6447**	**0.0260**		**0.7526**	**0.7526**		**0.6924**	**0.6924**		**2,517.7974**	**2,517.7974**	**0.8143**		**2,538.1551**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710
Total	**0.0850**	**0.6750**	**0.6508**	**2.8900e-003**	**0.1837**	**4.2900e-003**	**0.1880**	**0.0496**	**4.0600e-003**	**0.0537**		**298.6971**	**298.6971**	**0.0152**		**299.0774**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3199	1.3861	17.1163	0.0260		0.0427	0.0427		0.0427	0.0427	0.0000	2,517.7974	2,517.7974	0.8143		2,538.1551
Paving	1.3822					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7021**	**1.3861**	**17.1163**	**0.0260**		**0.0427**	**0.0427**		**0.0427**	**0.0427**	**0.0000**	**2,517.7974**	**2,517.7974**	**0.8143**		**2,538.1551**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.0642	0.0433	0.4805	1.4000e-003	0.1453	1.1100e-003	0.1464	0.0385	1.0200e-003	0.0396		139.4707	139.4707	4.0100e-003		139.5710
Total	**0.0850**	**0.6750**	**0.6508**	**2.8900e-003**	**0.1837**	**4.2900e-003**	**0.1880**	**0.0496**	**4.0600e-003**	**0.0537**		**298.6971**	**298.6971**	**0.0152**		**299.0774**

3.15 Landscaping-Phase 2 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6992	6.8685	7.0714	9.6400e-003		0.4576	0.4576		0.4210	0.4210		933.8921	933.8921	0.3020		941.4430
Total	**0.6992**	**6.8685**	**7.0714**	**9.6400e-003**		**0.4576**	**0.4576**		**0.4210**	**0.4210**		**933.8921**	**933.8921**	**0.3020**		**941.4430**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.0296	0.0200	0.2218	6.5000e-004	0.0671	5.1000e-004	0.0676	0.0178	4.7000e-004	0.0183		64.3711	64.3711	1.8500e-003		64.4174
Total	**0.0504**	**0.6517**	**0.3921**	**2.1400e-003**	**0.1055**	**3.6900e-003**	**0.1092**	**0.0288**	**3.5100e-003**	**0.0324**		**223.5975**	**223.5975**	**0.0131**		**223.9238**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1890	3.4369	7.2908	9.6400e-003		0.0158	0.0158		0.0158	0.0158	0.0000	933.8921	933.8921	0.3020		941.4430
Total	**0.1890**	**3.4369**	**7.2908**	**9.6400e-003**		**0.0158**	**0.0158**		**0.0158**	**0.0158**	**0.0000**	**933.8921**	**933.8921**	**0.3020**		**941.4430**

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	0.0208	0.6317	0.1703	1.4900e-003	0.0384	3.1800e-003	0.0416	0.0111	3.0400e-003	0.0141		159.2264	159.2264	0.0112		159.5064
Worker	0.0296	0.0200	0.2218	6.5000e-004	0.0671	5.1000e-004	0.0676	0.0178	4.7000e-004	0.0183		64.3711	64.3711	1.8500e-003		64.4174
Total	**0.0504**	**0.6517**	**0.3921**	**2.1400e-003**	**0.1055**	**3.6900e-003**	**0.1092**	**0.0288**	**3.5100e-003**	**0.0324**		**223.5975**	**223.5975**	**0.0131**		**223.9238**

Avion Burbank Project
Construction Analysis
Vendor Truck Idling Activity
On and Off Site Emissions Summary (Regional)

SUMMER	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
			lb/day			
Demolition (Remove pavement)-Phase 1 - 2018	0.96	6.07	32.99	0.07	21.04	3.31
Grading-Phase 1 - 2018	3.72	15.57	129.22	0.28	8.02	4.00
Drainage/Utilities/Trenching-Phase 1 - 2018	0.57	2.80	24.28	0.04	0.27	0.12
Foundation-Phase 1 - 2018	1.93	17.77	73.80	0.13	1.21	0.50
Drainage/Utilities/Trenching-Phase 2 - 2018	0.44	2.28	19.21	0.03	0.24	0.10
Foundation-Phase 2 - 2018	1.36	8.96	56.85	0.10	0.66	0.29
Foundation-Phase 2 - 2019	1.33	8.82	56.62	0.10	0.66	0.29
Paving-Phase 1 - 2018	0.89	3.76	29.62	0.04	0.37	0.15
Paving-Phase 1 - 2019	0.88	3.66	29.49	0.04	0.36	0.15
Building Construction-Phase 1 - 2018	5.29	11.91	90.95	0.18	6.92	2.19
Building Construction-Phase 1 - 2019	4.87	11.47	87.81	0.17	6.88	2.15
Building Construction-Phase 2 - 2019	3.14	10.49	53.80	0.10	2.76	1.09
Building Construction-Phase 2 - 2020	2.90	10.16	52.83	0.10	2.71	1.04
Architectural Coating-Phase 1 - 2019	55.02	8.80	24.00	0.04	1.37	0.40
Landscaping-Phase 1 - 2019	0.55	7.87	18.62	0.03	0.31	0.11
Paving-Phase 2 - 2020	1.78	2.06	17.80	0.03	0.23	0.10
Landscaping-Phase 2 - 2020	0.24	4.09	7.69	0.01	0.12	0.05
Architectural Coating-Phase 2 - 2020	6.75	4.94	15.73	0.03	0.52	0.17
	63.8983	34.4163	195.1013	0.3594	29.0626	7.3158

WINTER	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
			lb/day			
Demolition (Remove pavement)-Phase 1 - 2018	0.98	6.08	32.91	0.07	21.04	3.31
Grading-Phase 1 - 2018	3.75	15.60	128.97	0.28	8.02	4.00
Drainage/Utilities/Trenching-Phase 1 - 2018	0.58	2.80	24.23	0.04	0.27	0.12
Foundation-Phase 1 - 2018	1.97	17.80	73.84	0.13	1.21	0.51
Drainage/Utilities/Trenching-Phase 2 - 2018	0.45	2.29	19.18	0.03	0.24	0.10
Foundation-Phase 2 - 2018	1.38	8.98	56.75	0.10	0.66	0.29
Foundation-Phase 2 - 2019	1.35	8.84	56.53	0.10	0.66	0.29
Paving-Phase 1 - 2018	0.90	3.77	29.59	0.04	0.37	0.15
Paving-Phase 1 - 2019	0.89	3.66	29.46	0.04	0.36	0.15
Building Construction-Phase 1 - 2018	5.58	12.13	88.43	0.17	6.92	2.19
Building Construction-Phase 1 - 2019	5.14	11.66	85.48	0.17	6.88	2.15
Building Construction-Phase 2 - 2019	3.23	10.56	53.00	0.10	2.76	1.09
Building Construction-Phase 2 - 2020	2.99	10.22	52.09	0.10	2.71	1.04
Architectural Coating-Phase 1 - 2019	55.07	8.84	23.55	0.04	1.37	0.40
Landscaping-Phase 1 - 2019	0.56	7.87	18.55	0.03	0.31	0.11
Paving-Phase 2 - 2020	1.79	2.06	17.77	0.03	0.23	0.10
Landscaping-Phase 2 - 2020	0.24	4.09	7.68	0.01	0.13	0.05
Architectural Coating-Phase 2 - 2020	6.77	4.95	15.59	0.03	0.52	0.17
	64.3348	34.7242	191.4958	0.3525	29.0628	7.316

Daily Maximums with Overlapping Phases	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
			lb/day			
Demolition (Remove pavement)-Phase 1 - 2018 Grading-Phase 1 - 2018	4.68	21.65	162.21	0.35	29.0627	7.3159
Grading-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 1 - 2018	4.29	18.37	153.50	0.33	8.30	4.13
Foundation-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 2 - 2018	2.37	20.05	93.02	0.17	1.44	0.61
Foundation-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	4.18	30.48	160.27	0.28	2.24	0.95
Building Construction-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	7.54	24.63	177.42	0.32	7.95	2.64
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Foundation-Phase 2 - 2019	7.07	23.95	173.92	0.32	7.91	2.60
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	63.8984	34.4165	195.1014	0.3595	11.3777	3.7998
Landscaping-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	58.70	27.16	96.42	0.17	4.44	1.61
Building Construction-Phase 2 - 2020	2.90	10.16	52.83	0.098	2.71	1.04
Paving-Phase 2 - 2020 Landscaping-Phase 2 - 2020 Architectural Coating-Phase 2 - 2020	8.77	11.08	41.21	0.07	0.88	0.31

Daily Maximums with Overlapping Phases	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
			lb/day			
Demolition (Remove pavement)-Phase 1 - 2018 Grading-Phase 1 - 2018	4.73	21.68	161.88	0.35	29.06	7.32
Grading-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 1 - 2018	4.33	18.40	153.21	0.32	8.30	4.13
Foundation-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 2 - 2018	2.42	20.09	93.01	0.16	1.44	0.61
Foundation-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	4.25	30.55	160.17	0.27	2.24	0.95
Building Construction-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	7.86	24.88	174.77	0.31	7.95	2.64
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Foundation-Phase 2 - 2019	7.38	24.16	171.47	0.31	7.91	2.60
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	64.33	34.72	191.50	0.35	11.38	3.80
Landscaping-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	58.86	27.27	95.10	0.17	4.44	1.61
Building Construction-Phase 2 - 2020	2.99	10.22	52.09	0.10	2.71	1.04
Paving-Phase 2 - 2020 Landscaping-Phase 2 - 2020 Architectural Coating-Phase 2 - 2020	8.80	11.10	41.04	0.07	0.88	0.31

Daily Maximums with Overlapping Phases	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
	lb/day					
Demolition (Remove pavement)-Phase 1 - 2018 Grading-Phase 1 - 2018	4.73	21.68	162.21	0.35	29.06	7.32
Grading-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 1 - 2018	4.33	18.40	153.50	0.33	8.30	4.13
Foundation-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 2 - 2018	2.42	20.09	93.02	0.17	1.44	0.61
Foundation-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	4.25	30.55	160.27	0.28	2.24	0.95
Building Construction-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	7.86	24.88	177.42	0.32	7.95	2.64
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Foundation-Phase 2 - 2019	7.38	24.16	173.92	0.32	7.91	2.60
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	64.33	34.72	195.10	0.36	11.38	3.80
Landscaping-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	58.86	27.27	96.42	0.17	4.44	1.61
Building Construction-Phase 2 - 2020	2.99	10.22	52.83	0.10	2.71	1.04
Paving-Phase 2 - 2020 Landscaping-Phase 2 - 2020 Architectural Coating-Phase 2 - 2020	8.80	11.10	41.21	0.07	0.88	0.31
Maximum Daily Value	**64.33**	**34.72**	**195.10**	**0.36**	**29.06**	**7.32**
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Above/(Under)	(10.67)	(65.28)	(354.90)	(149.64)	(120.94)	(47.68)
Exceeds Threshold?	No	No	No	No	No	No

Avion Burbank Project
Construction Analysis
Vendor Truck Idling Activity
On Site Emissions Summary (Localized)

SUMMER	NOx	CO	PM10 Total	PM2.5 Total	WINTER	NOx	CO	PM10 Total	PM2.5 Total
	lb/day					lb/day			
Demolition (Remove pavement)-Phase 1 - 2018	5.25	31.66	20.74	3.23	Demolition (Remove pavement)-Phase 1 - 2018	5.25	31.66	20.74	3.23
Grading-Phase 1 - 2018	14.61	126.03	7.30	3.80	Grading-Phase 1 - 2018	14.61	126.03	7.30	3.80
Drainage/Utilities/Trenching-Phase 1 - 2018	2.01	23.34	0.06	0.06	Drainage/Utilities/Trenching-Phase 1 - 2018	2.01	23.34	0.06	0.06
Foundation-Phase 1 - 2018	9.73	69.48	0.18	0.18	Foundation-Phase 1 - 2018	9.73	69.48	0.18	0.18
Drainage/Utilities/Trenching-Phase 2 - 2018	1.50	18.38	0.05	0.05	Drainage/Utilities/Trenching-Phase 2 - 2018	1.50	18.38	0.05	0.05
Foundation-Phase 2 - 2018	6.80	54.57	0.14	0.14	Foundation-Phase 2 - 2018	6.74	54.56	0.14	0.14
Foundation-Phase 2 - 2019	6.79	54.57	0.14	0.14	Foundation-Phase 2 - 2019	6.79	54.57	0.14	0.14
Paving-Phase 1 - 2018	2.09	28.31	0.06	0.06	Paving-Phase 1 - 2018	2.09	28.31	0.06	0.06
Paving-Phase 1 - 2019	2.09	28.31	0.06	0.06	Paving-Phase 1 - 2019	2.09	28.31	0.06	0.06
Building Construction-Phase 1 - 2018	8.98	62.15	0.43	0.43	Building Construction-Phase 1 - 2018	8.98	62.15	0.43	0.43
Building Construction-Phase 1 - 2019	8.84	62.02	0.40	0.40	Building Construction-Phase 1 - 2019	8.84	62.02	0.40	0.40
Building Construction-Phase 2 - 2019	9.12	44.68	0.47	0.47	Building Construction-Phase 2 - 2019	9.12	44.68	0.47	0.47
Building Construction-Phase 2 - 2020	8.92	44.53	0.42	0.42	Building Construction-Phase 2 - 2020	8.92	44.53	0.42	0.42
Architectural Coating-Phase 1 - 2019	7.72	18.72	0.04	0.04	Architectural Coating-Phase 1 - 2019	7.72	18.72	0.04	0.04
Landscaping-Phase 1 - 2019	7.11	17.55	0.04	0.04	Landscaping-Phase 1 - 2019	7.11	17.55	0.04	0.04
Paving-Phase 2 - 2020	1.41	17.12	0.04	0.04	Paving-Phase 2 - 2020	1.41	17.12	0.04	0.04
Landscaping-Phase 2 - 2020	3.44	7.29	0.02	0.02	Landscaping-Phase 2 - 2020	3.44	7.29	0.02	0.02
Architectural Coating-Phase 2 - 2020	4.18	13.94	0.03	0.03	Architectural Coating-Phase 2 - 2020	4.18	13.94	0.03	0.03
	34.4163	195.1013	29.0626	7.3158		34.7242	191.4958	29.0628	7.316
Daily Maximums with Overlapping Phases	NOx	CO	PM10 Total	PM2.5 Total	**Daily Maximums with Overlapping Phases**	NOx	CO	PM10 Total	PM2.5 Total
	lb/day					lb/day			
Demolition (Remove pavement)-Phase 1 - 2018 Grading-Phase 1 - 2018	19.87	157.69	28.04	7.03	Demolition (Remove pavement)-Phase 1 - 2018 Grading-Phase 1 - 2018	19.87	157.69	28.04	7.03
Grading-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 1 - 2018	16.62	149.38	7.36	3.87	Grading-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 1 - 2018	16.62	149.38	7.36	3.87
Foundation-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 2 - 2018	11.23	87.86	0.22	0.22	Foundation-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 2 - 2018	11.23	87.86	0.22	0.22
Foundation-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	18.62	152.35	0.38	0.38	Foundation-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	18.57	152.35	0.38	0.38
Building Construction-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	17.88	145.02	0.63	0.63	Building Construction-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	17.82	145.01	0.63	0.63
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Foundation-Phase 2 - 2019	17.72	144.89	0.60	0.60	Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Foundation-Phase 2 - 2019	17.72	144.89	0.60	0.60
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	27.77	153.72	0.97	0.97	Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	27.77	153.72	0.97	0.97
Landscaping-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	23.95	80.95	0.55	0.55	Landscaping-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	23.95	80.95	0.55	0.55
Building Construction-Phase 2 - 2020	8.92	44.53	0.42	0.42	Building Construction-Phase 2 - 2020	8.92	44.53	0.42	0.42
Paving-Phase 2 - 2020 Landscaping-Phase 2 - 2020 Architectural Coating-Phase 2 - 2020	9.03	38.35	0.09	0.09	Paving-Phase 2 - 2020 Landscaping-Phase 2 - 2020 Architectural Coating-Phase 2 - 2020	9.03	38.35	0.09	0.09

Note: Localized emissions include the onsite emissions results from CalEEMod, plus the vendor truck idling emissions that are calculated outside of CalEEMod for the Foundation and Paving phases.

Daily Maximums with Overlapping Phases	NOx	CO	PM10 Total	PM2.5 Total
	lb/day			
Demolition (Remove pavement)-Phase 1 - 2018 Grading-Phase 1 - 2018	19.87	157.69	28.04	7.03
Grading-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 1 - 2018	16.62	149.38	7.36	3.87
Foundation-Phase 1 - 2018 Drainage/Utilities/Trenching-Phase 2 - 2018	11.23	87.86	0.22	0.22
Foundation-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	18.62	152.35	0.38	0.38
Building Construction-Phase 1 - 2018 Foundation-Phase 2 - 2018 Paving-Phase 1 - 2018	17.88	145.02	0.63	0.63
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Foundation-Phase 2 - 2019	17.72	144.89	0.60	0.60
Building Construction-Phase 1 - 2019 Paving-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	27.77	153.72	0.97	0.97
Landscaping-Phase 1 - 2019 Architectural Coating-Phase 1 - 2019 Building Construction-Phase 2 - 2019	23.95	80.95	0.55	0.55
Building Construction-Phase 2 - 2020	8.92	44.53	0.42	0.42
Paving-Phase 2 - 2020 Landscaping-Phase 2 - 2020 Architectural Coating-Phase 2 - 2020	9.03	38.35	0.09	0.09
Maximum Daily Value	**27.77**	**157.69**	**28.04**	**7.03**
SCAQMD localized Significance Thresholds	176	2599	56	15
Above/(Under)	(148.23)	(2441.31)	(27.96)	(7.97)
Exceeds Threshold?	No	No	No	No

Vendor Truck Idling Activity

Phase (Vendor Trips)	Start Date	End Date	# of Trucks/day [1]	Idling (hour/day) [2]
Foundation - Phase 1	6/11/2018	11/15/2018	33	5.5
Paving - Phase 1	10/23/2018	8/3/2019	4	0.7
Foundation - Phase 2	10/1/2018	1/10/2019	6	1.0
Paving - Phase 2	7/1/2020	8/26/2020	1	0.2

Notes:

1. Assume only trips going to site and idling onsite.

2. Assume 10-minute idling onsite for each concrete truck. http://www.lafarge-na.com/wps/portal/na/en/3_A_11_1-Calculating_Truck_Requirements.

Idling Emission Factors (lb/vehicle/hr)

	ROG	NOx	CO	SOX	PM10	PM2.5	CO2
2018	6.77E-03	1.61E-01	2.67E-02	2.04E-04	6.00E-04	5.74E-04	2.14E+01
2019	6.37E-03	1.55E-01	2.52E-02	2.07E-04	5.35E-04	5.12E-04	2.17E+01
2020	3.73E-03	1.34E-01	1.48E-02	2.35E-04	7.14E-05	6.83E-05	2.46E+01
Average	**5.62E-03**	**1.50E-01**	**2.22E-02**	**2.16E-04**	**4.02E-04**	**3.85E-04**	**2.26E+01**

Maxmum Daily Idling Emissions (lbs/day)

Summary [1]	ROG	NOx	CO	SOX	PM10	PM2.5	CO2
Foundation - Phase 1: 2018	3.73E-02	8.83E-01	1.47E-01	1.12E-03	3.30E-03	3.16E-03	1.18E+02
Paving - Phase 1: 2018	4.52E-03	1.07E-01	1.78E-02	1.36E-04	4.00E-04	3.83E-04	1.43E+01
Paving - Phase 1: 2019	4.24E-03	1.03E-01	1.68E-02	1.38E-04	3.57E-04	3.41E-04	1.45E+01
Foundation - Phase 2: 2018	6.77E-03	1.61E-01	2.67E-02	2.04E-04	6.00E-04	5.74E-04	2.14E+01
Foundation - Phase 2: 2019	6.37E-03	1.55E-01	2.52E-02	2.07E-04	5.35E-04	5.12E-04	2.17E+01
Paving - Phase 2: 2020	6.22E-04	2.23E-02	2.47E-03	3.92E-05	1.19E-05	1.14E-05	4.11E+00

Notes:

1. LST polluants are CO, Nox, PM10, and PM2.5

APPENDIX B

Project Operational Emissions Worksheets

- Project Operational Assumptions
- Operational CalEEMod Output (Summer)
- Operational CalEEMod Output (Winter)
- Operational AQ Summary

Burbank Avion

Air Quality **Operational Design Features:**

Water and Wastewater: Use project-specific water usage data and default wastewater values in CalEEMod, Project would use water-savi

CalEEMod Water Mitigation Tab: Check boxes for Indoor Water use and Water-Efficient Irrigation Systems, these will account for water-saving plumbing fixtures (indoor) and drip irrigation and drought tolerant plants for landscaping.

Solid Waste: Use project-specific wate generation rate. Project would be designed to include solid waste disposal areas that can accommodate the collection and separation of recyclables and green waste

CalEEMod Waste Mitigation Tab: Apply 50% based on California Waste Diversion Rate and City of Burbank Sustainability Action Plan

Design Features

1 Forklifts used onsite would be electric or CNG;
2 Project would include 142 electric vehicle charging stations;
3 Project will meet Cal Green Tier 1 requirements;
4 Installation of cool roofs in all buildings;
5 Operable windows in the office areas;
6 Skylights and clear story glass in the creative industrial and office to allow for natural lighting during the day;
7 Light-emitting diode (LED) lights in all outdoor areas;
8 Installation of 919 trees for tree shading;
9 Provide users with the ability to use roof-mounted solar systems; and
10 Implement smart grid technology by installing “smart meters”

Avion Burbank Project

Project Trip Generation

Air Quality and Greenhouse Gas Assessment

Project Land Uses	CalEEMod Land Use Type	Rate	Daily Trip Rate	
Creative Office	Commercial/General	per ksf	10.85	<--Use in CalEEMod
High Turnover Rest	Recreational/High Turnover (Sit Down	per ksf	102.21	<--Use in CalEEMod
Retail	Retail/Regional	per ksf	34.29	<--Use in CalEEMod
Industrial Park	Industrial/Industrial Park	per ksf	5.09	<--Use in CalEEMod
Hotel	Recreational/Hotel	per room	7.35	<--Use in CalEEMod

Project Land Uses	CalEEMod Land Use Type	Amount		Daily Trips [1]
Creative Office	Commercial/General Office Building	142.25	ksf	1544
High Turnover Restaurant	Recreational/High Turnover (Sit Down Restaurant)	7.7	ksf	787
Retail	Retail/Regional Shopping Center	7.7	ksf	264
Industrial Park	Industrial/Industrial Park	1014.89	ksf	5169
Hotel	Recreational/Hotel	166	rooms	1220
			Total	**8984**

Notes:

1 Daily Trips include credits (reductions) account for internal capture, transit, biking, and walking to the project site

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Fleet Mix for Industrial Park

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
Default	0.545348	0.04462	0.206559	0.118451	0.015002	0.00625	0.020617	0.031756	0.00256	0.002071	0.005217	0.000696	0.00085	0.968244
Adjusted	0.533922789	0.043685197	0.202231525	0.115969415	0.0146877	0.00612	0.020185	0.052041	0.002506	0.002028	0.0051077	0.0006814	0.00083	0.947959

Industrial park Total Daily Trips	% of truck trips [1]	PCE factor [2]	No. of HHD truck Trips	HHD/total	No. of HHD Trucks
5169	13%	2.5	269	0.052041014	135

Notes:

1 According to ITE 9th edition, on average, truck trips account for 13% of total trips in industrial park; the range is 1% to 31%.

2 According to SGAG 2012 Regional Model,for flat terrain, the passenger car equivalent factor (PCE factor) for HHD is 2.5.

2016 Title 24 Energy Rates

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Nonresidential

% savings over Title 24 (2016)	% savings over Title 24 (2013)
0%	5.0%
5%	9.8%
10%	14.5%
15%	19.3%
20%	24.0%

Residential

% savings over Title 24 (2016)	% savings over Title 24 (2013)
0%	28.0%
5%	31.6%
10%	35.2%
15%	38.8%
20%	42.4%

Project Energy Use Factors Adjustment

Nonresidential % savings over Title 24 (2013) =	5.0%
Residential % savings over Title 24 (2013) =	28.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2013 - CalEEMod Default)					
Project Nonresidential Land Uses					
General Office Building	4.82	4.62	3.88	10.07	0.39
High Turnover Restaurant	8.5	28.16	8.13	43.19	187.78
Hotel	2.68	2.89	2.2	20.02	4.06
Industrial Park	4.82	4.62	3.88	10.07	0.39
Parking Lot	0	0	0.88	0	0
Regional Shopping Center	4.2	3.23	6.43	1.16	0.49
Project Residential Land Uses					
Title 24 (2016)	Values below used in CalEEMod				
Project Nonresidential Land Uses					
General Office Building	4.58	4.62	3.69	9.57	0.39
High Turnover Restaurant	8.08	28.16	7.72	41.03	187.78
Hotel	2.55	2.89	2.09	19.02	4.06
Industrial Park	4.58	4.62	3.69	9.57	0.39
Parking Lot	-	-	0.84	-	-
Regional Shopping Center	3.99	3.23	6.11	1.10	0.49
Project Residential Land Uses					
	-	-	-	-	-

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.1.

California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards, June 10, 2015. Available: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2015-06-10_hearing/2015-06-10_Adoption_Hearing_Presentation.pdf. Accessed December 2016.

Avion Burbank Project

Air Quality and Greenhouse Gas Assessment

OPERATIONAL PROJECT SOLID WASTE GENERATION ESTIMATES

Project Component	Component Details	Generation Rate*	Units of Measure*	Pounds of Solid Waste Generated Per Day	Days per year	Waste (tons/year)	
Creative Industrial	1,014,887 sq ft	1.42	lbs/100 sq ft/day	14,411	312	2,248.12	
Creative Office	142,500 sq ft	0.006	lbs/sq ft/day	855	262	112.01	Per retail component
Retail	15,475 sq ft	0.046	lbs/sq ft/day	712	365	129.94	64.97
Hotel	166 rooms	2	lbs/room/day	332	365	60.59	

Reference:

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Water Supply Assessment:

The change in water demand is 185 AFY: 173 AFY for indoor use (Table 1) and 12 AFY for landscaping (Table 2)

	AFY	Gallons
Office	24	7,820,400
Industrial	91	29,652,350
Retail	1	325,850
Hotel	57	18,573,450
Landscape		3,900,663

Acre-Feet" (AF) equal to 325,850 gallons

Reference:

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Avion Burbank Project
Vegetation

Air Quality and	Amount
BLDG 1	78
BLDG 2	125
BLDG 3	117
BLDG 4	206
BLDG 5	87
BLDG 6	141
Office/Retail	165
	919

Reference:
Preliminary Landscape Plan, page 1

Avion Burbank Project
Air Quality and Greenhouse Gas Assessment

Operational Equipment and California Emissions Estimator Model (CalEEMod) Inputs

Architectural Coating Area Calculations

CalEEMod assumes the total surface for architectural coating equals:		
Residential Coating Area	2.7	times the floor square footage
	75%	interior
	25%	exterior
Nonresidential Coating Area	2	times the square footage
	75%	interior
	25%	exterior
Parking Lot Coating Area	5%	of the square footage
	0%	exterior for surface lot

Source: SCAQMD, CEQA Air Quality Handbook, (1993) A9-124.

Non-Residential Land Uses			
Land Use	**Area (sf)**	**Interior (sf)**	**Exterior (sf)**
phase 1-building	1,172,537	1,758,806	586,269
phase 2-building	101230	151,845	50,615.00
phase 1-parking	1,071,133	50,343.25	-
phase 2-parking	54,640	2,568.08	-
Building Total		**1,910,651**	**636,884**
Parking Total		**52,911.33**	

Avion-Operational

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	142.25	1000sqft	3.27	142,250.00	0
Industrial Park	1,014.89	1000sqft	23.30	1,014,887.00	0
Other Asphalt Surfaces	5.14	Acre	5.14	223,723.00	0
Parking Lot	2,390.00	Space	20.71	902,050.00	0
City Park	7.34	Acre	7.34	319,646.00	0
High Turnover (Sit Down Restaurant)	7.70	1000sqft	0.18	7,700.00	0
Hotel	166.00	Room	1.45	101,230.00	0
Regional Shopping Center	7.70	1000sqft	0.18	7,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2020
Utility Company	Burbank Water & Power				
CO2 Intensity (lb/MWhr)	901.391	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjust to BWP's 2020 Prediction

Land Use - Project Specific

Off-road Equipment -

Vehicle Trips - Project Specific

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Comply with Rule 1113

Energy Use - 2016 Title 24 standards

Water And Wastewater - Water Supply Assessment

Solid Waste - Utility Study

Land Use Change -

Sequestration -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - California Standard

Fleet Mix - Project Specific for Industrial Park

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	67,546.00	0.00
tblArchitecturalCoating	ConstArea_Parking	67,546.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Nonresidential_Exterior	636885	636884
tblAreaCoating	Area_Nonresidential_Interior	1910655	1910651
tblAreaCoating	Area_Parking	67546	52911
tblConstructionPhase	NumDays	75.00	105.00
tblConstructionPhase	NumDays	75.00	77.00
tblConstructionPhase	NumDays	1,110.00	22.00
tblConstructionPhase	NumDays	1,110.00	24.00
tblConstructionPhase	NumDays	1,110.00	26.00

tblConstructionPhase	NumDays	1,110.00	136.00
tblConstructionPhase	NumDays	1,110.00	23.00
tblConstructionPhase	NumDays	1,110.00	88.00
tblConstructionPhase	NumDays	1,110.00	215.00
tblConstructionPhase	NumDays	1,110.00	413.00
tblConstructionPhase	NumDays	70.00	17.00
tblConstructionPhase	NumDays	110.00	51.00
tblConstructionPhase	NumDays	75.00	49.00
tblConstructionPhase	NumDays	75.00	245.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	LightingElect	3.88	3.69
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	3.88	3.69
tblEnergyUse	LightingElect	0.88	0.84
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	T24E	4.82	4.58

tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	4.82	4.58
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	10.07	9.57
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	10.07	9.57
tblEnergyUse	T24NG	1.16	1.10
tblFleetMix	FleetMixLandUseSubType	General Office Building	City Park
tblFleetMix	FleetMixLandUseSubType	Industrial Park	General Office Building
tblFleetMix	FleetMixLandUseSubType	Other Asphalt Surfaces	High Turnover (Sit Down Restaurant)
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Hotel
tblFleetMix	FleetMixLandUseSubType	City Park	Industrial Park
tblFleetMix	FleetMixLandUseSubType	High Turnover (Sit Down Restaurant)	Other Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Hotel	Parking Lot
tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.55	0.53
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.20	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	6.0900e-003	5.9470e-003
tblFleetMix	MCY	5.0050e-003	4.8870e-003
tblFleetMix	MDV	0.12	0.12
tblFleetMix	MH	9.0700e-004	8.8600e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.4380e-003	2.3810e-003
tblFleetMix	SBUS	6.7700e-004	6.6100e-004
tblFleetMix	UBUS	2.3590e-003	2.3030e-003
tblGrading	AcresOfGrading	510.00	61.55

tblGrading	MaterialExported	0.00	261,000.00
tblGrading	MaterialImported	0.00	296,029.00
tblLandUse	BuildingSpaceSquareFeet	1,014,890.00	1,014,887.00
tblLandUse	BuildingSpaceSquareFeet	223,898.40	223,723.00
tblLandUse	BuildingSpaceSquareFeet	956,000.00	902,050.00
tblLandUse	BuildingSpaceSquareFeet	241,032.00	101,230.00
tblLandUse	GreenSpaceSquareFeet	319,730.40	319,646.00
tblLandUse	LandUseSquareFeet	1,014,890.00	1,014,887.00
tblLandUse	LandUseSquareFeet	223,898.40	223,723.00
tblLandUse	LandUseSquareFeet	956,000.00	902,050.00
tblLandUse	LandUseSquareFeet	319,730.40	319,646.00
tblLandUse	LandUseSquareFeet	241,032.00	101,230.00
tblLandUse	LotAcreage	21.51	20.71
tblLandUse	LotAcreage	5.53	1.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00

tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	1096.12	901.391
tblProjectCharacteristics	OperationalYear	2018	2020
tblSequestration	NumberOfNewTrees	0.00	919.00
tblSolidWaste	SolidWasteGenerationRate	132.29	112.01
tblSolidWaste	SolidWasteGenerationRate	91.63	64.97
tblSolidWaste	SolidWasteGenerationRate	90.88	60.59
tblSolidWaste	SolidWasteGenerationRate	1,258.46	2,248.12
tblSolidWaste	SolidWasteGenerationRate	8.09	64.97
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	10.85
tblVehicleTrips	ST_TR	158.37	102.21
tblVehicleTrips	ST_TR	8.19	7.35
tblVehicleTrips	ST_TR	2.49	5.09
tblVehicleTrips	ST_TR	49.97	34.29
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	10.85
tblVehicleTrips	SU_TR	131.84	102.21
tblVehicleTrips	SU_TR	5.95	7.35
tblVehicleTrips	SU_TR	0.73	5.09
tblVehicleTrips	SU_TR	25.24	34.29
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	10.85
tblVehicleTrips	WD_TR	127.15	102.21
tblVehicleTrips	WD_TR	8.17	7.35
tblVehicleTrips	WD_TR	6.83	5.09
tblVehicleTrips	WD_TR	42.70	34.29

tblWater	IndoorWaterUseRate	25,282,625.65	7,820,400.00
tblWater	IndoorWaterUseRate	2,337,209.59	162,925.00
tblWater	IndoorWaterUseRate	4,210,883.82	18,573,450.00
tblWater	IndoorWaterUseRate	234,693,312.50	29,652,350.00
tblWater	IndoorWaterUseRate	570,358.42	162,925.00
tblWater	OutdoorWaterUseRate	8,745,473.11	3,900,663.00
tblWater	OutdoorWaterUseRate	15,495,802.82	0.00
tblWater	OutdoorWaterUseRate	149,183.59	0.00
tblWater	OutdoorWaterUseRate	467,875.98	0.00
tblWater	OutdoorWaterUseRate	349,574.51	0.00

2.0 Emissions Summary

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	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Energy	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107
Mobile	19.1023	110.6402	256.1791	0.8745	64.0768	0.8764	64.9533	17.1571	0.8231	17.9802		89,212.8310	89,212.8310	4.9796		89,337.3221
Total	**46.9210**	**114.8435**	**260.0913**	**0.8997**	**64.0768**	**1.1970**	**65.2738**	**17.1571**	**1.1436**	**18.3007**		**94,253.3122**	**94,253.3122**	**5.0784**	**0.0924**	**94,407.8064**

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	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Energy	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107
Mobile	19.1023	110.6402	256.1791	0.8745	64.0768	0.8764	64.9533	17.1571	0.8231	17.9802		89,212.8310	89,212.8310	4.9796		89,337.3221
Total	**46.9210**	**114.8435**	**260.0913**	**0.8997**	**64.0768**	**1.1970**	**65.2738**	**17.1571**	**1.1436**	**18.3007**		**94,253.3122**	**94,253.3122**	**5.0784**	**0.0924**	**94,407.8064**

	ROG	NOx	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**

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	19.1023	110.6402	256.1791	0.8745	64.0768	0.8764	64.9533	17.1571	0.8231	17.9802		89,212.8310	89,212.8310	4.9796		89,337.3221
Unmitigated	19.1023	110.6402	256.1791	0.8745	64.0768	0.8764	64.9533	17.1571	0.8231	17.9802		89,212.8310	89,212.8310	4.9796		89,337.3221

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	1,543.41	1,543.41	1543.41	4,972,043	4,972,043
High Turnover (Sit Down Restaurant)	787.02	787.02	787.02	1,072,571	1,072,571
Hotel	1,220.10	1,220.10	1220.10	2,911,367	2,911,367
Industrial Park	5,165.79	5,165.79	5165.79	20,543,761	20,543,761
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	264.03	264.03	264.03	571,062	571,062
Total	8,980.35	8,980.35	8,980.35	30,070,805	30,070,805

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down [illegible])	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
General Office Building	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
High Turnover (Sit Down Restaurant)	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Hotel	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Industrial Park	0.534825	0.044367	0.196734	0.119876	0.016223	0.005947	0.018871	0.052041	0.002381	0.002303	0.004887	0.000661	0.000886
Other Asphalt Surfaces	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Parking Lot	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Regional Shopping Center	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907

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	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107
NaturalGas Unmitigated	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107

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					
City Park	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
General Office Building	3881.67	0.0419	0.3806	0.3197	2.2800e-003		0.0289	0.0289		0.0289	0.0289		456.6672	456.6672	8.7500e-003	8.3700e-003	459.3810
High Turnover (Sit Down Restaurant)	4826.95	0.0521	0.4732	0.3975	2.8400e-003		0.0360	0.0360		0.0360	0.0360		567.8766	567.8766	0.0109	0.0104	571.2512
Hotel	6401.06	0.0690	0.6276	0.5272	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.0664	753.0664	0.0144	0.0138	757.5415
Industrial Park	27693.9	0.2987	2.7151	2.2807	0.0163		0.2064	0.2064		0.2064	0.2064		3,258.1062	3,258.1062	0.0625	0.0597	3,277.4675
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	33.5425	3.6000e-004	3.2900e-003	2.7600e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9462	3.9462	8.0000e-005	7.0000e-005	3.9696
Total		**0.4620**	**4.1997**	**3.5278**	**0.0252**		**0.3192**	**0.3192**		**0.3192**	**0.3192**		**5,039.6625**	**5,039.6625**	**0.0966**	**0.0924**	**5,069.6107**

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					
City Park	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
General Office Building	3.88167	0.0419	0.3806	0.3197	2.2800e-003		0.0289	0.0289		0.0289	0.0289		456.6672	456.6672	8.7500e-003	8.3700e-003	459.3810
High Turnover (Sit Down Restaurant)	4.82695	0.0521	0.4732	0.3975	2.8400e-003		0.0360	0.0360		0.0360	0.0360		567.8766	567.8766	0.0109	0.0104	571.2512
Hotel	6.40106	0.0690	0.6276	0.5272	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.0664	753.0664	0.0144	0.0138	757.5415
Industrial Park	27.6939	0.2987	2.7151	2.2807	0.0163		0.2064	0.2064		0.2064	0.2064		3,258.1062	3,258.1062	0.0625	0.0597	3,277.4675
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0335425	3.6000e-004	3.2900e-003	2.7600e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9462	3.9462	8.0000e-005	7.0000e-005	3.9696
Total		**0.4620**	**4.1997**	**3.5278**	**0.0252**		**0.3192**	**0.3192**		**0.3192**	**0.3192**		**5,039.6625**	**5,039.6625**	**0.0966**	**0.0924**	**5,069.6107**

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	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736

Unmitigated	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736

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	1.6847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	25.6358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0362	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Total	**27.3567**	**3.5500e-003**	**0.3844**	**3.0000e-005**		**1.3800e-003**	**1.3800e-003**		**1.3800e-003**	**1.3800e-003**		**0.8187**	**0.8187**	**2.2000e-003**		**0.8736**

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	1.6847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	25.6358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0362	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Total	**27.3567**	**3.5500e-003**	**0.3844**	**3.0000e-005**		**1.3800e-003**	**1.3800e-003**		**1.3800e-003**	**1.3800e-003**		**0.8187**	**0.8187**	**2.2000e-003**		**0.8736**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Avion-Operational

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	142.25	1000sqft	3.27	142,250.00	0
Industrial Park	1,014.89	1000sqft	23.30	1,014,887.00	0
Other Asphalt Surfaces	5.14	Acre	5.14	223,723.00	0
Parking Lot	2,390.00	Space	20.71	902,050.00	0
City Park	7.34	Acre	7.34	319,646.00	0
High Turnover (Sit Down Restaurant)	7.70	1000sqft	0.18	7,700.00	0
Hotel	166.00	Room	1.45	101,230.00	0
Regional Shopping Center	7.70	1000sqft	0.18	7,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2020
Utility Company	Burbank Water & Power				
CO2 Intensity (lb/MWhr)	901.391	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjust to BWP's 2020 Prediction

Land Use - Project Specific

Off-road Equipment -

Vehicle Trips - Project Specific

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Comply with Rule 1113

Energy Use - 2016 Title 24 standards

Water And Wastewater - Water Supply Assessment

Solid Waste - Utility Study

Land Use Change -

Sequestration -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - California Standard

Fleet Mix - Project Specific for Industrial Park

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	67,546.00	0.00
tblArchitecturalCoating	ConstArea_Parking	67,546.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_Nonresidential_Exterior	636885	636884
tblAreaCoating	Area_Nonresidential_Interior	1910655	1910651
tblAreaCoating	Area_Parking	67546	52911
tblConstructionPhase	NumDays	75.00	105.00
tblConstructionPhase	NumDays	75.00	77.00
tblConstructionPhase	NumDays	1,110.00	22.00
tblConstructionPhase	NumDays	1,110.00	24.00
tblConstructionPhase	NumDays	1,110.00	26.00

tblConstructionPhase	NumDays	1,110.00	136.00
tblConstructionPhase	NumDays	1,110.00	23.00
tblConstructionPhase	NumDays	1,110.00	88.00
tblConstructionPhase	NumDays	1,110.00	215.00
tblConstructionPhase	NumDays	1,110.00	413.00
tblConstructionPhase	NumDays	70.00	17.00
tblConstructionPhase	NumDays	110.00	51.00
tblConstructionPhase	NumDays	75.00	49.00
tblConstructionPhase	NumDays	75.00	245.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	LightingElect	3.88	3.69
tblEnergyUse	LightingElect	8.13	7.72
tblEnergyUse	LightingElect	2.20	2.09
tblEnergyUse	LightingElect	3.88	3.69
tblEnergyUse	LightingElect	0.88	0.84
tblEnergyUse	LightingElect	6.43	6.11
tblEnergyUse	T24E	4.82	4.58

tblEnergyUse	T24E	8.50	8.08
tblEnergyUse	T24E	2.68	2.55
tblEnergyUse	T24E	4.82	4.58
tblEnergyUse	T24E	4.20	3.99
tblEnergyUse	T24NG	10.07	9.57
tblEnergyUse	T24NG	43.19	41.03
tblEnergyUse	T24NG	20.02	19.02
tblEnergyUse	T24NG	10.07	9.57
tblEnergyUse	T24NG	1.16	1.10
tblFleetMix	FleetMixLandUseSubType	General Office Building	City Park
tblFleetMix	FleetMixLandUseSubType	Industrial Park	General Office Building
tblFleetMix	FleetMixLandUseSubType	Other Asphalt Surfaces	High Turnover (Sit Down Restaurant)
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Hotel
tblFleetMix	FleetMixLandUseSubType	City Park	Industrial Park
tblFleetMix	FleetMixLandUseSubType	High Turnover (Sit Down Restaurant)	Other Asphalt Surfaces
tblFleetMix	FleetMixLandUseSubType	Hotel	Parking Lot
tblFleetMix	HHD	0.03	0.05
tblFleetMix	LDA	0.55	0.53
tblFleetMix	LDT1	0.05	0.04
tblFleetMix	LDT2	0.20	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	6.0900e-003	5.9470e-003
tblFleetMix	MCY	5.0050e-003	4.8870e-003
tblFleetMix	MDV	0.12	0.12
tblFleetMix	MH	9.0700e-004	8.8600e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.4380e-003	2.3810e-003
tblFleetMix	SBUS	6.7700e-004	6.6100e-004
tblFleetMix	UBUS	2.3590e-003	2.3030e-003
tblGrading	AcresOfGrading	510.00	61.55

tblGrading	MaterialExported	0.00	261,000.00
tblGrading	MaterialImported	0.00	296,029.00
tblLandUse	BuildingSpaceSquareFeet	1,014,890.00	1,014,887.00
tblLandUse	BuildingSpaceSquareFeet	223,898.40	223,723.00
tblLandUse	BuildingSpaceSquareFeet	956,000.00	902,050.00
tblLandUse	BuildingSpaceSquareFeet	241,032.00	101,230.00
tblLandUse	GreenSpaceSquareFeet	319,730.40	319,646.00
tblLandUse	LandUseSquareFeet	1,014,890.00	1,014,887.00
tblLandUse	LandUseSquareFeet	223,898.40	223,723.00
tblLandUse	LandUseSquareFeet	956,000.00	902,050.00
tblLandUse	LandUseSquareFeet	319,730.40	319,646.00
tblLandUse	LandUseSquareFeet	241,032.00	101,230.00
tblLandUse	LotAcreage	21.51	20.71
tblLandUse	LotAcreage	5.53	1.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	6.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
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tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	7.00	10.00

tblOffRoadEquipment	UsageHours	7.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblProjectCharacteristics	CO2IntensityFactor	1096.12	901.391
tblProjectCharacteristics	OperationalYear	2018	2020
tblSequestration	NumberOfNewTrees	0.00	919.00
tblSolidWaste	SolidWasteGenerationRate	132.29	112.01
tblSolidWaste	SolidWasteGenerationRate	91.63	64.97
tblSolidWaste	SolidWasteGenerationRate	90.88	60.59
tblSolidWaste	SolidWasteGenerationRate	1,258.46	2,248.12
tblSolidWaste	SolidWasteGenerationRate	8.09	64.97
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	10.85
tblVehicleTrips	ST_TR	158.37	102.21
tblVehicleTrips	ST_TR	8.19	7.35
tblVehicleTrips	ST_TR	2.49	5.09
tblVehicleTrips	ST_TR	49.97	34.29
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	10.85
tblVehicleTrips	SU_TR	131.84	102.21
tblVehicleTrips	SU_TR	5.95	7.35
tblVehicleTrips	SU_TR	0.73	5.09
tblVehicleTrips	SU_TR	25.24	34.29
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	10.85
tblVehicleTrips	WD_TR	127.15	102.21
tblVehicleTrips	WD_TR	8.17	7.35
tblVehicleTrips	WD_TR	6.83	5.09
tblVehicleTrips	WD_TR	42.70	34.29

tblWater	IndoorWaterUseRate	25,282,625.65	7,820,400.00
tblWater	IndoorWaterUseRate	2,337,209.59	162,925.00
tblWater	IndoorWaterUseRate	4,210,883.82	18,573,450.00
tblWater	IndoorWaterUseRate	234,693,312.50	29,652,350.00
tblWater	IndoorWaterUseRate	570,358.42	162,925.00
tblWater	OutdoorWaterUseRate	8,745,473.11	3,900,663.00
tblWater	OutdoorWaterUseRate	15,495,802.82	0.00
tblWater	OutdoorWaterUseRate	149,183.59	0.00
tblWater	OutdoorWaterUseRate	467,875.98	0.00
tblWater	OutdoorWaterUseRate	349,574.51	0.00

2.0 Emissions Summary

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	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Energy	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107
Mobile	18.6337	113.0830	244.3866	0.8326	64.0768	0.8822	64.9590	17.1571	0.8286	17.9857		84,994.9832	84,994.9832	4.9828		85,119.5526
Total	**46.4523**	**117.2863**	**248.2987**	**0.8578**	**64.0768**	**1.2027**	**65.2795**	**17.1571**	**1.1491**	**18.3062**		**90,035.4645**	**90,035.4645**	**5.0816**	**0.0924**	**90,190.0369**

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	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Energy	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107
Mobile	18.6337	113.0830	244.3866	0.8326	64.0768	0.8822	64.9590	17.1571	0.8286	17.9857		84,994.9832	84,994.9832	4.9828		85,119.5526
Total	**46.4523**	**117.2863**	**248.2987**	**0.8578**	**64.0768**	**1.2027**	**65.2795**	**17.1571**	**1.1491**	**18.3062**		**90,035.4645**	**90,035.4645**	**5.0816**	**0.0924**	**90,190.0369**

	ROG	NOx	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**

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	18.6337	113.0830	244.3866	0.8326	64.0768	0.8822	64.9590	17.1571	0.8286	17.9857		84,994.9832	84,994.9832	4.9828		85,119.5526
Unmitigated	18.6337	113.0830	244.3866	0.8326	64.0768	0.8822	64.9590	17.1571	0.8286	17.9857		84,994.9832	84,994.9832	4.9828		85,119.5526

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	1,543.41	1,543.41	1543.41	4,972,043	4,972,043
High Turnover (Sit Down Restaurant)	787.02	787.02	787.02	1,072,571	1,072,571
Hotel	1,220.10	1,220.10	1220.10	2,911,367	2,911,367
Industrial Park	5,165.79	5,165.79	5165.79	20,543,761	20,543,761
Other Asphalt Surfaces	0.00	0.00	0.00		

Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	264.03	264.03	264.03	571,062	571,062
Total	8,980.35	8,980.35	8,980.35	30,070,805	30,070,805

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
General Office Building	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
High Turnover (Sit Down Restaurant)	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Hotel	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Industrial Park	0.534825	0.044367	0.196734	0.119876	0.016223	0.005947	0.018871	0.052041	0.002381	0.002303	0.004887	0.000661	0.000886
Other Asphalt Surfaces	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Parking Lot	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Regional Shopping Center	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907

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	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107
NaturalGas Unmitigated	0.4620	4.1997	3.5278	0.0252		0.3192	0.3192		0.3192	0.3192		5,039.6625	5,039.6625	0.0966	0.0924	5,069.6107

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					
City Park	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
General Office Building	3881.67	0.0419	0.3806	0.3197	2.2800e-003		0.0289	0.0289		0.0289	0.0289		456.6672	456.6672	8.7500e-003	8.3700e-003	459.3810
High Turnover (Sit Down Restaurant)	4826.95	0.0521	0.4732	0.3975	2.8400e-003		0.0360	0.0360		0.0360	0.0360		567.8766	567.8766	0.0109	0.0104	571.2512
Hotel	6401.06	0.0690	0.6276	0.5272	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.0664	753.0664	0.0144	0.0138	757.5415
Industrial Park	27693.9	0.2987	2.7151	2.2807	0.0163		0.2064	0.2064		0.2064	0.2064		3,258.1062	3,258.1062	0.0625	0.0597	3,277.4675
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	33.5425	3.6000e-004	3.2900e-003	2.7600e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9462	3.9462	8.0000e-005	7.0000e-005	3.9696
Total		**0.4620**	**4.1997**	**3.5278**	**0.0252**		**0.3192**	**0.3192**		**0.3192**	**0.3192**		**5,039.6625**	**5,039.6625**	**0.0966**	**0.0924**	**5,069.6107**

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					
City Park	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
General Office Building	3.88167	0.0419	0.3806	0.3197	2.2800e-003		0.0289	0.0289		0.0289	0.0289		456.6672	456.6672	8.7500e-003	8.3700e-003	459.3810
High Turnover (Sit Down Restaurant)	4.82695	0.0521	0.4732	0.3975	2.8400e-003		0.0360	0.0360		0.0360	0.0360		567.8766	567.8766	0.0109	0.0104	571.2512
Hotel	6.40106	0.0690	0.6276	0.5272	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.0664	753.0664	0.0144	0.0138	757.5415
Industrial Park	27.6939	0.2987	2.7151	2.2807	0.0163		0.2064	0.2064		0.2064	0.2064		3,258.1062	3,258.1062	0.0625	0.0597	3,277.4675
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.0335425	3.6000e-004	3.2900e-003	2.7600e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9462	3.9462	8.0000e-005	7.0000e-005	3.9696
Total		**0.4620**	**4.1997**	**3.5278**	**0.0252**		**0.3192**	**0.3192**		**0.3192**	**0.3192**		**5,039.6625**	**5,039.6625**	**0.0966**	**0.0924**	**5,069.6107**

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	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Unmitigated	27.3567	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736

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	1.6847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	25.6358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0362	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Total	**27.3567**	**3.5500e-003**	**0.3844**	**3.0000e-005**		**1.3800e-003**	**1.3800e-003**		**1.3800e-003**	**1.3800e-003**		**0.8187**	**0.8187**	**2.2000e-003**		**0.8736**

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	1.6847					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	25.6358					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0362	3.5500e-003	0.3844	3.0000e-005		1.3800e-003	1.3800e-003		1.3800e-003	1.3800e-003		0.8187	0.8187	2.2000e-003		0.8736
Total	**27.3567**	**3.5500e-003**	**0.3844**	**3.0000e-005**		**1.3800e-003**	**1.3800e-003**		**1.3800e-003**	**1.3800e-003**		**0.8187**	**0.8187**	**2.2000e-003**		**0.8736**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Avion Burbank Project
Operational Emissions
Regional Emissions (On and Offsite)

Summer (lbs/day)	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	27.357	0.004	0.384	0.000	0.001	0.001
Energy	0.462	4.200	3.528	0.025	0.319	0.319
Mobile	19.102	110.640	256.179	0.875	64.953	17.980
Fireplace	0.001	0.017	0.007	0.000	0.001	0.001
Emergency Generator	0.217	0.456	3.994	0.000	0.230	0.230
Total	**47.14**	**115.32**	**264.09**	**0.90**	**65.50**	**18.53**

Winter (lbs/day)	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	27.357	0.004	0.384	0.000	0.001	0.001
Energy	0.462	4.200	3.528	0.025	0.319	0.319
Mobile	18.634	113.083	244.387	0.833	64.959	17.986
Fireplace	0.001	0.017	0.007	0.000	0.001	0.001
Emergency Generator	0.217	0.456	3.994	0.000	0.230	0.230
Total	**46.67**	**117.76**	**252.30**	**0.86**	**65.51**	**18.54**

Maximum Emissions (lbs/day)	ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Area	27.36	0.00	0.38	0.00	0.00	0.00
Energy	0.46	4.20	3.53	0.03	0.32	0.32
Mobile	19.10	113.08	256.18	0.87	64.96	17.99
Fireplace	0.00097	0.01659	0.00706	0.00011	0.00134	0.00134
Emergency Generator	0.22	0.46	3.99	0.00	0.23	0.23
Maximum Daily Emissions	**47.14**	**117.76**	**264.09**	**0.90**	**65.51**	**18.54**
SCAQMD Significance Thresholds	55	55	550	150	150	55
Over/(Under)	(7.86)	62.76	(285.91)	(149.10)	(84.49)	(36.46)
Exceeds Threshold?	No	Yes	No	No	No	No

Notes:

1. Emissions from Area sources, energy and mobile sources were modeled with CALEEMOD. Fireplace and emergency generator emissions were calculated separately outside CALEEMOD.

Avion Burbank Project
Operational Emissions
Localized Emissions (Excludes Mobile Sources)

Summer (lbs/day)					Winter (lbs/day)			
	NOx	CO	PM10 Total	PM2.5 Total	NOx	CO	PM10 Total	PM2.5 Total
Area	0.00355	0.3844	0.00138	0.00138	0.00355	0.3844	0.00138	0.00138
Energy	4.1997	3.5278	0.3192	0.3192	4.1997	3.5278	0.3192	0.3192
Fireplace	0.01659	0.00706	0.00134	0.00134	0.01659	0.00706	0.00134	0.00134
Truck Idling Emissions	10.5259	1.2629	0.0089	0.0085	10.5259	1.2629	0.0089	0.0085
Emergency Generator	0.46	3.99	0.23	0.23	0.46	3.99	0.23	0.23
Total	**15.20**	**9.18**	**0.56**	**0.56**	**15.20**	**9.18**	**0.56**	**0.56**

Maximum Emissions (lbs/day)				
	NOx	CO	PM10 Total	PM2.5 Total
Area	0.004	0.384	0.001	0.001
Energy	4.200	3.528	0.319	0.319
Fireplace	0.017	0.007	0.001	0.001
Truck Idling Emissions	10.526	1.263	0.009	0.009
Emergency Generator	0.456	3.994	0.230	0.230
Maximum Daily Emissions	**15.20**	**9.18**	**0.56**	**0.56**
SCAQMD LST Significance Thresholds	98	2599	14	4
Over/(Under)	(82.58)	(2589.82)	(13.44)	(3.44)
Exceeds Threshold?	No	No	No	No

Notes:

1. Emissions from Area sources and energy were modeled with CALEEMOD. Fireplace, truck idling at loading docks, and emergency generator emissions were calculated separately outside CALEEMOD.

2 The SCAQMD LSTs are based on Source Receptor Area 7 (East San Fernando Valley) for a 5-acre site within a 100-meter receptor distance for construction activities. The LST for NOx is adjusted based on the federal NAAQS 1-hour standard (accounted for the standard change from 180 ppb to 100 ppb.

SOURCE: ESA, 2017

Avion Burbank Project
Operational Emissions

Emergency Generator Emissions

Hotel Standby Emergency Generator

Ratings:	350	kW	*(Assumed power rating based on number of hotel rooms)*
	469	HP	*(conversion from kW to hp)*
Load Factor:	0.74		*(based on CalEEMod Generator Set Load Factor)*
Engine Emissions Tier:	Tier 4		*(compliance with CARB diesel regulations)*
Operating Hours per Unit:	2	hours/day	*(testing/maintenance)*
	50	hours/year	*(testing/maintenance, Regulatory Limit per SCAQMD Rule 1470)*

Emergency Generator Emissions

Units	Criteria Pollutants [1, 2, 3]					
	VOC	NO_X	CO	SOx	PM10	PM2.5
g/kW-hr	0.19	0.40	3.50	—	—	—
g/HP-hr	0.14	0.30	2.61	5.50E-05	0.1500	0.1500
lbs/hr	0.11	0.23	2.00	0.00	0.11	0.11
lbs/day	0.22	0.46	3.99	0.00	0.23	0.23
lbs/yr	5.42	11.41	99.85	0.00	5.74	5.74
tons/yr	0.00	0.01	0.05	0.00	0.00	0.00
metric tons/yr	—	—	—	—	—	—

Notes:

1. Emission factors for VOC and NOX: Assumes Tier 4 compliance (Section 2423, Article 4, Chapter 9, Division 3, Title 13, California Code of Regulations (CCR)).

2. Emission factors for CO, PM10, and PM2.5: Regulatory Limit per SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other

3. Emission factor for SO_2: U.S. Environmental Protection Agency, *AP-42 Compilation of Air Pollutant Emission Factors* , Fifth Edition, Section 3.4, Table 3.4-1. Emission Factor for SO_2 is based on 15 ppm (0.0015%) S1 from the EPA Nonroad Diesel Fuel Program, and assumes complete conversion to SO_2.

Source: ESA 2017.

Avion Burbank Project
Operational Emissions updated: 10/6/2017
Fireplace Emissions

60000	BTU/hr - CALEEMOD default
3	hrs/day - CALEEMOD default
180	days/yr
0.18	MMBTU/day
32.4	MMBTU/yr
1020	mmBTU/mmscf - CALEEMOD default
0.0001765	mmscf/day
0.0317647	mmscf/yr

Emission Calculations

	VOC	NOx	CO	SO_2	PM
lbs/mmscf	5.5	94	40	0.6	7.6
lbs/day	9.71E-04	1.66E-02	7.06E-03	1.06E-04	1.34E-03
lbs/yr	0.17	2.99	1.27	0.02	0.24

Notes:

1. Emission factors for criteria pollutants are SCAQMD AER default emission factors for natural gas combustion.

Operational Emissions updated:

Truck Idling Emissions

25 minutes per day - daily idling time used by EMFAC 2014
135 # of Trucks round-trips per Day
15 minutes idling per truck round-trip assume for this Project

2014 EMFAC (v1.0.7) Emission Rates for HHD

CO	NO_X	PM_{10}	$PM_{2.5}$
g/vehicle/day			
7.07	58.95	0.05	0.05
lb/vehicle/minute			
6.24E-04	5.20E-03	4.41E-06	4.22E-06

Truck idling emissions (lbs/day)

CO	NO_X	PM_{10}	$PM_{2.5}$
1.262868812	10.52590364	0.008931138	0.008544781

Notes:

1. Adding truck idling emissions to the localized significance analysis because the mobile emissions from CALEEMOD run was excluded.

2. EMFAC Model selections:

EMFAC2014 (v1.0.7) Emission Rates

Region Type: Air Basin

Region: South Coast

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2007 Categories, to be consistent with CALEEMOD.

Units: g/mile for RUNEX, g/vehicle/day for IDLEX

Avion Burbank

CO Hot Spot Analysis for Future Conditions (2024) with Project

Daily Maximum Volume
67130

Highlighted Intersections had Level of Service (LOS) of D, E, or F under Future plus Project Conditions

Int #	N/S St	E/W St	AM														
			SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Sum	Max	Max Day
1	N Hollywood Way	I-5 NB Ramps	152	886	0	69	0	498	0	440	463	0	0	0	2508	6539	65390
2	N Hollywood Way	I-5 SB Ramps	0	1384	0	0	0	0	0	732	0	1295	0	176	3587		
3	N Hollywood Way	Tulare Ave	244	2594	23	3	0	5	4	1020	234	91	0	132	4350		
4	N Hollywood Way	Winona Ave	75	2280	265	53	44	84	93	1229	137	152	24	44	4480		
5	N Hollywood Way	Thornton Ave	133	2095	254	111	52	126	205	1293	53	37	8	66	4433		
6	N Hollywood Way	N Avon St	34	2279	116	157	27	21	51	1319	78	67	7	97	4253		
7	N Hollywood Way	W Victory Blvd	197	1341	237	157	541	92	90	1027	95	215	1014	294	5300		
8	N Hollywood Way	Burbank Blvd	84	1430	181	77	512	209	85	898	62	71	684	174	4467		
9	N Hollywood Way	Magnolia Blvd	118	1581	238	121	520	172	85	843	103	152	612	143	4688		
10	N Hollywood Way	Verdugo Ave	183	1619	98	46	353	176	49	807	33	116	395	200	4075		
11	N Hollywood Way	W Alameda Ave	489	1285	260	362	1062	190	89	388	106	109	744	172	5256		
12	N Hollywood Way	Riverside Dr	376	889	333	105	349	16	6	405	31	148	395	66	3119		
13	N Hollywood Way	W Olive Ave	477	360	76	60	1329	223	26	51	10	109	1616	365	4702		
14	Pass Ave	SR-134 EB Off-Ramp	0	973	0	0	0	0	0	304	0	1260	0	181	2718		
15	SR-134 Ramps/N Cordova St	W Alameda Ave	6	0	0	1	745	90	276	3	864	125	984	8	3102		
16	N Buena Vista St	N Glenoaks Blvd	11	173	34	8	596	105	87	122	134	119	1101	18	2508		
17	N Buena Vista St	I-5 NB Ramps	80	483	0	0	0	0	0	271	302	358	0	285	1779		
18	N Buena Vista St	Winona Ave	292	511	35	50	93	281	244	468	108	423	62	55	2622		
19	N Buena Vista St	N San Fernando Blvd	155	907	177	140	654	192	72	603	61	84	608	83	3736		
20	N Buena Vista St	Thorton Ave	255	919	139	21	56	9	7	583	43	99	49	165	2345		
21	N Buena Vista St	W Empire Ave	59	823	144	43	309	147	313	512	156	222	348	57	3133		
22	N Buena Vista St	W Victory Blvd	75	1227	385	234	552	99	47	669	188	329	799	142	4746		
23	N Buena Vista St	Burbank Blvd	101	1433	176	87	489	171	87	778	192	305	590	103	4512		
24	N Buena Vista St	Magnolia Blvd	97	1605	317	195	626	247	127	673	133	188	691	96	4995		
25	N Buena Vista St	W Olive Ave	521	1245	131	103	964	129	109	463	127	293	800	178	5063		
26	S Buena Vista St	W Alameda Ave	348	698	426	141	974	190	258	390	344	142	866	177	4954		
27	S Buena Vista St	SR-134 WB Ramps/Riverside Dr	404	394	183	66	383	26	341	948	544	2	803	99	4193		
28	N Hollywood Way NB Off-Ramp	N San Fernando Blvd	0	0	0	0	353	12	80	0	164	316	923	0	1848		
29	N Hollywood Way NB	San Fernando Rd WB Ramps	0	0	0	271	0	0	189	969	0	0	0	0	1429		
30	N Hollywood Way SB	N San Fernando Blvd EB Ramps	368	2533	0	0	0	0	0	0	0	336	0	0	3237		
31	N Hollywood Way SB Ramps	N San Fernando Blvd	0	0	0	0	407	35	62	0	241	262	1004	0	2011		
32	N San Fernando Blvd	Cohasset St	64	1185	0	0	0	0	0	329	272	149	0	13	2012		
33	Kenwood St	Cohasset St	0	0	0	0	128	209	50	0	2	1	116	0	506		
34	San Fernando Blvd	I-5 SB Ramps	0	126	346	48	0	430	263	171	0	0	0	0	1384		
35	N San Fernando Blvd	Winova	192	604	0	0	0	0	0	324	180	41	0	36	1377		
36	N Ontario St	Winona Ave	50	75	6	12	89	15	16	31	25	169	121	18	627		
37	N Ontario St	Thornton Ave	21	245	13	28	163	157	37	53	123	176	116	22	1154		
38	N Ontario St	W Empire Ave	109	0	74	190	336	11	0	0	1	0	405	165	1291		
39	N Avon St	W Empire Ave	2	0	221	127	126	0	0	0	0	0	570	66	1112		
40	N Hollywood Way	W Empire Ave	165	0	119	0	128	0	0	0	0	0	516	0	928		
41	I-5 SB Ramps	W Empire Ave	87	0	230	0	988	230	0	0	0	557	369	0	2461		
42	I-5 NB Ramps	N San Fernando Blvd	0	0	0	170	532	0	110	10	686	0	569	30	2107		
43	N Victory Pl	W Burbank Blvd	49	456	523	556	1319	451	118	270	242	397	1328	39	5748		
44	I-5 SB Off-Ramp/N Front St	E Burbank Blvd	364	113	385	0	1825	262	8	0	223	565	1511	0	5256		

Int #	N/S St	E/W St	AM											
			SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	
45	I-5 NB Off-Ramp	W Burbank Blvd	0	0	0	205	1564	0	481	10	953	0	1163	112	4488
46	Airport	W Empire Ave	71	1	19	12	295	0	0	0	0	2	555	106	1061
47	Clybourn Ave	Vanowen St	355	0	33	14	365	0	0	0	0	0	1259	630	2656
48	Vineland Ave	Vanowen St	121	1223	372	180	548	68	161	685	105	155	1304	118	5040
49	Vineland Ave	Victory Blvd	84	1159	237	152	604	109	122	647	83	152	1201	115	4665
50	N Glenoaks Blvd	Cohasset St	79	1163	23	4	2	6	42	632	229	387	21	25	2613
51	N Glenoaks Blvd	Tulare Ave	See Tab "Intersection 51_Glenoaks_Keystone_Tulare"												2079
52	N Glenoaks Blvd	Winowa Ave/Irving Dr	1	1113	40	39	38	9	9	628	154	214	45	3	2293
53	Scott Rd	Glenoaks Blvd/Peyton Ave	See Tab "Intersection 53_Glenoaks_Scott_Peyton_Eton"												3902
54	Burbank Blvd	Victory Blvd	11	0	1042	763	738	0	4	0	0	4	746	0	3308
55	Buenna Vista St	Verdugo Ave	149	1815	157	113	421	69	50	632	60	191	426	88	4171
56	San Fernando Rd	Strathern St/Clybourn Ave	160	804	0	445	53	26	0	161	270	81	336	8	2344
57	Sunland Bl	San Fernando Rd	57	989	325	78	125	24	34	860	29	119	586	122	3348
58	Vineland Ave	Strathern St	121	946	70	67	190	111	78	813	113	161	384	188	3242
59	Tujunga Ave	Vanowen St	128	623	201	118	640	43	88	398	86	114	1327	104	3870
60	Olive Ave	Pass Ave	34	1532	0	0	0	0	0	2591	235	744	0	93	5229
61	Barham Blvd	Forest Lawn Dr	200	1533	311	175	148	529	799	2686	68	23	26	41	6539

Avion Burbank
CO Hot Spot Analysis for Future Conditions (2024) with Project

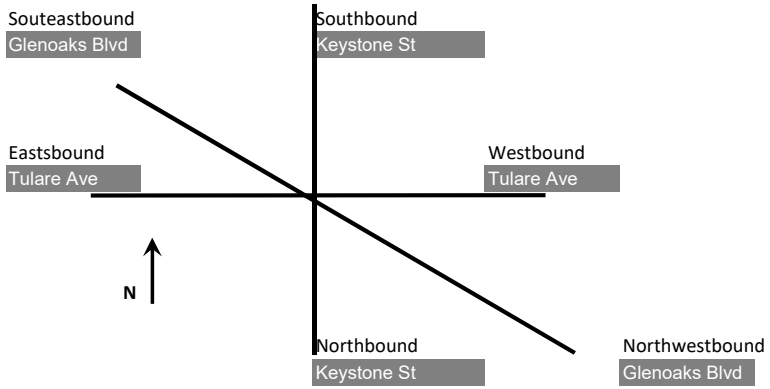
Int #	N/S St	E/W St	PM													
			SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Sum	Max	Max Day
1	N Hollywood Way	I-5 NB Ramps	160	355	0	190	1	239	0	711	1094	0	0	0	2750	6713	67130
2	N Hollywood Way	I-5 SB Ramps	0	608	0	0	0	0	0	1792	0	742	0	67	3209		
3	N Hollywood Way	Tulare Ave	147	1330	6	16	0	13	2	2196	125	243	0	340	4418		
4	N Hollywood Way	Winona Ave	33	1557	64	278	46	122	51	1938	113	188	26	75	4491		
5	N Hollywood Way	Thornton Ave	41	1681	146	293	78	191	111	1683	20	12	9	97	4362		
6	N Hollywood Way	N Avon St	40	2053	64	185	30	66	30	1551	99	82	6	117	4323		
7	N Hollywood Way	W Victory Blvd	403	1111	216	157	927	84	94	1213	197	103	826	247	5578		
8	N Hollywood Way	Burbank Blvd	157	934	148	114	791	164	138	1203	102	36	761	185	4733		
9	N Hollywood Way	Magnolia Blvd	202	843	208	201	879	153	162	1223	185	110	760	172	5098		
10	N Hollywood Way	Verdugo Ave	154	840	55	59	513	98	114	1299	108	61	729	263	4293		
11	N Hollywood Way	W Alameda Ave	381	553	142	549	1248	52	431	867	364	99	1054	224	5964		
12	N Hollywood Way	Riverside Dr	232	354	108	446	563	12	19	1126	111	21	524	130	3646		
13	N Hollywood Way	W Olive Ave	317	52	36	62	1474	46	178	498	49	7	1359	550	4628		
14	Pass Ave	SR-134 EB Off-Ramp	0	424	0	0	0	0	0	698	0	875	0	544	2541		
15	SR-134 Ramps/N Cordova St	W Alameda Ave	10	0	0	26	1389	132	40	2	494	607	1014	6	3720		
16	N Buena Vista St	N Glenoaks Blvd	15	99	21	21	831	101	100	184	257	126	873	24	2652		
17	N Buena Vista St	I-5 NB Ramps	101	530	0	0	0	0	0	558	603	234	0	210	2236		
18	N Buena Vista St	Winona Ave	226	512	20	31	38	189	241	1062	132	341	68	76	2936		
19	N Buena Vista St	N San Fernando Blvd	139	686	215	351	489	135	105	968	67	67	766	124	4112		
20	N Buena Vista St	Thorton Ave	183	765	133	42	51	18	13	937	62	73	12	220	2509		
21	N Buena Vista St	W Empire Ave	61	639	169	136	274	382	459	841	150	222	444	80	3857		
22	N Buena Vista St	W Victory Blvd	138	979	295	238	810	118	93	1022	257	148	752	208	5058		
23	N Buena Vista St	Burbank Blvd	192	926	181	133	689	111	135	1200	234	159	762	175	4897		
24	N Buena Vista St	Magnolia Blvd	152	760	249	213	885	126	195	1270	198	111	881	145	5185		
25	N Buena Vista St	W Olive Ave	214	636	120	126	837	108	159	1044	261	156	1020	468	5149		
26	S Buena Vista St	W Alameda Ave	97	484	318	255	681	271	162	734	195	266	1429	303	5195		
27	S Buena Vista St	SR-134 WB Ramps/Riverside Dr	530	414	116	244	898	91	75	669	114	1	924	110	4186		
28	N Hollywood Way NB Off-Ramp	N San Fernando Blvd	0	0	0	0	644	35	61	0	157	326	520	0	1743		
29	N Hollywood Way NB	San Fernando Rd WB Ramps	0	0	0	428	0	0	231	2332	0	0	0	0	2991		
30	N Hollywood Way SB	N San Fernando Blvd EB Ramps	181	1222	0	0	0	0	0	0	0	265	0	0	1668		
31	N Hollywood Way SB Ramps	N San Fernando Blvd	0	0	0	0	724	50	26	0	187	254	658	0	1899		
32	N San Fernando Blvd	Cohasset St	24	550	0	0	0	0	0	736	163	342	0	75	1890		
33	Kenwood St	Cohasset St	0	0	0	0	105	84	259	0	5	2	132	0	587		
34	San Fernando Blvd	I-5 SB Ramps	0	126	315	39	0	406	511	128	0	0	0	0	1525		
35	N San Fernando Blvd	Winova	25	482	0	0	0	0	0	471	103	91	0	68	1240		
36	N Ontario St	Winona Ave	58	24	6	15	167	8	11	78	105	39	86	17	614		
37	N Ontario St	Thornton Ave	29	70	5	28	184	35	127	181	160	117	113	15	1064		
38	N Ontario St	W Empire Ave	166	0	193	105	385	1	2	1	0	0	523	78	1454		
39	N Avon St	W Empire Ave	6	0	108	283	481	0	0	0	0	0	325	25	1228		
40	N Hollywood Way	W Empire Ave	304	0	122	0	485	0	0	0	0	0	226	0	1137		
41	I-5 SB Ramps	W Empire Ave	43	0	240	0	1269	150	0	0	0	1062	741	0	3505		
42	I-5 NB Ramps	N San Fernando Blvd	0	0	0	340	525	0	270	10	894	0	921	60	3020		
43	N Victory Pl	W Burbank Blvd	145	507	732	544	1341	302	256	539	479	327	1416	125	6713		
44	I-5 SB Off-Ramp/N Front St	E Burbank Blvd	340	74	664	0	1644	181	40	0	289	460	2027	0	5719		

Int #	N/S St	E/W St	PM											
			SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	
45	I-5 NB Off-Ramp	W Burbank Blvd	0	0	0	377	1426	0	711	10	654	0	1955	450	5583
46	Airport	W Empire Ave	72	1	1	3	768	0	0	0	0	2	295	81	1223
47	Clybourn Ave	Vanowen St	759	0	16	23	771	0	0	0	0	0	686	336	2591
48	Vineland Ave	Vanowen St	160	892	247	356	1054	145	105	1076	114	127	772	96	5144
49	Vineland Ave	Victory Blvd	120	820	170	250	1181	170	153	917	138	98	872	118	5007
50	N Glenoaks Blvd	Cohasset St	49	718	19	35	26	52	48	1118	186	421	11	93	2776
51	N Glenoaks Blvd	Tulare Ave	See Tab "Intersection 51_Glenoaks_Keystone_Tulare"												2164
52	N Glenoaks Blvd	Winowa Ave/Irving Dr	3	942	22	26	35	17	14	977	135	347	42	4	2564
53	Scott Rd	Glenoaks Blvd/Peyton Ave	See Tab "Intersection 53_Glenoaks_Scott_Peyton_Eton"												3927
54	Burbank Blvd	Victory Blvd	5	0	908	1071	741	0	2	0	0	0	954	0	3681
55	Buenna Vista St	Verdugo Ave	138	736	102	132	470	20	77	1483	228	103	624	150	4263
56	San Fernando Rd	Strathern St/Clybourn Ave	130	219	0	351	161	32	0	472	476	41	119	7	2008
57	Sunland Bl	San Fernando Rd	90	1149	162	211	377	42	15	934	48	142	209	114	3493
58	Vineland Ave	Strathern St	230	1054	58	50	257	75	62	968	140	137	159	178	3368
59	Tujunga Ave	Vanowen St	143	416	145	188	1121	125	62	599	105	111	869	118	4002
60	Olive Ave	Pass Ave	105	2224	0	0	0	0	0	1872	490	404	0	33	5128
61	Barham Blvd	Forest Lawn Dr	67	2285	248	344	21	686	1006	1656	20	49	188	94	6664

Avion Burbank
CO Hot Spot Analysis for Future Conditions (2024) with Project

Int #	N/S St	E/W St	Weekend													
			SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Sum	Max	Max Day
1	N Hollywood Way	I-5 NB Ramps	104	399	0	104	0	312	0	527	791	0	0	0	2237	6602	66020
2	N Hollywood Way	I-5 SB Ramps	0	711	0	0	0	0	0	1222	0	641	0	102	2676		
3	N Hollywood Way	Tulare Ave	140	1418	3	3	0	2	2	1337	117	126	0	181	3329		
4	N Hollywood Way	Winona Ave	45	1395	81	70	43	29	33	1322	125	155	23	47	3368		
5	N Hollywood Way	Thornton Ave	132	1244	207	221	17	66	91	1147	20	11	4	127	3287		
6	N Hollywood Way	N Avon St	31	1512	43	135	27	3	3	1000	95	67	3	116	3035		
7	N Hollywood Way	W Victory Blvd	194	798	153	148	720	73	90	794	119	87	652	181	4009		
8	N Hollywood Way	Burbank Blvd	95	734	106	88	580	145	130	751	63	58	585	178	3513		
9	N Hollywood Way	Magnolia Blvd	140	713	215	212	644	202	225	728	148	112	652	142	4133		
10	N Hollywood Way	Verdugo Ave	116	878	69	63	270	125	61	741	39	64	425	218	3069		
11	N Hollywood Way	W Alameda Ave	167	572	101	270	640	76	89	382	127	58	457	165	3104		
12	N Hollywood Way	Riverside Dr	325	345	44	112	216	12	3	395	36	32	167	107	1794		
13	N Hollywood Way	W Olive Ave	328	27	12	36	758	31	21	41	3	5	829	361	2452		
14	Pass Ave	SR-134 EB Off-Ramp	0	423	0	0	0	0	0	373	0	431	0	313	1540		
15	SR-134 Ramps/N Cordova St	W Alameda Ave	4	0	0	4	581	56	51	4	463	130	508	5	1806		
16	N Buena Vista St	N Glenoaks Blvd	6	154	19	14	525	113	75	162	223	121	1110	15	2537		
17	N Buena Vista St	I-5 NB Ramps	76	318	0	0	0	0	0	304	340	454	0	180	1672		
18	N Buena Vista St	Winona Ave	142	600	30	42	58	216	275	556	210	179	97	45	2450		
19	N Buena Vista St	N San Fernando Blvd	168	821	6	229	190	36	18	714	33	51	341	99	2706		
20	N Buena Vista St	Thorton Ave	177	614	98	27	56	5	7	599	40	57	116	141	1937		
21	N Buena Vista St	W Empire Ave	12	197	62	205	280	470	530	423	96	133	233	47	2688		
22	N Buena Vista St	W Victory Blvd	101	581	250	218	630	141	91	643	184	117	630	147	3733		
23	N Buena Vista St	Burbank Blvd	122	673	95	98	523	178	114	747	169	117	599	142	3577		
24	N Buena Vista St	Magnolia Blvd	146	610	172	127	781	134	178	694	152	134	714	140	3982		
25	N Buena Vista St	W Olive Ave	235	605	82	54	597	92	203	630	88	58	635	225	3504		
26	S Buena Vista St	W Alameda Ave	61	502	182	154	375	138	87	488	67	90	631	244	3019		
27	S Buena Vista St	SR-134 WB Ramps/Riverside Dr	360	339	47	73	347	38	139	509	96	2	312	69	2331		
28	N Hollywood Way NB Off-Ramp	N San Fernando Blvd	0	0	0	0	738	288	16	0	111	152	387	0	1692		
29	N Hollywood Way NB	San Fernando Rd WB Ramps	0	0	0	483	0	0	112	1393	0	0	0	0	1988		
30	N Hollywood Way SB	N San Fernando Blvd EB Ramps	171	1355	0	0	0	0	0	0	0	195	0	0	1721		
31	N Hollywood Way SB Ramps	N San Fernando Blvd	0	0	0	0	804	50	65	0	105	159	456	0	1639		
32	N San Fernando Blvd	Cohasset St	20	428	0	0	0	0	0	715	146	160	0	25	1494		
33	Kenwood St	Cohasset St	0	0	0	0	105	73	111	0	5	1	92	1	388		
34	San Fernando Blvd	I-5 SB Ramps	0	75	205	25	0	247	327	84	0	0	0	0	963		
35	N San Fernando Blvd	Winova	110	415	0	0	0	0	0	347	83	25	0	51	1031		
36	N Ontario St	Winona Ave	16	22	3	1	95	2	3	20	15	25	75	9	286		
37	N Ontario St	Thornton Ave	25	30	7	18	158	5	8	17	79	69	151	6	573		
38	N Ontario St	W Empire Ave	33	0	70	82	301	1	0	0	0	0	297	19	803		
39	N Avon St	W Empire Ave	3	0	66	111	217	0	0	0	0	0	237	35	669		
40	N Hollywood Way	W Empire Ave	214	0	84	0	205	0	0	0	0	0	189	0	692		
41	I-5 SB Ramps	W Empire Ave	83	0	410	0	1495	190	0	0	0	772	781	0	3731		
42	I-5 NB Ramps	N San Fernando Blvd	0	0	0	150	705	0	250	10	900	0	1011	20	3046		
43	N Victory Pl	W Burbank Blvd	144	431	921	887	1257	324	256	514	360	262	1112	134	6602		
44	I-5 SB Off-Ramp/N Front St	E Burbank Blvd	406	24	646	0	1951	224	77	0	166	336	2105	0	5935		

Int #	N/S St	E/W St	Weekend											
			SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	
45	I-5 NB Off-Ramp	W Burbank Blvd	0	0	0	297	1899	0	665	0	663	0	1990	330	5844
46	Airport	W Empire Ave	51	1	1	4	423	0	0	0	0	1	232	66	779
47	Clybourn Ave	Vanowen St	432	0	21	12	363	0	0	0	0	0	538	288	1654
48	Vineland Ave	Vanowen St	157	698	201	200	566	113	121	741	106	128	612	134	3777
49	Vineland Ave	Victory Blvd	159	627	176	198	841	115	129	661	119	100	653	136	3914
50	N Glenoaks Blvd	Cohasset St	83	1289	13	1	1	5	34	612	206	362	13	27	2646
51	N Glenoaks Blvd	Tulare Ave	See Tab "Intersection 51_Glenoaks_Keystone_Tulare"												1731
52	N Glenoaks Blvd	Winowa Ave/Irving Dr	5	660	17	28	24	18	18	715	84	337	14	5	1925
53	Scott Rd	Glenoaks Blvd/Peyton Ave	See Tab "Intersection 53_Glenoaks_Scott_Peyton_Eton"												3116
54	Burbank Blvd	Victory Blvd	11	0	811	872	743	0	0	0	0	0	688	0	3125
55	Buenna Vista St	Verdugo Ave	98	757	80	97	251	50	54	788	88	86	260	138	2747
56	San Fernando Rd	Strathern St/Clybourn Ave	85	157	0	228	60	16	0	221	264	31	91	7	1160
57	Sunland Bl	San Fernando Rd	56	930	121	106	155	40	16	831	46	114	140	114	2669
58	Vineland Ave	Strathern St	163	859	50	55	131	41	32	789	99	120	121	205	2665
59	Tujunga Ave	Vanowen St	97	303	101	111	733	86	58	320	68	64	700	75	2716
60	Olive Ave	Pass Ave	39	993	0	0	0	0	0	1162	235	297	0	21	2747
61	Barham Blvd	Forest Lawn Dr	11	1177	99	190	6	705	755	1153	2	9	18	9	4134

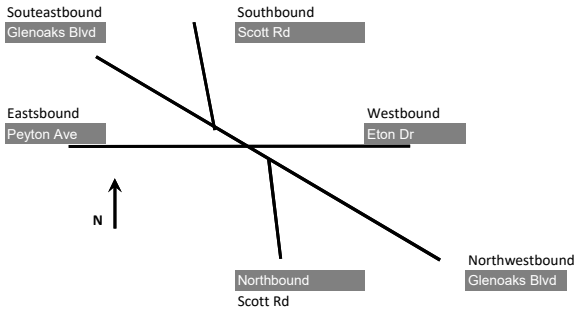


Intersection 51 - Glenoaks Blvd/Keystone St/Tulare Ave

		AM											
		Existing			Existing plus Project			Future Base			Future plus Project		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Souteastbound	Glenoaks Blvd	53	1134	14	53	1138	14	55	1116	15	55	1121	15
Southbound	Keystone St	21	5	8	21	5	8	22	5	8	22	5	8
Westbound	Tulare Ave	1	14	33	1	14	33	1	14	34	1	14	34
Northwestbound	Glenoaks Blve	27	594	14	27	612	14	28	618	14	28	636	14
Northbound	Keystone St	20	1	11	20	1	11	21	1	11	21	1	11
Eastbound	Tulare Ave	2	27	60	2	27	60	2	28	63	2	28	63

		PM											
		Existing			Existing plus Project			Future Base			Future plus Project		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Souteastbound	Glenoaks Blvd	49	895	26	49	916	26	51	911	27	51	932	27
Southbound	Keystone St	19	6	5	19	6	5	20	6	5	20	6	5
Westbound	Tulare Ave	4	17	31	4	17	31	4	17	33	4	17	33
Northwestbound	Glenoaks Blve	21	901	29	21	908	29	22	898	30	22	905	30
Northbound	Keystone St	9	4	6	9	4	6	9	4	6	9	4	6
Eastbound	Tulare Ave	4	33	51	4	33	51	4	35	54	4	35	54

		Weekend Midday											
		Existing			Existing plus Project			Future Base			Future plus Project		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Souteastbound	Glenoaks Blvd	50	716	38	50	725	38	53	729	40	53	738	40
Southbound	Keystone St	19	3	7	19	3	7	20	3	7	20	3	7
Westbound	Tulare Ave	4	0	47	4	0	47	4	0	49	4	0	49
Northwestbound	Glenoaks Blve	37	662	17	37	668	17	39	679	18	39	685	18
Northbound	Keystone St	12	1	11	12	1	11	13	1	12	13	1	12
Eastbound	Tulare Ave	2	0	45	2	0	45	2	0	47	2	0	47



Intersection 53 - Glenoaks Blvd/Scott Rd/Peyton Ave/Eton Dr

		AM											
		Existing			Existing plus Project			Future Base			Future plus Project		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Souteastbound	Glenoaks Blvd	29	1589	324	29	1597	324	23	1663	364	23	1671	364
Southbound	Keystone St	299	0	12	299	0	12	317	0	13	317	0	13
Westbound	Tulare Ave	82	16	30	82	16	30	77	19	30	77	19	30
Northwestbound	Glenoaks Blve	42	812	162	42	845	162	48	858	163	48	891	163
Northbound	Keystone St	102	0	10	102	0	10	113	0	6	113	0	6
Eastbound	Tulare Ave	9	22	124	9	22	124	11	25	131	11	25	131

		PM											
		Existing			Existing plus Project			Future Base			Future plus Project		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Souteastbound	Glenoaks Blvd	33	1278	202	33	1316	202	34	1351	229	34	1389	229
Southbound	Keystone St	135	0	21	135	0	21	148	0	23	148	0	23
Westbound	Tulare Ave	37	15	22	37	15	22	38	18	27	38	18	27
Northwestbound	Glenoaks Blve	58	1339	265	58	1352	265	56	1355	288	56	1368	288
Northbound	Keystone St	189	0	8	189	0	8	208	0	3	208	0	3
Eastbound	Tulare Ave	14	4	75	14	4	75	16	5	77	16	5	77

		Weekend Midday											
		Existing			Existing plus Project			Future Base			Future plus Project		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Souteastbound	Glenoaks Blvd	26	1038	286	26	1054	286	27	1068	301	27	1083	301
Southbound	Keystone St	125	0	21	125	0	21	131	0	22	131	0	22
Westbound	Tulare Ave	60	5	8	60	5	8	63	5	8	63	5	8
Northwestbound	Glenoaks Blve	32	891	225	32	902	225	34	920	237	34	931	237
Northbound	Keystone St	167	0	10	167	0	10	176	0	11	176	0	11
Eastbound	Tulare Ave	14	4	65	14	4	65	15	4	68	15	4	68

APPENDIX C

C. Project Health Risk Assessment Worksheets

Legend

Volume Source

Sensitive Receptor

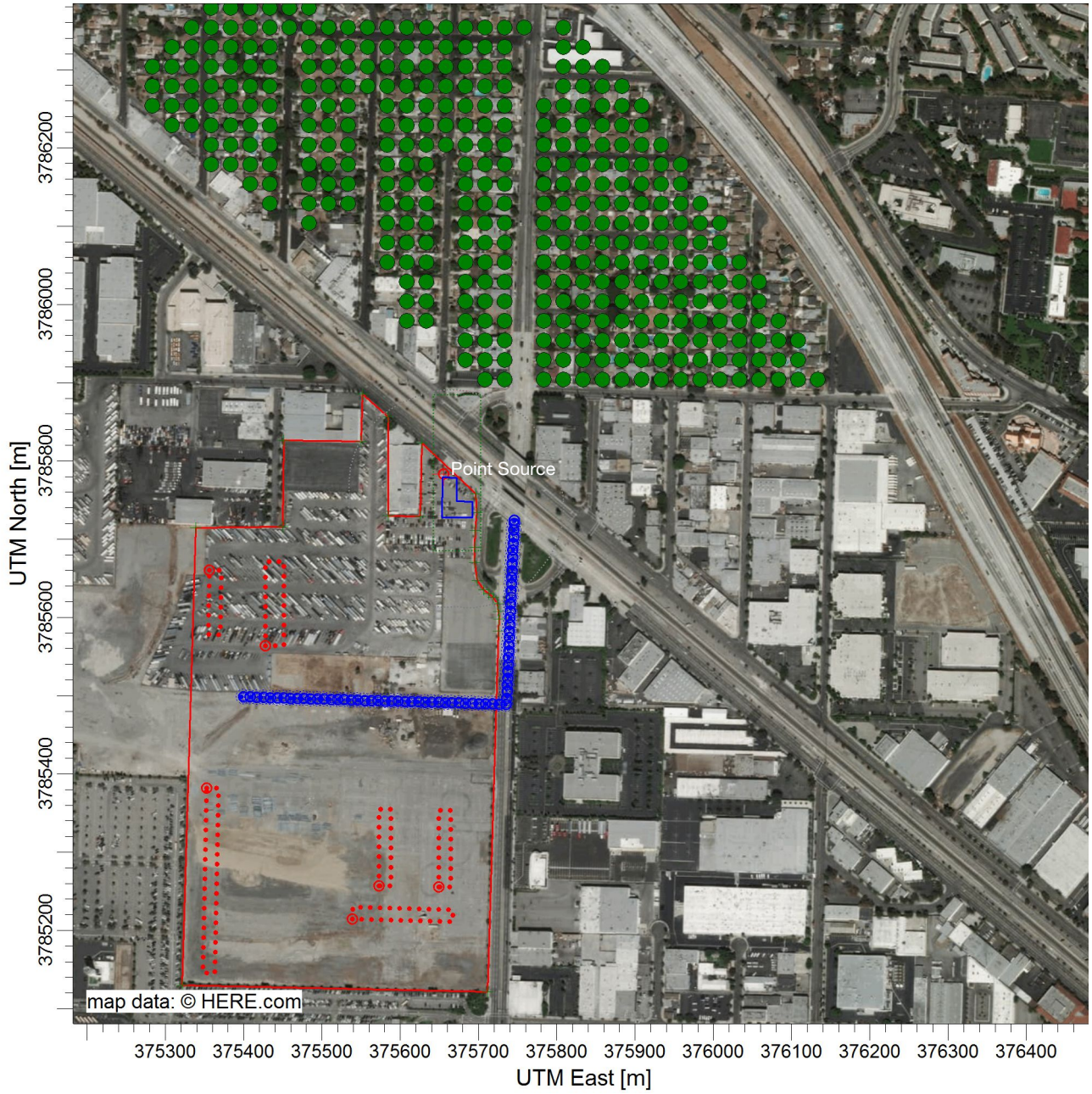
Line-Volume Source

0 0.3 km

SOURCE: ESA, 2017

Avion Burbank Project
Construction Health Risk Assessment
Source-Receptor Diagram

ESA



Legend

Point Source

Sensitive Receptor

Area Source

Building

Line-volume source

0 0.3 km

SOURCE: ESA, 2017

Avion Burbank Project

Operations Health Risk Assessment

Source-Receptor Diagram

ESA

Avion Burbank Project
Air Quality Assessment
Construction Health Risk Assessment - UNMITIGATED

AERMOD Results

Emission Source	Source Type	Unitized Max AERMOD ($\mu g/m^3$ per 1 g/second) Residential UTM: 375708, 3785904
Source Group 1		1.34894
Off-Road Heavy-Duty Construction Equipment	*Volume*	
Source Group 2		7.36003
On-Road Vendor Trucks (SLINE1)	*Line-Volume*	
Source Group 3		2.22049
Idling Vendor Trucks	*Volume*	

Note: No haul truck trips because all debris and excavated soil will be balanced onsite.

Source: Lakes Environmental, AERMOD View 9.3.0 (Version 16216r) 2017; ESA 2017.

Avion Burbank Project
Air Quality Assessment
Construction Health Risk Assessment - UNMITIGATED

Off-Road Heavy-Duty Constuction Equipment Emission Rates

	Construction Activity	Estimated Schedule		Equipment Type	Work Days by Activity (days)	Work Hours per Day (hours/day)	Daily DPM Emissions [a] (pounds/day)	Emissions Rate during Work Period (grams/second)	Duration in Each Age Bin		
									3rd Trimester 4/1/2018 7/1/2018	0-2 Years 7/1/2018 7/1/2020	>2 Years 7/1/2020 8/28/2020
		Start	End								
1	Demolition	2018/04/01	2018/04/20	Off-Road Heavy-Duty	17	8	0.1022	1.61E-03	17		
2	Grading	2018/04/05	2018/06/02	Off-Road Heavy-Duty	51	8	0.4497	7.08E-03	51		
3	Drainage/Utilities/Trenching	2018/05/07	2018/06/05	Off-Road Heavy-Duty	26	8	0.0618	9.73E-04	26		
4	Foundation	6/11/2018	11/15/2018	Off-Road Heavy-Duty	136	8	0.1736	2.73E-03	18	118	
5	Building Construction	11/30/2018	8/7/2019	Off-Road Heavy-Duty	215	8	0.4309	6.79E-03		215	
6	Paving	10/23/2018	8/3/2019	Off-Road Heavy-Duty	245	8	0.0612	9.64E-04		245	
7	Landscaping	9/3/2019	9/27/2019	Off-Road Heavy-Duty	22	8	0.0380	5.98E-04		22	
8	Architectural Coating	6/1/2019	10/1/2019	Off-Road Heavy-Duty	105	8	0.0405	6.38E-04		105	
9	Drainage/Utilities/Trenching	9/1/2018	9/27/2018	Off-Road Heavy-Duty	23	8	0.0463	7.29E-04		23	
10	Foundation	10/1/2018	1/10/2019	Off-Road Heavy-Duty	88	8	0.1385	2.18E-03		88	
11	Building Construction	1/21/2019	5/15/2020	Off-Road Heavy-Duty	413	8	0.4670	7.36E-03		413	
12	Paving	7/1/2020	8/26/2020	Off-Road Heavy-Duty	49	8	0.0427	6.73E-04			49
13	Landscaping	8/1/2020	8/28/2020	Off-Road Heavy-Duty	24	8	0.0158	2.49E-04			24
14	Architectural Coating	6/1/2020	8/28/2020	Off-Road Heavy-Duty	77	8	0.0301	4.74E-04		27	50

Maximum 12-Month Emissions (for Chronic HI analysis)						
1	*Demolition*	*Off-Road Heavy-Duty*	*17*	*8*	*0.1022*	*1.61E-03*
2	*Grading*	*Off-Road Heavy-Duty*	*51*	*8*	*0.4497*	*7.08E-03*
3	*Drainage/Utilities/Trenching*	*Off-Road Heavy-Duty*	*26*	*8*	*0.0618*	*9.73E-04*
4	*Foundation*	*Off-Road Heavy-Duty*	*136*	*8*	*0.1736*	*2.73E-03*
5	*Building Construction*	*Off-Road Heavy-Duty*	*215*	*8*	*0.4309*	*6.79E-03*
6	*Paving*	*Off-Road Heavy-Duty*	*245*	*8*	*0.0612*	*9.64E-04*
7	*Landscaping*	*Off-Road Heavy-Duty*	*22*	*8*	*0.0380*	*5.98E-04*
8	*Architectural Coating*	*Off-Road Heavy-Duty*	*105*	*8*	*0.0405*	*6.38E-04*
9	*Drainage/Utilities/Trenching*	*Off-Road Heavy-Duty*	*23*	*8*	*0.0463*	*7.29E-04*
10	*Foundation*	*Off-Road Heavy-Duty*	*88*	*8*	*0.1385*	*2.18E-03*
11	*Building Construction*	*Off-Road Heavy-Duty*	*413*	*8*	*0.4670*	*7.36E-03*
12	*Paving*	*Off-Road Heavy-Duty*	*49*	*8*	*0.0427*	*6.73E-04*
13	*Landscaping*	*Off-Road Heavy-Duty*	*24*	*8*	*0.0158*	*2.49E-04*
14	*Architectural Coating*	*Off-Road Heavy-Duty*	*77*	*8*	*0.0301*	*4.74E-04*
				Average Emissions Rate:		*3.95E-03*

Notes:

a. California Air Resources Board, California Emissions Estimator Model (CalEEMod).

Source: ESA 2017.

Travel On-Road Haul, Concrete, Vendor Truck Emission Rates

	Construction Activity	Estimated Schedule		Equipment Type	Work Days per Year (days/year)	Work Hours per Day (hours/day)	Construction Activity Year	Daily One-Way Truck Trips	One-Way Trip Distance per Day [a] (miles/trip)	DPM Running Emissions Factor [b] (grams/mile)	Emissions Rate during Work Period (grams/second)
1	Demolition	2018/04/01	2018/04/20	HHDT	17	8	2018	6.00	0.644	0.0262	3.51E-06
2	Grading	2018/04/05	2018/06/02	HHDT	51	8	2018	6.00	0.644	0.0262	3.51E-06
3	Drainage/Utilities/Trenching	2018/05/07	2018/06/05	HHDT	26	8	2018	6.00	0.644	0.0262	3.51E-06
4	Foundation	6/11/2018	11/15/2018	T7 Single Construction/HHD	136	8	2018	72.00	0.644	0.0374	5.87E-05
5	Building Construction	11/30/2018	8/7/2019	HHDT	215	8	2018-2019	6.00	0.644	0.0262	3.51E-06
6	Paving	10/23/2018	8/3/2019	T7 Single Construction/HHD	245	8	2018-2019	14.00	0.644	0.0374	1.02E-05
7	Landscaping	9/3/2019	9/27/2019	HHDT	22	8	2019	6.00	0.644	0.0240	3.22E-06
8	Architectural Coating	6/1/2019	10/1/2019	HHDT	105	8	2019	6.00	0.644	0.0240	3.22E-06
9	Drainage/Utilities/Trenching	9/1/2018	9/27/2018	HHDT	23	8	2018	6.00	0.644	0.0262	3.51E-06
10	Foundation	10/1/2018	1/10/2019	T7 Single Construction/HHD	88	8	2018-2019	18.00	0.644	0.0374	1.19E-05
11	Building Construction	1/21/2019	5/15/2020	HHDT	413	8	2019-2020	6.00	0.644	0.0240	3.22E-06
12	Paving	7/1/2020	8/26/2020	T7 Single Construction/HHD	49	8	2020	6.00	0.644	0.0190	3.11E-06
13	Landscaping	8/1/2020	8/28/2020	HHDT	24	8	2020	6.00	0.644	0.0197	2.64E-06
14	Architectural Coating	6/1/2020	8/28/2020	HHDT	77	8	2020	6.00	0.644	0.0197	2.64E-06

Maximum 12-Month Emissions (for Chronic HI analysis)									
1	*Demolition*	HHDT	*17*	*8*	*2018*	*6*	*0.644*	*0.0262*	*3.51E-06*
2	*Grading*	HHDT	*51*	*8*	*2018*	*6*	*0.644*	*0.0262*	*3.51E-06*
3	*Drainage/Utilities/Trenching*	HHDT	*26*	*8*	*2018*	*6*	*0.644*	*0.0262*	*3.51E-06*
4	*Foundation*	T7 Single Construction/HHD	*136*	*8*	*2018*	*72*	*0.644*	*0.0374*	*5.87E-05*
5	*Building Construction*	HHDT	*215*	*8*	*2018-2019*	*6*	*0.644*	*0.0262*	*3.51E-06*
6	*Paving*	T7 Single Construction/HHD	*245*	*8*	*2018-2019*	*14*	*0.644*	*0.0374*	*1.02E-05*
7	*Landscaping*	HHDT	*22*	*8*	*2019*	*6*	*0.644*	*0.0240*	*3.22E-06*
8	*Architectural Coating*	HHDT	*105*	*8*	*2019*	*6*	*0.644*	*0.0240*	*3.22E-06*
9	*Drainage/Utilities/Trenching*	HHDT	*23*	*8*	*2018*	*6*	*0.644*	*0.0262*	*3.51E-06*
10	*Foundation*	T7 Single Construction/HHD	*88*	*8*	*2018-2019*	*18*	*0.644*	*0.0374*	*1.19E-05*
11	*Building Construction*	HHDT	*413*	*8*	*2019-2020*	*6*	*0.644*	*0.0240*	*3.22E-06*
12	*Paving*	T7 Single Construction/HHD	*49*	*8*	*2020*	*6*	*0.644*	*0.0190*	*3.11E-06*
13	*Landscaping*	HHDT	*24*	*8*	*2020*	*6*	*0.644*	*0.0197*	*2.64E-06*
14	*Architectural Coating*	HHDT	*77*	*8*	*2020*	*6*	*0.644*	*0.0197*	*2.64E-06*
							Average Emissions Rate:		*9.97E-06*

Notes:

a. The portion of the on-road trip length within a 1/4 mile of the Project Site.

b. California Air Resources Board, EMFAC2014 on-road vehicle emissions model.

Source: ESA 2017.

Idling On-Road Haul, Concrete, Vendor Truck Emission Rates

Construction Activity	Estimated Schedule		Equipment Type	Work Days per Year (days/year)	Work Hours per Day (hours/day)	Construction Activity Year	Total Number of Trucks	Idling Time per Truck (minutes)	DPM Idling Emissions Factor [a] (grams/min)	Emissions Rate during Work Period (grams/second)
1 Demolition	2018/04/01	2018/04/20	HHDT	17	8	2018	3	10	3.62E-03	3.77E-06
2 Grading	2018/04/05	2018/06/02	HHDT	51	8	2018	3	10	3.62E-03	3.77E-06
3 Drainage/Utilities/Trenching	2018/05/07	2018/06/05	HHDT	26	8	2018	3	10	3.62E-03	3.77E-06
4 Foundation	6/11/2018	11/15/2018	T7 Single Construction/HHD	136	8	2018	36	10	4.53E-03	5.57E-05
5 Building Construction	11/30/2018	8/7/2019	HHDT	215	8	2018-2019	3	10	3.62E-03	3.77E-06
6 Paving	10/23/2018	8/3/2019	T7 Single Construction/HHD	245	8	2018-2019	7	10	4.53E-03	1.01E-05
7 Landscaping	9/3/2019	9/27/2019	HHDT	22	8	2019	3	10	3.16E-03	3.29E-06
8 Architectural Coating	6/1/2019	10/1/2019	HHDT	105	8	2019	3	10	3.16E-03	3.29E-06
9 Drainage/Utilities/Trenching	9/1/2018	9/27/2018	HHDT	23	8	2018	3	10	3.62E-03	3.77E-06
10 Foundation	10/1/2018	1/10/2019	T7 Single Construction/HHD	88	8	2018-2019	9	10	4.53E-03	1.32E-05
11 Building Construction	1/21/2019	5/15/2020	HHDT	413	8	2019-2020	3	10	3.16E-03	3.29E-06
12 Paving	7/1/2020	8/26/2020	T7 Single Construction/HHD	49	8	2020	3	10	5.40E-04	2.38E-06
13 Landscaping	8/1/2020	8/28/2020	HHDT	24	8	2020	3	10	2.00E-03	2.08E-06
14 Architectural Coating	6/1/2020	8/28/2020	HHDT	77	8	2020	3	10	2.00E-03	2.08E-06

Maximum 12-Month Emissions (for Chronic HI analysis)									
1 Demolition	HHDT	*17*	*8*	*2018*	*3*	*10*	*3.62E-03*	*3.77E-06*	
2 Grading	HHDT	*51*	*8*	*2018*	*3*	*10*	*3.62E-03*	*3.77E-06*	
3 Drainage/Utilities/Trenching	HHDT	*26*	*8*	*2018*	*3*	*10*	*3.62E-03*	*3.77E-06*	
4 Foundation	T7 Single Construction/HHD	*136*	*8*	*2018*	*36*	*10*	*4.53E-03*	*5.57E-05*	
5 Building Construction	HHDT	*215*	*8*	*2018-2019*	*3*	*10*	*3.62E-03*	*3.77E-06*	
6 Paving	T7 Single Construction/HHD	*245*	*8*	*2018-2019*	*7*	*10*	*4.53E-03*	*1.01E-05*	
7 Landscaping	HHDT	*22*	*8*	*2019*	*3*	*10*	*3.16E-03*	*3.29E-06*	
8 Architectural Coating	HHDT	*105*	*8*	*2019*	*3*	*10*	*3.16E-03*	*3.29E-06*	
9 Drainage/Utilities/Trenching	HHDT	*23*	*8*	*2018*	*3*	*10*	*3.62E-03*	*3.77E-06*	
10 Foundation	T7 Single Construction/HHD	*88*	*8*	*2018-2019*	*9*	*10*	*4.53E-03*	*1.32E-05*	
11 Building Construction	HHDT	*413*	*8*	*2019-2020*	*3*	*10*	*3.16E-03*	*3.29E-06*	
12 Paving	T7 Single Construction/HHD	*49*	*8*	*2020*	*3*	*10*	*5.40E-04*	*2.38E-06*	
13 Landscaping	HHDT	*24*	*8*	*2020*	*3*	*10*	*2.00E-03*	*2.08E-06*	
14 Architectural Coating	HHDT	*77*	*8*	*2020*	*3*	*10*	*2.00E-03*	*2.08E-06*	
							Average Emissions Rate:	*9.77E-06*	

Notes:

a. California Air Resources Board, EMFAC2014 on-road vehicle emissions model.

Source: ESA 2017.

Avion Burbank Project
Air Quality Assessment
Construction Health Risk Assessment - UNMITIGATED

Maximum Individual Cancer Risk Calculations - Sensitive Receptors (Maximum Impacted Residential Receptor)

Concentrations by Age Bin

		Age Bins			
	Construction Phase/Equipment	**3rd Trimester**	**0 < 2**	**2<16**	**16-30**
Days	Demolition	17			
CONC	Off-Road Equipment	2.17E-03			
	On-Road Trucks	2.59E-05			
	Idling Trucks	8.37E-06			
Days	Grading	51			
CONC	Off-Road Equipment	9.55E-03			
	On-Road Trucks	2.59E-05			
	Idling Trucks	8.37E-06			
Days	Drainage/Utilities/Trenching	26			
CONC	Off-Road Equipment	1.31E-03			
	On-Road Trucks	2.59E-05			
	Idling Trucks	8.37E-06			
Days	Foundation	18	118		
CONC	Off-Road Equipment	3.69E-03	3.69E-03		
	On-Road Trucks	4.32E-04	4.32E-04		
	Idling Trucks	1.24E-04	1.24E-04		
Days	Building Construction		215		
CONC	Off-Road Equipment		9.15E-03		
	On-Road Trucks		2.59E-05		
	Idling Trucks		8.37E-06		
Days	Paving		245		
CONC	Off-Road Equipment		1.30E-03		
	On-Road Trucks		7.51E-05		
	Idling Trucks		2.24E-05		
Days	Landscaping		22		
CONC	Off-Road Equipment		8.07E-04		
	On-Road Trucks		2.37E-05		
	Idling Trucks		7.31E-06		
Days	Architectural Coating		105		
CONC	Off-Road Equipment		8.60E-04		
	On-Road Trucks		2.37E-05		
	Idling Trucks		7.31E-06		
Days	Drainage/Utilities/Trenching		23		
CONC	Off-Road Equipment		9.84E-04		
	On-Road Trucks		2.59E-05		
	Idling Trucks		8.37E-06		
Days	Foundation		88		
CONC	Off-Road Equipment		2.94E-03		
	On-Road Trucks		8.75E-05		
	Idling Trucks		2.93E-05		
Days	Building Construction		413		
CONC	Off-Road Equipment		9.92E-03		
	On-Road Trucks		2.37E-05		
	Idling Trucks		7.31E-06		
Days	Paving			49	
CONC	Off-Road Equipment			9.07E-04	
	On-Road Trucks			2.29E-05	
	Idling Trucks			5.29E-06	
Days	Landscaping			24	
CONC	Off-Road Equipment			3.36E-04	
	On-Road Trucks			1.94E-05	
	Idling Trucks			4.63E-06	
Days	Architectural Coating		27	50	
CONC	Off-Road Equipment		6.39E-04	6.39E-04	
	On-Road Trucks		1.94E-05	1.94E-05	
	Idling Trucks		4.63E-06	4.63E-06	
	Work Days in Age Bin (Check)	78	626	4382	4382
	Average Annual Concentration over Age Bin	6.99E-03	1.01E-02	1.72E-05	0.00E+00

Source: ESA 2017.

Cancer Risk Calculations

		Age Bins				
	Parameter	**3rd Trimester**	**0 < 2**	**2 < 16**	**16 < 30**	**Total 30 Year Exposure**
DBR	Daily Breathing Rate (L/kg (body weight) per day)	361	1090	631	261	
A	Inhalation absorption factor (default = 1).	1	1	1	1	
EF	Exposure Frequency (days/year)	350	350	350	350	
ED	Exposure Duration (years)	0.25	2	14	14	**30.25**
FAH	Fraction of Time at Home	1.0	1.0	1.0	0.73	
AT	Averaged Exposure Time Period (days)	25550	25550	25550	25550	
ASF	Age Sensitvity Factor	10	10	3	1	
CONC	Toxic Air Contaminant Concentration ($\mu g/m^3$)	6.99E-03	1.01E-02	1.72E-05	0.00E+00	
DOSE	*[= CONC × DBR × A × EF × ED × FAH / AT]* (mg/kg-d)	8.64E-03	3.01E-01	2.08E-03	0.00E+00	
CPF	Cancer Potency Factor $(mg/kg\text{-}d)^{-1}$					
	Diesel Particulate Matter	1.1	1.1	1.1	1.1	
RISK	Cancer Risk (in one million) [= *DOSE × CPF × ASF*]	9.51E-02	3.31E+00	6.85E-03	0.00E+00	**3.41**

Sources: OEHHA, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments 2015;
SCAQMD, Risk Assessment Procedures for Rules 1401, 1401.1 and 212, Version 8.0, June 5, 2015; ESA 2017.

Avion Burbank Project
Operational Health Risk Assessment

Maximum Modeled Operation Concentration at Sensitive Receptor [1]

IDLE	Onroad	Gen	Source Groups in AERMOD
0.000140663	3.32075E-05	0.000248	**(g/s) Annual-average emission rates [2]**
0.94519	1.89291	5.25733	**(µg/m3 per 1 g/second) Unitized AERMOD Concentration**
0.000132953	6.28588E-05	0.001302	**(µg/m3) Concentration**
0.001497615			**(µg/m3) Total Concentration [3]**

Notes:

1. Same calculation was done for all the 365 sensitive receptors modeled in AERMOD. This table only presents the calculation done for the maximum concentration location (375708, 3785904).

2. Annual average emission rates were based on the estimated operational data for buildout year 2020.

3. The same maximum total concentration was conservatively applied to the 30-year duration for operational cancer risk calculation.

Avion Burbank Project
Air Quality Assessment
Operational Health Risk Assessment - UNMITIGATED

Maximum Individual Cancer Risk Calculations - Sensitive Receptors (Maximum Impacted Residential Receptor)

Concentrations by Age Bin

	Age Bins			
	3rd Trimester	0 < 2	2<16	16-30
Work Days in Age Bin (Check)	78	627	4331	4382
Average Annual Concentration over Age Bin	0.00E+00	0.00E+00	1.25E-03	1.50E-03

Source: ESA 2017.

Cancer Risk Calculations

	Parameter	Age Bins				Total 30 Year Exposure
		3rd Trimester	0 < 2	2 < 16	16 < 30	
DBR	Daily Breathing Rate (L/kg (body weight) per day)	361	1090	631	261	
A	Inhalation absorption factor (default = 1).	1	1	1	1	
EF	Exposure Frequency (days/year)	350	350	350	350	
ED	Exposure Duration (years)	0.25	2	14	14	**30.25**
FAH	Fraction of Time at Home	1.0	1.0	1.0	0.73	
AT	Averaged Exposure Time Period (days)	25550	25550	25550	25550	
ASF	Age Sensitvity Factor	10	10	3	1	
CONC	Toxic Air Contaminant Concentration ($\mu g/m^3$)	0.00E+00	0.00E+00	1.25E-03	1.50E-03	
DOSE	*[= CONC × DBR × A × EF × ED × FAH / AT]* (mg/kg-d)	0.00E+00	0.00E+00	1.52E-01	5.47E-02	
CPF	Cancer Potency Factor $(mg/kg\text{-}d)^{-1}$ Diesel Particulate Matter	1.1	1.1	1.1	1.1	
RISK	Cancer Risk (in one million) [= *DOSE × CPF × ASF*]	0.00E+00	0.00E+00	5.01E-01	6.02E-02	**0.56**

Sources: OEHHA, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments 2015;
SCAQMD, Risk Assessment Procedures for Rules 1401, 1401.1 and 212, Version 8.0, June 5, 2015; ESA 2017.

Cancer Risk from 2 years and 5 months of construction	**3.41**
Cancer Risk from 28 years of operation	**0.56**
Total 30-year cancer risk from construction + operation	**3.97**

Avion Burbank Project
Air Quality Assessment
Operational Health Risk Assessment - UNMITIGATED

Maximum Individual Cancer Risk Calculations - Sensitive Receptors (Maximum Impacted Residential Receptor)

Concentrations by Age Bin

	Age Bins			
	3rd Trimester	0 < 2	2<16	16-30
Work Days in Age Bin (Check)	78	627	4382	4382
Average Annual Concentration over Age Bin	1.50E-03	1.50E-03	1.50E-03	1.50E-03

Source: ESA 2017.

Cancer Risk Calculations

	Parameter	Age Bins				Total 30 Year Exposure
		3rd Trimester	0 < 2	2 < 16	16 < 30	
DBR	Daily Breathing Rate (L/kg (body weight) per day)	361	1090	631	261	
A	Inhalation absorption factor (default = 1).	1	1	1	1	
EF	Exposure Frequency (days/year)	350	350	350	350	
ED	Exposure Duration (years)	0.25	2	14	14	**30.25**
FAH	Fraction of Time at Home	1.0	1.0	1.0	0.73	
AT	Averaged Exposure Time Period (days)	25550	25550	25550	25550	
ASF	Age Sensitvity Factor	10	10	3	1	
CONC	Toxic Air Contaminant Concentration ($\mu g/m^3$)	1.50E-03	1.50E-03	1.50E-03	1.50E-03	
DOSE	*[= CONC × DBR × A × EF × ED × FAH / AT]* (mg/kg-d)	1.85E-03	4.47E-02	1.81E-01	5.47E-02	
CPF	Cancer Potency Factor $(mg/kg\text{-}d)^{-1}$					
	Diesel Particulate Matter	1.1	1.1	1.1	1.1	
RISK	Cancer Risk (in one million) [= *DOSE × CPF × ASF*]	2.04E-02	4.92E-01	5.98E-01	6.02E-02	**1.17**

Sources: OEHHA, Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments 2015;
SCAQMD, Risk Assessment Procedures for Rules 1401, 1401.1 and 212, Version 8.0, June 5, 2015; ESA 2017.

Avion Burbank Project
Air Quality Assessment
Construction and Operational Health Risk Assessment - UNMITIGATED

Maximum Non-cancer Chronic Hazards / Toxicological Endpoints*

Residential	Pollutant	CREL[1]	CONC	WFrac	$CONC_{WF}$	HI	ALIM	BN	CVS	DEV	ENDC	EYE	HEM	IMMUN	KIDN	NS	REPRO	RESP	SK	Threshold	Over?
Project:																					
MEI Sensitive - Operation	DPM	5.00E+00	1.50E-03	1.00E+00	1.50E-03	3.00E-04	-	-	-	-	-	-	-	-	-	-	-	3.00E-04	-	1.0	NO
MEI Sensitive - CSTN	DPM	5.00E+00	5.42E-03	1.00E+00	5.42E-03	1.08E-03	-	-	-	-	-	-	-	-	-	-	-	1.08E-03	-	1.0	NO

Sources:

1. California Air Resources Board, "Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values" and "OEHHA/ARB Approved Chronic Reference Exposure Levels and Target Organs," http://www.arb.ca.gov/toxics/healthval/healthval.htm.
   Tables last updated: September 9, 2016 and March 30, 2016. Downloaded 02/10/2017.

Where:

$CONC_{WF}$	ıg/m^3) multiplied by the weight fraction
CREL	eference Exposure Level
HI	Hazard Index
MEI	lly Exposed Individual
WFrac	ɔn of speciated component

* Key to Toxicological Endpoints

ALIM	Alimentary Tract	EYE	Eye	NS	Nervous System
BN	Bone	HEM	Hematologic System	REPRO	Reproductive System
CVS	Cardiovascular System	IMMUN	Immune System	RESP	Respiratory System
DEV	Developmental System	KIDN	Kidney	SK	Skin
ENDC	Endocrine System				