Final

CITY OF PLEASANTON JOHNSON DRIVE ECONOMIC DEVELOPMENT ZONE

Technical Memo on Updated Air Quality Analysis

Prepared for
City of Pleasanton

July 2019

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EXECUTIVE SUMMARY

This technical memorandum (Memo) presents the updated criteria pollutant emissions analysis for Section 4.B – Air Quality of the 2015 Draft Supplemental Environmental Impact Report (SEIR) for the Johnson Drive Economic Development Zone project (Project) located in the City of Pleasanton, in support of environmental clearance of the Project under the California Environmental Quality Act (CEQA). Pursuant to comments regarding the Draft SEIR, which was published in September 2015, a Health Risk Assessment (HRA) has been prepared for the Project and is being added to the SEIR. Consistent with new modeling data used for the HRA, this technical Memo supplements Section 4.B of the Draft SEIR with an updated analysis of criteria pollutants emissions including reactive organic carbon (ROG), nitrogen oxides (NO_X), construction related exhaust particulate matter (PM), particulate matter with an aerodynamic diameter equal to or less than 10 microns (PM_{10}), particulate matter with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), and carbon monoxide (CO).

This memo also discusses health effects of criteria pollutants along with the Project's potential cumulative health-related impacts pursuant to the *Sierra Club v. County of Fresno* court ruling.[1]

Consistent with the HRA, this analysis uses the updated and conservative assumptions about the timing of construction and the scope of project-related activity within the project area. For near-term activities, such as the first phase of construction, realistic assumptions are made based on the anticipated construction activity and phasing of development. For longer-term activities that may occur beyond the first phase of development, such as the development of commercial and retail space during phase 2, more conservative assumptions were made in order to provide a worst-case analysis of potential Project impact, because the actual construction activity and phasing of this development is currently unknown. These assumptions are provided in greater detail in Chapter 1 of this Memo.

For construction, this analysis shows the Project's criteria pollutant emissions are below the corresponding Bay Area Air Quality Management District (BAAQMD) significance thresholds except for NO_X emissions from Phase 1 construction. Phase 1 construction NO_X emissions are estimated to be an average of 55.7 pounds per day (lbs/day), exceeding the significance threshold of 54 lbs/day. Therefore, mitigation is required to reduce Project impacts during Phase 1 construction. As such, the Project Sponsor would require all off-road equipment greater than 50 horsepower to have engines that meet United States Environmental Protection Agency (USEPA) Tier 3 off-road emission standards. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.

[1] Sierra Club v. County Of Fresno (Friant Ranch), S219783, Fifth Appellate District, F066798, Fresno County Superior Court.

For operations, Phase 1 operational activities are estimated to be an average of 54.60 pounds per day (lbs/day), exceeding the significance threshold of 54 lbs/day. Therefore, mitigation is required to reduce Project impacts during Phase 1 operations. As such, the Project would require all future tenants and building owners to use low-volatile organic compound (VOC) paints during maintenance activities. The VOC content of paints shall not exceed 10 grams of VOCs per liter. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.

Because of the updated project details used in this analysis as compared to those used in the Draft SEIR (changes include square footage of some proposed land uses, and construction phasing and equipment fleets), the conclusions with regard to the project's criteria pollutants emissions have changed with this updated analysis. For example, conclusions about construction emissions changed from less than significant for all criteria pollutants in the Draft SEIR to less than significant with mitigation in this updated analysis (due to average daily unmitigated emissions during Phase 1 construction exceeding the BAAQMD threshold); the conclusions about project operational emissions have changed from significant and unavoidable impacts (attributable to average daily and total annual NO_X and PM_{10} emissions) during full buildout operations in the Draft SEIR to less than significant for all operational scenarios including the full buildout operations.

Please refer to Chapter 2, *Results*, for additional detail on the findings of this analysis.

CHAPTER 1
Health Effects of Criteria Pollutants

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 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. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for each of the criteria air pollutants and their effects on health are summarized in the Draft SEIR (Table 4.B-2). It must be noted that the ambient air quality standards—both federal and state—are expressed as airborne concentrations of various pollutants. Compliance with the standards is on a regional basis. In the Bay Area, compliance is demonstrated by ongoing measurements of pollutant concentrations at more than 30 air quality monitoring stations operated by the BAAQMD in all nine Bay Area counties. An exceedance of an ambient air quality standard at any one of the stations counts as a regional exceedance.

NAAQS and CAAQS have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. As explained by the California Air Resources Board (CARB), "An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment."[2] That is, if a region is in compliance with the ambient air quality standards, its regional air quality can be considered protective of public health. The NAAQS are statutorily required to be set by the USEPA at levels that are "requisite to protect the public health," 42 U.S.C. § 7409(b)(1).[3] As such, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.

A brief description of the health effects of exposure to criteria air pollutants is provided below.

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2 CARB, undated. "California Ambient Air Quality Standards (CAAQS)" webpage. Available at: https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm, last updated August 10, 2017. Accessed February 11, 2019.

3 See: https://www.law.cornell.edu/uscode/text/42/7409

Ozone

Ground-level Ozone is the main component of smog. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_X. ROG and NO_X are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_X under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

According to the USEPA, ozone can cause the muscles in the airways to constrict potentially leading to wheezing and shortness of breath.[4] Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease.[5] Long-term exposure to ozone is linked to aggravation of asthma, and is likely to be one of many causes of asthma development and long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children.[6] According to the CARB, inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath.[7] The USEPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.[8] Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when

4 USEPA, 2018. Health Effects of Ozone Pollution. Available: https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution, last updated October 10, 2018. Accessed January 8, 2019.USEPA, 2018b. Sulfur Dioxide (SO_2) Pollution. Available: https://www.epa.gov/so2-pollution/sulfur-dioxide-basics, last updated June 28, 2018. Accessed January 8, 2019.

5 USEPA, 2018. Health Effects of Ozone Pollution. Available: https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution, last updated October 10, 2018. Accessed January 8, 2019.USEPA, 2018b. Sulfur Dioxide (SO_2) Pollution. Available: https://www.epa.gov/so2-pollution/sulfur-dioxide-basics, last updated June 28, 2018. Accessed January 8, 2019.

6 Ibid.

7 CARB, 2019. Ozone & Health, Health Effects of Ozone. Available: https://ww2.arb.ca.gov/resources/ozone-and-health. Accessed January 8, 2018.

8 USEPA, 2018. Health Effects of Ozone Pollution. Available: https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution, last updated October 10, 2018. Accessed January 8, 2019.USEPA, 2018b. Sulfur Dioxide (SO_2) Pollution. Available: https://www.epa.gov/so2-pollution/sulfur-dioxide-basics, last updated June 28, 2018. Accessed January 8, 2019.

ozone levels are high, which increases their exposure.[9] According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults.[10] Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures.[11] Further research may be able to better distinguish between health effects in children and adults.[12]

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is an air quality pollutant of concern because it acts as a respiratory irritant. NO_2 is a major component of the group of gaseous nitrogen compounds commonly referred to as NOx. A precursor to ozone formation, NOx is produced by fuel combustion in motor vehicles, stationary sources such as industrial activities, ships, aircraft, and rail transit. Typically, NOx emitted from fuel combustion is in the form of nitric oxide and NO_2. Nitric oxide is often converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere.

Ambient air quality standards have been promulgated for NO_2, which is a reddish-brown, reactive gas.[13] The principle form of NO_X produced by combustion is nitric oxide, but nitric oxide reacts quickly in the atmosphere to form NO_2, creating the mixture of nitric oxide and NO_2 referred to as NO_X.[14] Major sources of NO_X include emissions from cars, trucks and buses, power plants, and off-road equipment.[15] The terms NO_X and NO_2 are sometimes used interchangeably. However, the term NO_X is typically used when discussing emissions, usually from combustion-related activities, and the term NO_2 is typically used when discussing ambient air quality standards. Where NO_X emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2.

According to the USEPA, NO_2 can potentially irritate airways in the human respiratory system.[16] Short-term exposures can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital admissions and visits to emergency rooms and longer exposures to elevated concentrations of NO_2 may

9 Ibid.

10 CARB, 2019. Ozone & Health, Health Effects of Ozone. Available: https://ww2.arb.ca.gov/resources/ozone-and-health. Accessed January 8, 2018.

11 Ibid.

12 Ibid.

13 CARB, 2019. Nitrogen Dioxide & Health. Available: https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health. Accessed January 8, 2019.

14 Ibid.

15 USEPA, 2016. Nitrogen Dioxide (NO_2) Pollution. Available: https://www.epa.gov/no2-pollution/basic-information-about-no2, last updated September 8, 2016. Accessed January 8, 2019.

16 USEPA, 2016. Nitrogen Dioxide (NO_2) Pollution. Available: https://www.epa.gov/no2-pollution/basic-information-about-no2, last updated September 8, 2016. Accessed January 8, 2019.

contribute to the development of asthma and potentially increase susceptibility to respiratory infections. According to CARB, controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics.[17] In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses.[18] Infants and children are particularly at risk from exposure to NO_2 because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.[19] CARB states that much of the information on distribution in air, human exposure and dose, and health effects is specifically for NO_2 and there is only limited information for nitric oxide and NO_X, as well as large uncertainty in relating health effects to nitric oxide or NO_X exposure.[20]

Carbon Monoxide

Carbon monoxide is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. Unlike other criteria pollutants, whose effects are regional, CO impacts are evaluated locally. Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots.

When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia. At very high levels, which are possible indoors or in other enclosed environments, CO can cause dizziness, confusion, unconsciousness and death.[21] Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress.[22] In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart

17 CARB, 2019. Nitrogen Dioxide & Health. Available: https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health. Accessed January 8, 2019.

18 Ibid.

19 Ibid.

20 Ibid.

21 USEPA, 2016. Carbon Monoxide (CO) Pollution in Outdoor Air. Available: https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution, last updated September 8, 2016. Accessed January 8, 2019.

22 Ibid.

accompanied by chest pain also known as angina.[23] According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain.[24] For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance.[25] Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO.[26]

Particulate Matter

PM_{10} and $PM_{2.5}$ can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health.

As long ago as 1999, BAAQMD CEQA Guidelines reported that studies showed that elevated particulate levels contribute to the death of approximately 200 to 500 people per year in the Bay Area. Compelling evidence suggests that $PM_{2.5}$ is by far the most harmful air pollutant in the Bay Area air in terms of the associated impact on public health. A large body of scientific evidence indicates that both long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects (e.g., aggravating asthma and bronchitis, causing visits to the hospital for respiratory and cardiovascular symptoms, and contributing to heart attacks and deaths) (BAAQMD, 2017a).[27] According to CARB, both PM_{10} and $PM_{2.5}$ can be inhaled, with some depositing throughout the airways.[28] PM_{10} is more likely to deposit on the surfaces of the larger airways of the upper region of the lung while $PM_{2.5}$ is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation.[29] Short-term (up to 24 hours duration) exposure to PM_{10} has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. The effects of long-term (months or years) exposure to PM_{10} are less clear, although studies suggest a link between long-term PM_{10} exposure and respiratory mortality and the International Agency for Research on Cancer published a review in 2015 that

23 Ibid.

24 CARB, 2019. Carbon Monoxide & Health. Available: https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health. Accessed January 8, 2019.

25 Ibid.

26 Ibid.

27 CARB, 2017. Inhalable Particulate Matter and Health (PM2.5 and PM10). Available: https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm, last reviewed August 10, 2017. Accessed January 8, 2019.

28 Ibid.

29 Ibid.

concluded that particulate matter in outdoor air pollution causes lung cancer.[30] Short-term exposure to $PM_{2.5}$ has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days and long-term exposure to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.[31] According to CARB, populations most likely to experience adverse health effects with exposure to PM_{10} and $PM_{2.5}$ include older adults with chronic heart or lung disease, children, and asthmatics.[32] Children and infants are susceptible to harm from inhaling pollutants such as PM_{10} and $PM_{2.5}$ compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems.[33]

Other Criteria Pollutants

Sulfur dioxide (SO_2) is a combustion product of sulfur or sulfur-containing fuels such as coal. SO_2 is also a precursor to the formation of atmospheric sulfate and particulate matter (both PM_{10} and $PM_{2.5}$) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. In the Bay Area, high concentrations of SO_2 are only a concern in areas close to refinery operations. According to the USEPA, short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult.[34] According to CARB, health effects at levels near the State one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity.[35] Exposure at elevated levels of SO_2 (above 1 ppm) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.[36] Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO_2.[37, 38]

Lead has a range of adverse neurotoxic health effects, and was formerly released into the atmosphere primarily via the combustion of leaded gasoline. The phase-out of leaded gasoline in California resulted in decreasing levels of atmospheric lead. In the Bay Area, high concentrations of lead are only a concern in areas close to general aviation airports. Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and

30 Ibid.
31 Ibid.
32 Ibid.
33 Ibid.
34
35 CARB, 2019. Sulfur Dioxide & Health. Available: https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health. Accessed January 8, 2019.
36 Ibid.
37 Ibid.
38 USEPA, 2018. Sulfur Dioxide (SO_2) Pollution. Available: https://www.epa.gov/so2-pollution/sulfur-dioxide-basics, last updated June 28, 2018. Accessed January 8, 2019.

the cardiovascular system, and affects the oxygen carrying capacity of blood.[39] The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage.[40] Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.[41]

39 USEPA, 2017. Lead Air Pollution. Available: https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution, last updated November 29, 2017. Accessed January 8, 2019.

40 CARB, 2019. Lead & Health. Available: https://ww2.arb.ca.gov/resources/lead-and-health. Accessed January 8, 2019.

41 Ibid.

CHAPTER 2
Modeling Methods and Assumptions

Construction Modeling

Project construction-related emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ exhaust (e.g., off-road equipment exhaust and on-road vehicle exhaust) were estimated primarily using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Additional calculations (i.e., emissions from vendor truck and haul truck idling) were prepared outside of CalEEMod to supplement the analysis. Detailed emission calculations are provided in Appendix A of this memo. Sections below present the primary assumptions used to model construction emissions. **Table 1**, **Project Characteristics**, shows the project's proposed land uses.

The following modeling methods and assumptions were used to estimate construction emissions.

1. Construction Schedule and Off-road Equipment

    a. Schedule

        i. **Table 2**, **Estimated Project Construction Schedule***,* shows the construction phasing schedule that is consistent with the HRA. The schedule is based on project-specific construction-phasing schedule provided by the City (including information provided by Costco) for Phase 1A and the total duration of Phase 1B and Phase 2.

    b. Off-road construction equipment

        i. **Table 3, Construction Equipment Fleet,** shows the off-road equipment fleet used in this analysis. The equipment list was estimated based on what the City (including information provided by Costco) provided for Phase 1A and the CalEEMod default fleet for various land uses for Phase 1B and Phase 2. Equipment horsepower and load factors are CalEEMod default values.

        ii. To calculate mitigated off-road construction emissions, all equipment greater than 50 horsepower was modeled as Tier 3 engines in the CalEEMod Construction mitigation tab.

2. On-road Sources

    a. Vendor and haul truck travel

        i. Daily vendor trips delivering materials and supplies to the project site would occur during all phases of construction. Consistent with the HRA, this analysis assumed a

total of 1,360 truck trips for soil import, 2,040 concrete truck trips, 3,330 vendor truck trips, and 39 paving truck trips over the entire construction duration for both Phase 1 and Phase 2. Phase 1A construction would require approximately 400 soil import truck trips, 600 concrete truck trips, 1,050 vendor truck trips, and 7 paving truck trips; Phase 1B construction would require approximately 340 soil import truck trips, 510 concrete truck trips, 970 vendor truck trips, and 11 paving truck trips; and Phase 2 construction would require 620 soil import truck trips, 930 concrete trucks, 1,310 vendor truck trips, and 21 paving truck trips (all numbers above refer to round-trips). The number of vendor trips is based on project-specific information provided by the applicant. Vendor trip lengths are the CalEEMod default of 7.3 miles.

b. Vendor truck and haul truck idling

   i. Idling activities would total 15 minutes per trip, representing three separate 5-minute idling occurrences: check-in to the site or queuing at the site boundary upon arrival, on-site idling during loading/unloading, and check-out of the site or queuing at the site boundary upon departure.

   ii. Idling emission rates for the heavy-heavy duty truck (HHDT) category were generated using the California Air Resources Board's (CARB) 2017 EMission FACtor (EMFAC2017) model.

c. Worker trips

   i. Daily worker trips traveling to the project site would occur during all phases of construction. The number of workers for each phase were estimated in CalEEMod based on the equipment quantities in each phase of construction.

   ii. Worker trip lengths are the CalEEMod default of 10.8 miles.

3. Architectural Coatings

   i. The analysis estimated emissions of reactive organic gases (ROG) from applications of architectural coatings (i.e., paint) using CalEEMod and the CalEEMod default emission factors.

TABLE 1
PROJECT CHARACTERISTICS

Phase	Land Use Values
Phase 1A	
Club Retail (Costco)	148,000 SF
Costco Gas Station	20 pumps
Phase 1B	
Hotel	231 rooms/ 132,000 SF
Retail	5,000 SF
Phase 2	
Retail	184,037 SF

TABLE 2
ESTIMATED PROJECT CONSTRUCTION SCHEDULE

Phase and Sub-Phase	Start Date	End Date	Workdays[a]
Phase 1A			
Phase 1A-Grading/Excavation	4/6/2020	5/10/2020	30
Phase 1A-Drainage/Utilities/Sub-Grade	4/22/2020	4/29/2020	7
Phase 1A-Foundations/Concrete Pour	4/29/2020	5/15/2020	15
Phase 1A-Building Construction	5/16/2020	7/24/2020	60
Phase 1A-Architectural Coatings	5/28/2020	7/24/2020	50
Phase 1A-Paving	7/17/2020	7/24/2020	7
Phase 1B			
Phase 1B-Grading/Excavation	4/6/2020	6/15/2020	51
Phase 1B-Drainage/Utilities/Sub-Grade	6/16/2020	6/30/2020	11
Phase 1B-Foundations/Concrete Pour	7/1/2020	7/30/2020	22
Phase 1B-Building Construction	7/31/2020	2/23/2021	148
Phase 1B-Architectural Coatings	2/24/2021	3/20/2021	18
Phase 1B-Paving	3/21/2021	4/5/2021	11
Phase 2			
Phase 2-Demolition	1/7/2030	2/3/2030	20
Phase 2-Grading/Excavation	2/4/2030	3/2/2030	20
Phase 2-Drainage/Utilities/Sub-Grade	3/3/2030	4/6/2030	25
Phase 2-Foundations/Concrete Pour	4/6/2030	4/28/2030	15
Phase 2-Building Construction	4/30/2030	11/11/2030	140
Phase 2-Architectural Coatings	11/12/2030	12/9/2030	20
Phase 2-Paving	12/10/2030	1/7/2031	21

NOTES:
[a] Phase 1A construction would occur 6 days per week and Phases 1B and 2 would occur 5 days per week.

SOURCE: ESA 2019

TABLE 3
CONSTRUCTION EQUIPMENT FLEET

Phase/Equipment Type	Number of Equipment	Engine Horsepower
Phase 1A		
Air Compressors	1	78
Cement and Mortar Mixers	60	9
Dumpers/Tenders	1	16
Forklifts	3	89
Generator Sets	2	84
Graders	3	187
Off-Highway Tractors	16	124

Off-Highway Trucks	6	402
Paving Equipment	2	132
Pumps	1	84
Rollers	6	80
Rubber Tired Dozers	1	247
Scrapers	6	367
Skid Steer Loaders	3	65
Tractors/Loaders/Backhoes	1	97
Welders	1	46
Phase 1B		
Air Compressors	1	78
Cranes	2	231
Excavators	1	158
Forklifts	7	89
Generator Sets	2	84
Graders	1	187
Off-Highway Trucks	1	402
Pavers	2	130
Paving Equipment	2	132
Pumps	1	84
Rollers	2	80
Rubber Tired Dozers	4	247
Tractors/Loaders/Backhoes	13	97
Welders	2	46
Phase 2		
Air Compressors	1	78
Concrete/Industrial Saws	1	81
Cranes	2	231
Excavators	3	158
Forklifts	6	89
Generator Sets	2	84
Graders	2	187
Off-Highway Trucks	2	402
Pavers	2	130
Paving Equipment	2	132
Pumps	1	84
Rollers	2	80
Rubber Tired Dozers	5	247
Scrapers	6	367
Tractors/Loaders/Backhoes	12	97

Welders	1	46

Operational Modeling

This analysis used CalEEMod version 2016.3.2 to estimate operational emissions associated with project trips (light-duty vehicles), energy consumption, and miscellaneous area sources including natural gas combustion and consumer products. Additional operational emission calculations were prepared outside of CalEEMod, including those for the gas station, emergency generators, delivery trucks, and transportation refrigeration units (TRU). Detailed calculations are presented in Appendix A. The primary assumptions used to model operational emissions are presented below.

1. Mobile Sources – non-delivery vehicles

    a. Mobile source emissions were calculated using CalEEMod and Project-specific trip rates. Compared to the land uses in the traffic study, the square footage of some land uses have changed slightly, therefore, the trip rates in the Project's traffic study were prorated based on square footage for each land use.[42]

    b. The CalEEMod default fleet mix was modified to include all vehicle types except heavy-heavy-duty (HHD) trucks because emissions for HHD trucks are calculated separately as described below.

2. Energy and Area Sources

    a. Emissions from natural gas combustion in heaters and boilers and miscellaneous area sources, including landscaping equipment, consumer products, paint and other architectural coatings, were generated using CalEEMod. Emissions were based on the square footage of the proposed land uses. Default CalEEMod energy usage rates were used in the modeling. Since most of the project's land uses are commercial and would not be associated with extensive consumer product use (such as hairsprays and aerosols), this analysis assumed consumer product emissions would only be attributed to the hotel land use.

3. Gas Station

    a. Stationary emission sources

        i. This analysis assumes the gas station will comply with the best achievable control technology (BACT) and use enhanced Phase I and Phase II vapor recovery systems (EVR). Emissions from stationary sources at the gas station were calculated based on the annual gasoline throughput of approximately 26,640,000 gallons, as provided by the City, and the CARB recommended total organic gases (TOG) emission factors for EVR systems.[43]

[42] Johnson Drive Economic Development Zone Transportation Impact Analysis, Fehr & Peers, 2015.

[43] Revised Emissions Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities. December 23, 2013 (CARB, 2013)., Fehr & Peers, 2015.

b. Mobile emission sources

i. In addition to emissions associated with fuel delivery trucks and customer trips as discussed above for operational mobile sources, this analysis also included tailpipe ROG emissions from customer vehicle queuing/idling and startup. It was assumed each customer vehicle will idle at the gas station for a total of 10 minutes. This is a conservative assumption which is likely to overestimate the average customer idling time and idling-related emissions. The idling emission factors for customer vehicles at gas station were derived from EMFAC2017 emission factor for gasoline-fueled light-duty vehicles at 5 miles per hour (mph).

4. Emergency Generators

a. The analysis assumed the Costco and hotel would each have a diesel emergency generator. The generators would be located at ground level. Each generator would have a rating of 1,300 horsepower (1,000 kilowatts). Diesel-powered emergency generator emissions were estimated outside of CalEEMod using emissions limits established for new stationary emergency standby diesel-fueled internal combustion engines in CARB's Airborne Toxic Control Measure for Stationary Compression Ignition Engines final regulation for model year 2008 and newer engines of HP > 750.[44] Emissions were estimated based on a maximum annual non-emergency operation schedule of 50 hours each, consistent with emergency standby engine testing limits established in BAAQMD Regulation 9-8-330.3.

5. Delivery Truck Travel and Idling

a. This study conservatively assumed the delivery truck trips were additional to the project traffic estimated in the traffic study, i.e., all trips in the traffic study were assumed to be non-HHD vehicle trips and have already been accounted for in the non-delivery vehicles mobile source category above.

b. Daily delivery truck vehicle trip emissions were estimated outside of CalEEMod using emission factors from EMFAC2017 for the HHDT vehicle category. It was assumed that all trucks were diesel-powered. The Costco delivery truck fleet has an average model year of 2016 based on information provided by the City; therefore, emission factors for model year 2016 were applied to Costco delivery trucks. Non-Costco delivery trucks utilized emission factors based on an aggregate model year from EMFAC2017.

c. The number of daily delivery trucks for Phase 1A were provided by the City. Delivery trucks for Phase 1B and Phase 2 were estimated based on the Project's traffic study and the CalEEMod default fleet percentage for the HHDT vehicle category. Number of truck trips were estimated by multiplying the traffic study's daily trip rate by the HHDT portion of the CalEEMod fleet mix.[45] The number of trucks operating per day (i.e. round trips) are shown below in **Table 4**, **Daily Truck Deliveries**.

d. Travel emissions for Costco delivery trucks, including warehouse and gasoline fuel trucks, were based on travel distances to their respective distribution facilities which were

[44] California Air Resources Board. 2011. Final Regulation Order: *Airborne Toxic Control Measure For Diesel Particulate Matter From Portable Engines Rated At 50 Horsepower And Greater*. February 11. Available at https://www.arb.ca.gov/portable/perp/perpatcm.pdf. Accessed January 2019.

[45] Johnson Drive Economic Development Zone Transportation Impact Analysis, Fehr & Peers, 2015.

provided by the City. Costco warehouse trucks delivering goods to Costco have an estimated trip length of 24.5 miles based on the distance to the Tracy depot facility. Costco trucks delivering fuel to the gas station have an estimated trip length of 30 miles based on the distance to the nearest fuel delivery location in Benicia. Travel emissions for non-Costco delivery trucks were estimated assuming 7.3 miles per trip, which is the CalEEMod default trip length for "commercial-nonwork" trip types. Commercial-nonwork trips represent trips associated with commercial land uses other than customers or workers, such as delivery vehicles of goods.[46]

e. Idling emissions were estimated assuming 15 minutes of idling per trip, representing three separate 5-minute idling occurrences: check-in to the site or queuing at the site boundary upon arrival, on-site idling during loading/unloading, and check-out of the site or queuing at the site boundary upon departure.

f. Starting emissions were estimated based on the total number of trips for delivery trucks.

6. Transportation Refrigeration Units (TRUs)

a. Delivery trucks would generate exhaust emissions from the use of truck-mounted diesel-powered TRUs. Consistent with the HRA, it was assumed that 75 percent of Costco trucks, 25 percent of all other project trucks (including hotel and retail delivery trucks) operate a TRU for two hours per trip on any given day. TRU emissions were based on emission factors from CARB's ATCM and Tier 4 Final standards for diesel engines.

TABLE 4
DAILY TRUCK DELIVERIES [a]

Source	Trucks per Day (round trips) [b]
Phase 1	
Costco Store	10
Costco Gas Station	6
Hotel/Retail	29
Phase 2	
Retail	83

NOTES:

[a] Daily trucks for the Costco store, and the Costco gas station were based on information from the City (including information provided by Costco). Daily trucks for the hotel and retail land uses were based on the daily trips generated by these land uses, as supplied by the SEIR's Traffic Study, and multiplied by the HHDT default fleet mix percentage from CalEEMod.

[b] The total number of trucks per day represents the number of daily round-trip truck trips assumed in the modeling.

Source: ESA 2019

46 CalEEMod User's Guide, Appendix A, p.21, http://caleemod.com/. Accessed January 2019.

CHAPTER 3
Results

This section summarizes the results of the construction and operations analysis for the Project. Detailed calculations and modeling files are attached in Appendix A.

Construction Emissions

Table 5, Average Daily Unmitigated Construction Emissions by Source, presents the average daily unmitigated construction emissions by source (e.g., off-road equipment). Threshold exceedances are shown in bold text (the BAAQMD thresholds are 54 pounds per day of ROG, NO_X, and $PM_{2.5}$ exhaust and 82 pounds per day of PM_{10} exhaust). As shown, except for the unmitigated NO_X emissions during Phase 1, construction emissions are below the applicable BAAQMD significance thresholds. The average daily NO_X emissions for Phase 1 are 55.7 lbs/day, exceeding the BAAQMD threshold of 54 lbs/day. Therefore, mitigation is required to reduce Phase 1 construction emissions. Compared to the conclusion of less than significant for all criteria pollutants in Draft SEIR regarding construction emissions, the changed conclusion in this updated analysis can be attributed to the updated project details including square footage of some proposed land uses, construction phasing, off-road construction equipment fleets, and truck trips.

TABLE 5
AVERAGE DAILY UNMITIGATED CONSTRUCTION EMISSIONS BY SOURCE

	Average Daily Emissions (pounds/day) [a]			
Phase / Source [b]	**ROG**	**NO_X**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Phase 1				
Off-Road Equipment	4.76	46.85	2.27	2.12
Paving	0.46	0.00	0.00	0.00
Architectural Coating	11.73	0.00	0.00	0.00
Hauling - travel	0.23	8.20	0.03	0.03
Hauling - idling	0.02	0.29	0.00	0.00
Vendor Trucks	0.00	0.00	0.00	0.00
Worker Trips	0.56	0.40	0.01	0.01
Phase Subtotal	17.76	**55.74**	2.31	2.16
BAAQMD Thresholds	54	54	82	54
Threshold Exceeded?	No	**Yes**	No	No
Phase 2				

Off-Road Equipment	1.88	9.72	0.26	0.26
Paving	0.24	0.00	0.00	0.00
Architectural Coating	8.03	0.00	0.00	0.00
Hauling - travel	0.10	3.16	0.01	0.01
Hauling - idling	0.01	0.18	0.00	0.00
Vendor Trucks	0.00	0.00	0.00	0.00
Worker Trips	0.31	0.16	0.01	0.01
Phase Subtotal	10.58	13.22	0.28	0.28
BAAQMD Thresholds	54	54	82	54
Threshold Exceeded?	No	No	No	No

NOTES:

[a] **Bold values** = threshold exceedance

[b] Categories defined as follows:

Off-Road Equipment = operating emissions from heavy-duty equipment, such as bulldozers, cranes, and excavators. Refer to Tables 3 for equipment activity assumptions. Emissions were modeled using CalEEMod.
Paving = Fugitive ROG emissions from asphalt paving. Emissions were modeled using CalEEMod.
Architectural Coatings = Fugitive ROG emissions from the application of architectural coatings. Emissions were modeled using CalEEMod.
Vendor/Hauling - travel = Travel emissions from heavy-duty on-road vendor/haul trucks. Emissions were modeled using CalEEMod.
Vendor/Haul Truck idling = Operating emissions from heavy-duty on-road vendor trucks. The analysis assumed that each haul truck would idle 15 minutes while unloading soil or material on the project site. Emissions were modeled outside CalEEMod using EMFAC2017 emission factors.
Worker Trips = Operating emission from employee vehicles. Emissions were modeled using CalEEMod.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
CalEEMod = CALifornia Emissions Estimator MODel

SOURCE: ESA, 2019

As shown in Table 5 above, the average daily unmitigated construction emissions of NOx for Phase 1 would exceed the BAAQMD threshold of 54 lbs/day and mitigation measures are required. Consequently, implementation of **Mitigation Measure M-AQ-1** would require all construction equipment greater than 50 horsepower to meet USEPA Tier 3 engine emissions standards. With implementation of Mitigation Measure AQ-1, Phase 1 construction emissions of NO_X would be reduced to 41.9 lbs/day, below the BAAQMD threshold, as shown below in **Table 6, Average Daily Mitigated Construction Emissions by Source**. Therefore, Phase 1 construction impacts would be reduced to a less-than-significant level with mitigation. Construction-period emissions of other criteria pollutants would be below BAAQMD thresholds during Phase 1.

As also shown in Table 5, average daily unmitigated construction emissions for Phase 2 would not exceed the BAAQMD thresholds for any of the criteria pollutants, and therefore no mitigation would be required for Phase 2 construction.

TABLE 6
AVERAGE DAILY MITIGATED CONSTRUCTION EMISSIONS BY SOURCE

	Average Daily Emissions (pounds/day) [a]			
Phase / Source [b]	**ROG**	**NO_X**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Phase 1				
Off-Road Equipment	2.08	33.04	1.70	1.70
Paving	0.46	0.00	0.00	0.00
Architectural Coating	11.73	0.00	0.00	0.00
Hauling - travel	0.23	8.20	0.03	0.03
Hauling - idling	0.02	0.29	0.00	0.00
Vendor Trucks	0.00	0.00	0.00	0.00
Worker Trips	0.56	0.40	0.01	0.01
Phase Subtotal	15.09	41.93	1.73	1.73
BAAQMD Thresholds	54	54	82	54
Threshold Exceeded?	No	No	No	No

NOTES:
[a] **Bold values** = threshold exceedance
[b] Categories defined as follows:
Off-Road Equipment = operating emissions from heavy-duty equipment, such as bulldozers, cranes, and excavators. Refer to Tables 3 for equipment activity assumptions. Emissions were modeled using CalEEMod.
Paving = Fugitive ROG emissions from asphalt paving. Emissions were modeled using CalEEMod.
Architectural Coatings = Fugitive ROG emissions from the application of architectural coatings. Emissions were modeled using CalEEMod.
Vendor/Hauling - travel = Travel emissions from heavy-duty on-road vendor/haul trucks. Emissions were modeled using CalEEMod.
Vendor/Haul Truck idling = Operating emissions from heavy-duty on-road vendor trucks. The analysis assumed that each haul truck would idle 15 minutes while unloading soil or material on the project site. Emissions were modeled outside CalEEMod using EMFAC2017 emission factors.
Worker Trips = Operating emission from employee vehicles. Emissions were modeled using CalEEMod.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
CalEEMod = CALifornia Emissions Estimator MODel

SOURCE: ESA, 2019

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities could cause wind-blown dust that would contribute particulate matter into the local atmosphere. Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Depending on exposure, adverse health effects can occur due to particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil or the demolished buildings. Additional potential health effects related to exposure to particulate matter are discussed in Chapter 1.

Rather than quantifying fugitive dust emissions to evaluate impacts, BAAQMD emphasizes the implementation of appropriate mitigation measures for dust control during all construction activities. The BAAQMD Guidelines provide feasible control measures for construction emission of PM_{10} and implementation of these measures would ensure that construction impacts from fugitive dust would be less than significant. The BAAQMD recommended dust control measures are listed in DSEIR **Mitigation Measure 4.B-1**. With the implementation of this Mitigation Measure, the Project's fugitive dust impacts would be mitigated to less than significant.

Mitigation of Construction-Related Air Quality Impacts

To address NO_X emissions that would exceed significance thresholds during construction of the proposed project, **Mitigation Measure M-AQ-1, Construction Emissions Minimization** has been identified and would apply during all construction phases.

> **Mitigation Measure M-AQ-1: Construction Emissions Minimization.** The project sponsor or the project sponsor's contractor shall comply with the following:
>
> 1. All off-road equipment (including water construction equipment used onboard barges) greater than 50 horsepower shall have engines that meet Tier 3 off-road emission standards.
> 2. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.
> 3. The contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

Operational Emissions

Due to the phasing of Project construction, there are three potential operational emissions scenarios: (1) operation upon Phase 1 buildout in 2021 (Phase 1 Operation); (2) Phase 1 operation plus Phase 2 construction in 2030 (Phase 1 Operation + Phase 2 Construction); and (3) operation of full Project buildout in 2031 of Phase 1 and Phase 2 (Full Operation). The Draft SEIR only evaluated emissions for full-buildout of the Project, which was originally anticipated to occur by 2020. Because the Project is now anticipated to be constructed in two phases, emissions for each phase are presented below.

Overall, the Draft SEIR's estimation of full buildout operational criteria pollutants emissions concluded that buildout would result in significant and unavoidable impacts for NOx and PM_{10}, whereas this updated analysis indicates less than significant impacts for all operational scenarios including the full buildout operations. There are a number of reasons for this difference, including

the use of an updated version of CalEEMod, updated vehicle trips, revised vehicle fleet for project-generated traffic, additional emissions for light-duty vehicle idling at the gas station, new calculations for heavy-duty delivery vehicle traveling and idling using the EMFAC2017 model, revised buildout year (2031 vs. 2025), additional emissions for TRUs and fugitive ROG emissions at the gas station, incorporation of the 2019 Title 24 energy standards, and revised consumer product emissions. These differences are further discussed below.

Phase 1 Operation

Phase 1 operation would start in year 2021 and no new project activity is assumed to be added until year 2030 when Phase 2 construction starts. Given the general trend of more stringent environmental regulations and the advancement of cleaner technologies for future years, year 2021 is likely the highest emissions year for Phase 1 operation. **Table 7, Phase 1 (2021) Average Daily Unmitigated Operational Emissions by Source**, and **Table 8, Phase 1 (2021) Total Annual Unmitigated Operational Emissions by Source,** present the average daily and total annual uncontrolled operational emissions by source for the 2021 Phase 1 Operation scenario, respectively. As shown in Table 7, total ROG emissions would exceed the BAAQMD significance threshold of 54 pounds per day. Therefore, mitigation is required to reduce ROG emissions. All other pollutants would be below the applicable BAAQMD significance thresholds.

TABLE 7
PHASE 1 (2021) AVERAGE DAILY UNMITIGATED OPERATIONAL EMISSIONS BY SOURCE

	Average Daily Emissions (pounds/day)			
Source [a]	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	3.71	0.00	0.00	0.00
Energy	0.14	1.23	0.09	0.09
Non-Delivery Vehicles (Running)	13.91	36.32	54.42	14.91
Light-Duty Vehicles (Idling at Gas Station)	0.30	0.38	0.03	0.03
Delivery Vehicles (Running + Starting)	0.16	8.10	0.38	0.20
Delivery Vehicles (Idling)	0.06	0.82	0.00	0.00
TRUs	0.23	3.39	0.02	0.02
Gas Station (Evaporative)	35.90	0.00	0.00	0.00
Costco Generator	0.09	1.37	0.04	0.04
Hotel Generator	0.09	1.37	0.04	0.04
Total	***54.60***	*52.99*	*55.03*	*15.34*
BAAQMD Thresholds	54	54	82	54
Thresholds Exceeded?	Yes	No	No	No

NOTES:

[a] Categories defined as follows:
Area = Emissions from landscaping equipment, consumer products, and architectural coatings. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod. Consumer product emissions are only attributed to the hotel land use.
Energy = Emissions from natural gas combustion for space heating and cooking. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod.
Non-Delivery vehicles (running) = Operating emissions from daily commercial non-delivery vehicle trips. Emission from these trips were estimated using CalEEMod.

Light-duty vehicles (idling at gas station)-Idling emissions from autos queueing in line at gas station. Emissions estimated using EMFAC2017 emissions factors and an idling time of 10 minutes.
Delivery Vehicles (Running + Starting) = Operating emissions from daily commercial delivery vehicle trips. Refer to Table 4 for the daily vehicle trips for each land use type. Emissions were estimated using emission factors from EMFAC2017.
Delivery Vehicles (Idling) = Operating emissions from daily commercial delivery vehicles idling. Emissions were estimated using emission factors from EMFAC2017 and an idling duration of 15 minutes.
Transportation Refrigeration Units (TRUs) = Operating emissions from daily TRU usage at commercial land uses. Emissions were estimated outside of CalEEMod using emission factors from ARB's ATCM and Tier 4 Final emission standards for diesel engines.
Gas Station (Evaporative) = Operating daily evaporative ROG emissions from the gas station, which includes underground storage tank loading and breathing, as well as refueling and fuel spillage.
Costco and Hotel Generators = Operating emissions from diesel-powered emergency generators.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
CalEEMod = CALifornia Emissions Estimator MODel
TRU = transportation refrigeration unit
EMFAC2017 = the California Air Resources Board's EMission FACtors Model, 2017 version

SOURCE: ESA,2019

TABLE 8
PHASE 1 (2021) TOTAL ANNUAL UNMITIGATED OPERATIONAL EMISSIONS BY SOURCE

	Total Annual Emissions (tons/year)			
Source [a]	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	0.68	0.00	0.00	0.00
Energy	0.02	0.23	0.02	0.02
Light-Duty Vehicles (Running)	2.54	6.63	9.93	2.72
Light-Duty Vehicles (Idling at Gas Station)	0.06	0.07	0.01	0.01
Heavy Duty Trucks (Running + Starting)	0.03	1.48	0.07	0.04
Heavy Duty Trucks (Idling)	0.01	0.15	0.00	0.00
TRUs	0.04	0.62	0.00	0.00
Gas Station (Evaporative)	6.55	0.00	0.00	0.00
Costco Generator	0.02	0.25	0.01	0.01
Hotel Generator	0.02	0.25	0.01	0.01
Total	*9.96*	*9.67*	*10.04*	*2.80*
BAAQMD Thresholds	10	10	15	10
Thresholds Exceeded?	No	No	No	No

NOTES:
[a] Categories defined as follows:
Area = Emissions from landscaping equipment, consumer products, and architectural coatings. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod. Consumer product emissions are only attributed to the hotel land use.
Energy = Emissions from natural gas combustion for space heating and cooking. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod.
Non-Delivery vehicles (running) = Operating emissions from daily commercial non-delivery vehicle trips. Emission from these trips were estimated using CalEEMod.
Light-duty vehicles (idling at gas station)-Idling emissions from autos queueing in line at gas station. Emissions estimated using EMFAC2017 emissions factors and an idling time of 10 minutes.
Delivery Vehicles Trucks (Running + Starting) = Operating emissions from daily commercial delivery vehicle trips. Refer to Table 4 for the daily vehicle trips for each land use type. Emissions were estimated using emission factors from EMFAC2017.
Delivery Vehicles Trucks (Idling) = Operating emissions from daily commercial delivery vehicles idling. Emissions were estimated using emission factors from EMFAC2017 and an idling duration of 15 minutes.

Transportation Refrigeration Units (TRUs) = Operating emissions from daily TRU usage at commercial land uses. Emissions were estimated outside of CalEEMod using emission factors from ARB's ATCM and Tier 4 Final emission standards for diesel engines.
Gas Station (Evaporative) = Operating daily evaporative ROG emissions from the gas station, which includes underground storage tank loading and breathing, as well as refueling and fuel spillage.
Costco and Hotel Generators = Operating emissions from diesel-powered emergency generators.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
CalEEMod = CALifornia Emissions Estimator MODel
TRU = transportation refrigeration unit
EMFAC2017 = the California Air Resources Board's EMission FACtors Model, 2017 version

SOURCE: ESA, 2019

As shown in Table 7 above, the average daily unmitigated operational emissions of ROG for Phase 1 would exceed the BAAQMD threshold of 54 lbs/day and mitigation measures would be required. Consequently, implementation of **Mitigation Measure M-AQ-2** will require that all future tenants and building owners for Phase 1 land uses use low-VOC paints during maintenance activities. The VOC content of paints shall not exceed 10 grams of VOCs per liter. With implementation of Mitigation Measure M-AQ-2, Phase 1 ROG emissions would be 53.85 lbs/day which is below the BAAQMD threshold of 54 lbs/day, as presented in **Table 9, Phase 1 (2021) Average Daily Mitigated Operational Emissions by Source.** Therefore, with mitigation, Phase 1 operational impacts would be reduced to a less-than-significant level. As noted above, Operational emissions of other criteria pollutants would be below applicable BAAQMD thresholds during Phase 1.

TABLE 9
PHASE 1 (2021) AVERAGE DAILY MITIGATED OPERATIONAL EMISSIONS BY SOURCE

	Average Daily Emissions (pounds/day)			
Source [a]	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	2.96	0.00	0.00	0.00
Energy	0.14	1.23	0.09	0.09
Non-Delivery Vehicles (Running)	13.91	36.32	54.42	14.91
Light-Duty Vehicles (Idling at Gas Station)	0.30	0.38	0.03	0.03
Delivery Vehicles (Running + Starting)	0.16	8.10	0.38	0.20
Delivery Vehicles (Idling)	0.06	0.82	0.00	0.00
TRUs	0.23	3.39	0.02	0.02
Gas Station (Evaporative)	35.90	0.00	0.00	0.00
Costco Generator	0.09	1.37	0.04	0.04
Hotel Generator	0.09	1.37	0.04	0.04
Total	*53.85*	*52.99*	*55.03*	*15.34*
BAAQMD Thresholds	54	54	82	54
Thresholds Exceeded?	No	No	No	No

NOTES:

[a] Categories defined as follows:

Area = Emissions from landscaping equipment, consumer products, and architectural coatings. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod. Consumer product emissions are only attributed to the hotel land use.

Energy = Emissions from natural gas combustion for space heating and cooking. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod.

Non-Delivery vehicles (running) = Operating emissions from daily commercial non-delivery vehicle trips. Emission from these trips were estimated using CalEEMod.

Light-duty vehicles (idling at gas station)-Idling emissions from autos queueing in line at gas station. Emissions estimated using EMFAC2017 emissions factors and an idling time of 10 minutes.

Delivery Vehicles (Running + Starting) = Operating emissions from daily commercial delivery vehicle trips. Refer to Table 4 for the daily vehicle trips for each land use type. Emissions were estimated using emission factors from EMFAC2017.

Delivery Vehicles (Idling) = Operating emissions from daily commercial delivery vehicles idling. Emissions were estimated using emission factors from EMFAC2017 and an idling duration of 15 minutes.

Transportation Refrigeration Units (TRUs) = Operating emissions from daily TRU usage at commercial land uses. Emissions were estimated outside of CalEEMod using emission factors from ARB's ATCM and Tier 4 Final emission standards for diesel engines.

Gas Station (Evaporative) = Operating daily evaporative ROG emissions from the gas station, which includes underground storage tank loading and breathing, as well as refueling and fuel spillage.

Costco and Hotel Generators = Operating emissions from diesel-powered emergency generators.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
CalEEMod = CALifornia Emissions Estimator MODel
TRU = transportation refrigeration unit
EMFAC2017 = the California Air Resources Board's EMission FACtors Model, 2017 version

SOURCE: ESA,2019

Mitigation of Phase 1 Operational-Related Air Quality Impacts

To address ROG emissions that would exceed significance thresholds during operation of Phase 1, **Mitigation Measure M-AQ-2, Low-VOC Architectural Coatings** has been identified and would apply during operation of Phase 1.

> **Mitigation Measure M-AQ-2: Low-VOC Architectural Coatings.** The project sponsor shall require that all future tenants at the Project site use low- and super-compliant VOC architectural coatings during any maintenance or repainting activities. "Low-VOC" refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District rule 1113; however, many manufacturers have reformulated to levels well below these limits. These are referred to as "Super-Compliant" architectural coatings.

Phase 1 Operation plus Phase 2 Construction (2030-2031)

Table 10, Average Daily Unmitigated Construction Plus Operational Emissions, and **Table 11, Total Annual Unmitigated Construction Plus Operational Emissions**, present the average daily and total annual uncontrolled emissions by source (e.g., area) for the Phase 1 Operation plus Phase 2 Construction scenario, respectively. Upon Phase 2 construction commencing in 2030, all existing land uses would be removed along with their associated operational emissions. Therefore, the analysis takes into account daily and annual emissions from approximately 224,688 square feet of existing uses within the EDZ area. Emissions associated with existing land uses were subtracted from total project emissions at full buildout to determine the *net* emissions

associated with the Project.[47] The resulting net emissions are compared to the BAAQMD significance thresholds.

As shown in Tables 10 and 11, all criteria pollutant emissions are below the below the applicable BAAQMD significance thresholds and no mitigation is required.

TABLE 10
AVERAGE DAILY UNMITIGATED CONSTRUCTION PLUS OPERATIONAL EMISSIONS

	Average Daily Emissions (pounds/day)			
Source	**ROG**	**NO_X**	**PM_{10} [a]**	**$PM_{2.5}$ [a]**
Phase 2 Construction	10.58	13.22	0.28	0.28
Phase 1 Operation	48.97	36.98	54.78	15.12
Construction + Operation Subtotal	59.54	50.20	55.06	15.40
Existing Operational Emissions [b]	13.00	27.00	10.00	3.00
Net Project Emissions [c]	*46.54*	*23.20*	*45.06*	*12.40*
BAAQMD Thresholds	54	54	82	54
Thresholds Exceeded?	No	No	No	No

NOTES:
[a] Construction emissions of PM_{10} and $PM_{2.5}$ are exhaust emissions only; operational emissions of PM_{10} and $PM_{2.5}$ are exhaust and fugitive dust.
[b] Existing emissions obtained from the Air Quality section of the Draft SEIR.
[c] Net Project Emissions = construction + operation subtotal for the Project minus existing operational emissions.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, 2019

TABLE 11
TOTAL ANNUAL UNMITIGATED CONSTRUCTION PLUS OPERATIONAL EMISSIONS

	Total Annual Emissions (tons/year)			
Source	**ROG**	**NO_X**	**PM_{10} [a]**	**$PM_{2.5}$ [a]**
Phase 2 Construction	1.39	1.73	0.04	0.04
Phase 1 Operation	8.94	6.75	10.00	2.76
Construction + Operation Subtotal	10.32	8.48	10.03	2.80
Existing Operational Emissions [b]	2.00	4.00	2.00	1.00
Net Project Emissions [c]	*8.32*	*4.48*	*8.03*	*1.80*
BAAQMD Thresholds	10	10	15	10
Thresholds Exceeded?	No	No	No	No

[47] Per BAAQMD guidelines, and consistent with CEQA's requirement to analyze the project-generated change from existing conditions, because the Project will remove existing uses, this analysis subtracts existing emissions from the emissions associated with the Project when comparing emissions to the thresholds.

NOTES:

[a] Construction emissions of PM_{10} and $PM_{2.5}$ are exhaust emissions only; operational emissions of PM_{10} and $PM_{2.5}$ are exhaust and fugitive dust.

[b] Existing emissions obtained from the Air Quality section of the Draft SEIR.

[c] Net Project Emissions = construction + operation subtotal for the Project minus existing operational emissions.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

SOURCE: ESA, 2019

Full Buildout Operation (2031)

Table 12, Full Buildout (2031) Average Daily Unmitigated Operational Emissions by Source and **Table 13, Full Buildout (2031) Total Annual Unmitigated Operational Emissions by Source**, below present average daily and total annual uncontrolled operational emissions by source (e.g., area) for the Full Buildout Operation (2031) scenario, respectively. As part of the Project's development, existing land uses would be removed, along with their associated operational emissions. Therefore, the analysis compares the Project's net emissions (Project minus Existing) to the thresholds. As shown, emissions during full buildout operations are below the applicable BAAQMD significance thresholds, potential impact would therefore be less than significant and mitigation measures are not needed.

Overall, the Draft SEIR's estimation of full buildout operational criteria pollutants emissions concluded that buildout would result in significant and unavoidable impacts for NO_X and PM_{10}, whereas this updated analysis indicates less than significant impacts for all operational scenarios including the full buildout operations. A comparison of emissions from the Draft SEIR and the updated analysis is presented in **Table 14, Comparison of Full Buildout Total Annual Unmitigated Operational Emissions by Source for the Updated Analysis (2031) with the Draft SEIR (2025)**, below. Compared to the Draft SEIR, the updated criteria pollutant emissions analysis includes the following major modeling revisions (additional detail on these methods is provided in Chapter 2 above):

1. Updated vehicle trips were included in the modeling, based on the DEIR traffic study and revised land use values for retail and hotel. This results in slightly fewer overall vehicle trips and slightly lower mobile source emissions compared to the Draft SEIR.

2. Mobile source emissions from project-related vehicle traffic was calculated in CalEEMod for all vehicle types except heavy-heavy-duty (HHD) delivery vehicles. Heavy-duty truck trips were separately modeled outside of CalEEMod using the EMFAC2017 model and added to the trips estimated in the Project's traffic study. The EMFAC2017 emission factors for heavy-duty trucks for ROG and NO_X are lower than the EMFAC2014 emission factors as used in the Draft SEIR, resulting in a decrease in mobile source ROG and NO_X emissions for the Project as compared to the Draft SEIR.

3. Mobile source tailpipe ROG emissions from customer vehicle queuing/idling and startup at the proposed gas station were included in this updated analysis, consistent with the HRA. The Draft SEIR did not include these emissions. This results in an increase in ROG emissions for mobile sources as compared to the Draft SEIR.

4. Emissions from heavy-duty delivery vehicles (including both traveling and idling emissions) were calculated separately from the Project's traffic study trip rates based on truck trip figures for Phase 1 developed in consultation with the Project sponsor (see Chapter 2 for additional discussion) and for Phase 2 using the Project's traffic study trip rates and default CalEEMod heavy-duty vehicle fleet mix. This is consistent with the HRA. This approach differs from the 2014 DEIR which used the default CalEEMod fleet mix for all Project trips as provided in the traffic study, including heavy-duty vehicles and buses. The updated modeling approach reflects a more accurate method of estimating emissions from heavy-duty delivery vehicles than was conducted in the Draft SEIR. This results in an overall decrease in emissions for mobile sources as compared to the Draft SEIR.

5. The Draft SEIR assumed a full buildout year of 2025 for the Project. The revised analysis assumes a 2031 full buildout year. The later buildout year reflects lower vehicle emission rates, as vehicles are cleaner and more efficient in 2031 vs. 2025. This difference is a direct product of the EMFAC2014 model as used in CalEEMod, and is a consequence of continuing improvements in vehicle efficiency, and a concomitant decrease in emissions, over time. This change results in reduced mobile source criteria pollutant emissions as compared to the Draft SEIR.

6. The Draft SEIR used CalEEMod version 2013.2.2, while the updated criteria pollutant emissions analysis uses CalEEMod version 2016.3.2. There are inherent differences in the two models, including some bug fixes, resulting in different emissions for many sources. For example, CalEEMod version 2016.3.2 incorporates EMFAC2014, while version 2013.2.2 incorporates EMFAC2011; therefore, version 2016.3.2 utilizes updated and more current and more accurate emission factors for vehicles and more accurate fleet mix values based on updated DMV registration data. The change in emissions as compared to the Draft SEIR depends on the emissions source.

7. CalEEMod version 2013.2.2 (as used in the Draft SEIR) incorporates 2008 Title 24 Energy Efficiency Standards, whereas CalEEMod version 2016.3.2 incorporates 2016 Title 24 Energy Efficiency Standards.[48] Furthermore, the revised analysis updated the energy intensity values in CalEEMod to reflect 2019 Title 24 Energy Efficiency Standards, resulting in a 30% reduction in nonresidential energy use as compared to the 2016 Title 24 Energy Efficiency Standards.[49] This change results in reductions in natural

[48] CalEEMod 2013.2.2 User's Guide, Appendix A: Calculation Methods for CalEEMod, p.31. Available at http://caleemod.com/. Accessed February 2019.

[49] California Energy Commission. N.d. *2016 Building Energy Efficiency Standards Frequently Asked Questions*. Available at https://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed February 2019.

gas consumption for building heating and associated criteria pollutant emissions as compared to the Draft SEIR.

8. Emissions were calculated for two emergency diesel generators; one at the Costco warehouse and one in the hotel. The Draft SEIR did not include emissions from emergency diesel generators as none were specifically identified at the time the Draft SEIR was prepared. This results in an increase in criteria pollutant emissions for stationary sources as compared to the Draft SEIR.

9. Emissions were also calculated for truck-mounted diesel-powered TRUs on delivery trucks. The Draft SEIR did not separately include emissions from TRUs. This results in an increase in criteria pollutant emissions for stationary sources as compared to the Draft SEIR.

10. The consumer product usage rate was adjusted to account for the fact that most of the project's land uses are commercial and would not be associated with extensive consumer product use (such as hairsprays and aerosols). This analysis assumed consumer product emissions would only be attributed to the hotel land use. This change results in a substantial decrease in area source ROG emissions for the project as compared to the Draft SEIR.

11. Stationary source evaporative (fugitive) ROG emissions from the proposed gas station were estimated in this updated analysis. This includes customer fueling, fuel spillage, and venting from an underground storage tank. The Draft SEIR did not explicitly include fugitive ROG emissions from the gas station. This results in an increase in ROG emissions for stationary sources as compared to the Draft SEIR.

TABLE 12
FULL BUILDOUT (2031) AVERAGE DAILY UNMITIGATED OPERATIONAL EMISSIONS BY SOURCE

	Average Daily Emissions (pounds/day)			
Source [a]	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	4.30	0.00	0.00	0.00
Energy	0.14	1.32	0.10	0.10
Non-Delivery Vehicles (Running)	13.19	32.24	87.00	23.62
Light-Duty Vehicles (Idling at Gas Station)	0.09	0.14	0.02	0.02
Delivery Vehicles (Running + Starting)	0.19	23.26	0.98	0.48
Delivery Vehicles (Idling)	0.27	3.41	0.00	0.00
TRUs	0.87	12.85	0.08	0.08
Gas Station (Evaporative)	35.90	0.00	0.00	0.00
Costco Generator	0.09	1.37	0.04	0.04
Hotel Generator	0.09	1.37	0.04	0.04
Full Buildout Operational Emissions	55.14	75.95	88.27	24.38
Existing Operational Emissions [b]	13.00	27.00	10.00	3.00

Net Emissions [c]	*42.14*	*48.95*	*78.27*	*21.38*
BAAQMD Thresholds	54	54	82	54
Thresholds Exceeded?	No	No	No	No

NOTES:

[a] Categories defined as follows:
Area = Emissions from landscaping equipment, consumer products, and architectural coatings. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod. Consumer product emissions are only attributed to the hotel land use.
Energy = Emissions from natural gas combustion for space heating and cooking. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod.
Non-Delivery vehicles (running) = Operating emissions from daily commercial non-delivery vehicle trips. Emission from these trips were estimated using CalEEMod.
Light-duty vehicles (idling at gas station)-Idling emissions from autos queueing in line at gas station. Emissions estimated using EMFAC2017 emissions factors and an idling time of 10 minutes.
Delivery Vehicles (Running + Starting) = Operating emissions from daily commercial delivery vehicle trips. Refer to Table 4 for the daily vehicle trips for each land use type. Emissions were estimated using emission factors from EMFAC2017.
Delivery Vehicles (Idling) = Operating emissions from daily commercial delivery vehicles idling. Emissions were estimated using emission factors from EMFAC2017 and an idling duration of 15 minutes.
Transportation Refrigeration Units (TRUs) = Operating emissions from daily TRU usage at commercial land uses. Emissions were estimated outside of CalEEMod using emission factors from ARB's ATCM and Tier 4 Final emission standards for diesel engines.
Gas Station (Evaporative) = Operating daily evaporative ROG emissions from the gas station, which includes underground storage tank loading and breathing, as well as refueling and fuel spillage.
Costco and Hotel Generators = Operating emissions from diesel-powered emergency generators.

[b] Existing emissions obtained from Air Quality section of Draft SEIR.

[c] Net Emissions = full buildout operational emissions for the Project minus existing operational emissions.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
CalEEMod = CALifornia Emissions Estimator MODel
TRU = transportation refrigeration unit
EMFAC2017 = the California Air Resources Board's EMission FACtors Model, 2017 version

SOURCE: ESA, 2019

TABLE 13
FULL BUILDOUT (2031) TOTAL ANNUAL UNMITIGATED OPERATIONAL EMISSIONS BY SOURCE

	Total Annual Emissions (tons/year)			
Source [a]	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	0.78	0.00	0.00	0.00
Energy	0.03	0.24	0.02	0.02
Non-Delivery Vehicles (Running)	2.41	5.88	15.88	4.31
Light-Duty Vehicles (Idling at Gas Station)	0.02	0.03	0.00	0.00
Delivery Vehicles (Running + Starting)	0.03	4.24	0.18	0.09
Delivery Vehicles (Idling)	0.05	0.62	0.00	0.00
TRUs	0.16	2.35	0.01	0.01
Gas Station (Evaporative)	6.55	0.00	0.00	0.00
Costco Generator	0.02	0.25	0.01	0.01
Hotel Generator	0.02	0.25	0.01	0.01
Full Buildout Operational Emissions	10.06	13.86	16.11	4.45
Existing Emissions [b]	2.00	4.00	2.00	1.00
Net Emissions [c]	*8.06*	*9.86*	*14.11*	*3.45*

BAAQMD Thresholds	10	10	15	10
Thresholds Exceeded?	No	No	No	No

NOTES:

[a] Categories defined as follows:
Area = Emissions from landscaping equipment, consumer products, and architectural coatings. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod. Consumer product emissions are only attributed to the hotel land use.
Energy = Emissions from natural gas combustion for space heating and cooking. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod.
Non-Delivery vehicles (running) = Operating emissions from annual commercial non-delivery vehicle trips. Emission from these trips were estimated using CalEEMod.
Light-duty vehicles (idling at gas station)-Idling emissions from autos queueing in line at gas station. Emissions estimated using EMFAC2017 emissions factors and an idling time of 10 minutes.
Delivery Vehicles (Running + Starting) = Operating emissions from annual commercial delivery vehicle trips. Refer to Table 4 for the daily vehicle trips for each land use type. Emissions were estimated using emission factors from EMFAC2017.
Delivery Vehicles (Idling) = Operating emissions from annual commercial delivery vehicles idling. Emissions were estimated using emission factors from EMFAC2017 and an idling duration of 15 minutes.
Transportation Refrigeration Units (TRUs) = Operating emissions from annual TRU usage at commercial land uses. Emissions were estimated outside of CalEEMod using emission factors from ARB's ATCM and Tier 4 Final emission standards for diesel engines.
Gas Station (Evaporative)= Operating annual evaporative ROG emissions from the gas station, which includes underground storage tank loading and breathing, as well as refueling and fuel spillage.
Costco and Hotel Generators = Operating emissions from diesel-powered emergency generators.

[b] Existing emissions obtained from Air Quality section of Draft SEIR.

[c] Net Emissions = full buildout operational emissions for the Project minus existing operational emissions.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
TRU = transportation refrigeration unit
EMFAC2017 = the California Air Resources Board's EMission FACtors Model, 2017 version

SOURCE: ESA, 2019

Table 14 presents total annual unmitigated operational emissions by source (e.g., area) for the Full Buildout Operation (2031) scenario and compares these emissions to those reported in the Draft SEIR by source for the original buildout year of 2025. Similar to the tables above, emissions from existing land uses would be removed and are subtracted from the Project's operational emissions to determine the net Project's emissions. This table illustrates the differences in emissions between the two analyses.

TABLE 14
COMPARISON OF FULL BUILDOUT TOTAL ANNUAL UNMITIGATED OPERATIONAL EMISSIONS BY SOURCE FOR THE UPDATED ANALYSIS (2031) WITH THE DRAFT SEIR (2025)

	Total Annual Emissions (tons/year)							
	Updated Analysis (2031)				Draft SEIR (2025)			
Source [a]	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Area [b]	0.78	0.00	0.00	0.00	2.26	<0.01	<0.01	<0.01
Energy [c]	0.03	0.24	0.02	0.02	0.02	0.22	0.02	0.02
Non-Delivery Vehicles (Running) [d]	2.41	5.88	15.88	4.31	7.61	19.69	17.78	5.05
Light-Duty Vehicles (Idling at Gas Station) [e]	0.02	0.03	0.00	0.00	-	-	-	-
Delivery Vehicles (Running + Starting) [e]	0.03	4.24	0.18	0.09	-	-	-	-

Delivery Vehicles (Idling) [e]	0.05	0.62	0.00	0.00	-	-	-	-
TRUs [e]	0.16	2.35	0.01	0.01	-	-	-	-
Gas Station (Evaporative) [e]	6.55	0.00	0.00	0.00	-	-	-	-
Costco Generator [e]	0.02	0.25	0.01	0.01	-	-	-	-
Hotel Generator [e]	0.02	0.25	0.01	0.01	-	-	-	-
Full Buildout Operational Emissions	10.06	13.86	16.11	4.45	*9.98*	*19.91*	*17.80*	*5.07*
Existing Emissions [f]	2.00	4.00	2.00	1.00	2.00	4.00	2.00	1.00
Net Emissions [g]	*8.06*	*9.86*	*14.11*	*3.45*	*7.98*	*15.91*	*15.80*	*4.07*

NOTES:

[a] Categories defined as follows:
Area = Emissions from landscaping equipment, consumer products, and architectural coatings. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod. Consumer product emissions are only attributed to the hotel land use.
Energy = Emissions from natural gas combustion for space heating and cooking. Refer to Table 1 for the land use type and sizes assumed in the modeling. Emissions were modeled using CalEEMod.
Non-Delivery vehicles (running) = Operating emissions from annual commercial non-delivery vehicle trips. Emission from these trips were estimated using CalEEMod.
Light-duty vehicles (idling at gas station)-Idling emissions from autos queueing in line at gas station. Emissions estimated using EMFAC2017 emissions factors and an idling time of 10 minutes.
Delivery Vehicles (Running + Starting) = Operating emissions from annual commercial delivery vehicle trips. Refer to Table 4 for the daily vehicle trips for each land use type. Emissions were estimated using emission factors from EMFAC2017.
Delivery Vehicles (Idling) = Operating emissions from annual commercial delivery vehicles idling. Emissions were estimated using emission factors from EMFAC2017 and an idling duration of 15 minutes.
Transportation Refrigeration Units (TRUs) = Operating emissions from annual TRU usage at commercial land uses. Emissions were estimated outside of CalEEMod using emission factors from ARB's ATCM and Tier 4 Final emission standards for diesel engines.
Gas Station (Evaporative)= Operating annual evaporative ROG emissions from the gas station, which includes underground storage tank loading and breathing, as well as refueling and fuel spillage.
Costco and Hotel Generators = Operating emissions from diesel-powered emergency generators.

[b] Area source emissions differ because the land use values (i.e. square footage and hotel rooms) differ slightly from those in the Draft SEIR and because the consumer product emission rate was revised so that emissions would only be attributed to the hotel land use.

[c] Energy emissions differ because the land use values (i.e. square footage and hotel rooms) differ slightly from those in the Draft SEIR, and because the energy intensity values represent 2019 Title 24 Energy Efficiency Standards vs. 2008 Title 24 Energy Efficiency Standards.

[d] Non-Delivery vehicle emissions differ for the following reasons: a more recent version of CalEEMod was used to estimate emissions, trip rates were revised, the fleet mix for project-generated traffic was updated to represent all vehicle types except heavy-duty delivery vehicle trips, and the updated emissions represent vehicle emission rates for calendar year 2031 instead of 2025. In addition, the Draft SEIR did not separate mobile source emissions into running and idling emissions for vehicles; the totals presented here represent total mobile source emissions from all vehicle types from all processes.

[e] The Draft SEIR did not separately estimate emissions for these operational sources.

[f] Existing emissions obtained from Air Quality section of Draft SEIR.

[g] Net Emissions = full buildout operational emissions for the Project minus existing operational emissions.

ABBREVIATIONS:
ROG = reactive organic gases
NO_X = oxides of nitrogen
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
- = emissions not separately estimated in the Draft SEIR
TRU = transportation refrigeration unit
EMFAC2017 = the California Air Resources Board's EMission FACtors Model, 2017 version

SOURCES: ESA, 2019

Carbon Monoxide (CO) Emissions

Due to differences in the Draft SEIR's and the updated analysis' proposed land use sizes, daily trips and peak hour trips would change. When comparing the Draft SEIR's daily trips to the updated analysis' daily trips, the updated analysis would have no greater than one percent increase for Phase 1 project trips, and less than 19 percent increase for full buildout project trips. Overall, if the trip rates were prorated based on the land use square footage, the project's peak hour total trip rates would be less than 1,761 trips per hour, which is very small compared to the

BAAQMD's screening threshold of 44,000 vehicles per hour at an affected intersection. Therefore, same as the Draft SEIR's conclusion, CO impacts would remain less than significant.

Project Contribution to Cumulative Health Effects

No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts, and while its emissions may be individually limited, it could be cumulatively considerable when taken in combination with past, present, and future development projects.[50]

The project-level thresholds for criteria air pollutants are based on levels at which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, if a project leads to a significant impact individually, the project would also be considered to contribute significantly to the cumulative impact.

A CEQA air quality analysis of criteria air pollutants is based on significance thresholds that were set at emission levels tied to the region's attainment status.[51] The CEQA significance thresholds are emission levels above which stationary air pollutant sources permitted by the BAAQMD (typically, industrial facilities, refineries, and the like) must offset their emissions through purchase of emissions "offsets" from other facilities that have reduced emissions, either through installation of emissions controls or removal of an emissions source. Such offset levels allow for regional development while keeping the cumulative effects of new sources at a level that will not impede attainment of the NAAQS. Therefore, a CEQA air quality analysis of criteria air pollutants is essentially an analysis of regional, cumulative air quality impacts and a given project's contribution to those impacts.

As described in Chapter 1, Health Effects of Criteria Pollutants, compliance with the ambient air quality standards indicates that regional air quality can be considered protective of public health. However, as also explained in Chapter 1, the ambient air quality standards are expressed in terms of the concentrations of individual pollutants within the air. And, with certain exceptions, it is not readily feasible, given current air quality modeling tools, to calculate an individual project's effect on ambient pollutant concentrations. Exceptions include carbon monoxide, which is directly emitted from tailpipes and the concentration of which can be calculated proximate to locations such as high-volume intersections, where CO concentrations are typically highest. However, according to the BAAQMD, CO emissions and concentrations have decreased dramatically in the nearly 45 years since introduction of the catalytic converter, and no exceedance of either state or national standards for CO has been recorded in the Bay Area since

50 BAAQMD, 2017. California Environmental Quality Act Air Quality Guidelines, (2017), http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed August 7, 2018.

51 SJVAPCD, 2014. Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

1991.[52] Accordingly, modeling of CO concentrations is seldom required. Another exception is fine particulate matter. Concentrations of $PM_{2.5}$ are frequently used as a proxy for diesel particulate matter in health risk assessment, which is a separate type of air quality analysis from that for criteria pollutants discussed herein.[53]

Ozone, however, is a regional pollutant for which project-specific concentration modeling is not reliable given current modeling limitations. Because of the complexity of ozone formation and the non-linear relationship of ozone concentration with its precursor gases, and given the state of environmental science modeling in use at this time, it is infeasible to convert specific mass emissions levels (i.e., weight) of NO_X or ROGs emitted in a particular area (or by a particular project) to a particular concentration of ozone in that area.[54] Meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone.[55, 56] Furthermore, available models are designed to determine regional, population-wide health impacts, and cannot accurately quantify ozone-related health impacts caused by NO_X or ROG emissions from the local level, and in particular not at the level of an individual project.

As a result, project-level mass (weight) emission thresholds have been established for ozone precursors (NO_X and ROG) and other criteria pollutants precisely because it is not possible to readily convert mass emissions at the project-level to pollutant concentrations. As explained by the BAAQMD in its 2009 report justifying its CEQA significance thresholds, the thresholds for the ozone precursors ROG and NOx were tied to the BAAQMD's offset requirements for ozone precursors based on the fact that the Bay Area is not in attainment with the federal ozone standard and therefore such an approach is appropriate "to prevent further deterioration of ambient air quality and thus has nexus and proportionality to prevention of a regionally cumulative significant impact (e.g. worsened status of non-attainment)."[57] As explained above, attainment can be considered protective of public health, thus providing a strong link between a mass emission threshold and avoidance of health effects. For PM_{10} and $PM_{2.5}$, the BAAQMD established CEQA significance thresholds based on the federal New Source Review program for new stationary sources of pollution, which contains stricter thresholds than does BAAQMD's

52 BAAQMD, 2017. California Environmental Quality Act Air Quality Guidelines, (2017), p. 6-1; http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed February 11, 2019.

53 A separate Health Risk Assessment was prepared for this project.

54 SJVAPCD, 2014. Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

55 SCAQMD, 2014. Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

56 SJVAPCD, 2014. Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

57 BAAQMD, "Revised Draft Options and Justification Report: California Environmental Quality Act Thresholds of Significance," October 2009, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en. Reviewed February 11, 2019.

offset program for these pollutants. "These thresholds represent the emission levels above which a project's individual emissions would result in a considerable adverse contribution to the [San Francisco Bay Area Air Basin]'s existing air quality conditions."[58] As with ROG and NO_X discussed above, these thresholds likewise provide a connection between a mass emission threshold and avoidance of health effects.

As discussed above, the project would not exceed project-level significance thresholds for construction or operational criteria pollutant emissions, with the implementation of mitigation (Tier 3 engines) to reduce construction emissions of NO_X to less than significant. Therefore, the contribution of the project to the cumulative, regional air quality impacts related to criteria pollutants would not be considerable, and the project's contribution to any cumulative air quality impacts would be less than significant. And because, as explained above, the significance thresholds are linked to the avoidance of health effects, the project would not result in a significant adverse health effect with respect to emissions of criteria air pollutants.

[58] *Ibid*.

APPENDIX A

Construction Emissions

- CalEEMod Output – Construction
- Construction Haul Truck Idling Emissions
- Construction Emissions Summary

Operational Emissions

- CalEEMod Output – Phase 1 (2021)
- CalEEMod Output – Phase 1 (2031)
- CalEEMod Output – Full-Buildout 1 (2031)
- Generator Emissions
- Vehicle Emissions
- Gas Station Emissions
- Transportation Refrigeration Unit Emissions

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Emissions Calculations

Construction Emissions

CalEEMod Output – Construction

Johnson Drive Construction-Mitigated

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	3.40	Acre	3.40	148,104.00	0
Other Non-Asphalt Surfaces	1.22	Acre	1.22	53,143.20	0
Other Non-Asphalt Surfaces	2.80	Acre	2.80	121,968.00	0
Parking Lot	10.30	Acre	10.30	448,668.00	0
Parking Lot	3.16	Acre	3.16	137,649.60	0
Parking Lot	10.50	Acre	10.50	457,380.00	0
Hotel	231.00	Room	0.77	132,000.00	0
Discount Club	148.00	1000sqft	3.40	148,000.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0
Strip Mall	5.00	1000sqft	0.11	5,000.00	0
Strip Mall	184.04	1000sqft	4.22	184,037.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Specific Information

Architectural Coating - Other Non-Asphalt Surfaces would not have architectural coatings

Construction Off-road Equipment Mitigation - Tier 3 Equipment for equipment greater than 50HP

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	235,930.00	68,500.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	235,930.00	75,411.75
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	235,930.00	92,018.50
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	707,791.00	205,500.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	707,791.00	226,235.25
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	707,791.00	276,055.50
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
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tblLandUse	LandUseSquareFeet	184,040.00	184,037.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00

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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.6078	7.0783	5.2573	0.0128	0.6885	0.2907	0.9792	0.2625	0.2713	0.5338	0.0000	1,143.5509	1,143.5509	0.2216	0.0000	1,149.0905
2021	0.8408	0.5733	0.5744	1.2100e-003	0.0369	0.0277	0.0646	9.6800e-003	0.0261	0.0357	0.0000	106.8633	106.8633	0.0182	0.0000	107.3170
2030	1.3726	1.6899	2.6702	8.6000e-003	0.5892	0.0353	0.6245	0.2266	0.0352	0.2618	0.0000	787.0846	787.0846	0.0305	0.0000	787.8467
2031	0.0110	0.0185	0.0401	7.0000e-005	4.1000e-004	8.3000e-004	1.2300e-003	1.0000e-004	8.3000e-004	9.3000e-004	0.0000	6.4385	6.4385	3.0000e-004	0.0000	6.4460
Maximum	**1.6078**	**7.0783**	**5.2573**	**0.0128**	**0.6885**	**0.2907**	**0.9792**	**0.2625**	**0.2713**	**0.5338**	**0.0000**	**1,143.5509**	**1,143.5509**	**0.2216**	**0.0000**	**1,149.0905**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.2668	5.2604	5.9854	0.0128	0.6885	0.2137	0.9022	0.2625	0.2135	0.4760	0.0000	1,143.5500	1,143.5500	0.2216	0.0000	1,149.0896
2021	0.8123	0.4857	0.6211	1.2100e-003	0.0369	0.0252	0.0621	9.6800e-003	0.0251	0.0348	0.0000	106.8632	106.8632	0.0182	0.0000	107.3170
2030	1.2498	2.7736	3.3673	8.6000e-003	0.5892	0.1235	0.7126	0.2266	0.1234	0.3500	0.0000	787.0840	787.0840	0.0305	0.0000	787.8461
2031	8.9200e-003	0.0290	0.0437	7.0000e-005	4.1000e-004	1.5300e-003	1.9300e-003	1.0000e-004	1.5300e-003	1.6300e-003	0.0000	6.4385	6.4385	3.0000e-004	0.0000	6.4460
Maximum	**1.2668**	**5.2604**	**5.9854**	**0.0128**	**0.6885**	**0.2137**	**0.9022**	**0.2625**	**0.2135**	**0.4760**	**0.0000**	**1,143.5500**	**1,143.5500**	**0.2216**	**0.0000**	**1,149.0896**

	ROG	**NOx**	**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	**12.90**	**8.67**	**-17.27**	**0.00**	**0.00**	**-2.64**	**-0.56**	**0.00**	**-9.04**	**-3.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-6-2020	7-5-2020	5.5758	4.0474
2	7-6-2020	10-5-2020	2.0782	1.6868
3	10-6-2020	1-5-2021	1.0167	0.7777
4	1-6-2021	4-5-2021	1.3717	1.2631
40	1-6-2030	4-5-2030	0.7216	1.1876
41	4-6-2030	7-5-2030	0.5620	0.7545
42	7-6-2030	10-5-2030	0.4399	0.6260
43	10-6-2030	1-5-2031	1.3596	1.4724
44	1-6-2031	4-5-2031	0.0084	0.0108
		Highest	5.5758	4.0474

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2063	5.0000e-005	5.7300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Energy	0.0363	0.3295	0.2768	1.9800e-003		0.0250	0.0250		0.0250	0.0250	0.0000	1,812.5169	1,812.5169	0.0726	0.0202	1,820.3450
Mobile	4.7853	20.6799	45.0663	0.1278	9.9978	0.1455	10.1433	2.6839	0.1367	2.8207	0.0000	11,721.1523	11,721.1523	0.5290	0.0000	11,734.3768
Waste						0.0000	0.0000		0.0000	0.0000	197.3559	0.0000	197.3559	11.6634	0.0000	488.9410
Water						0.0000	0.0000		0.0000	0.0000	9.8637	65.3491	75.2127	1.0161	0.0245	107.9247
Total	**7.0278**	**21.0094**	**45.3489**	**0.1298**	**9.9978**	**0.1705**	**10.1683**	**2.6839**	**0.1618**	**2.8457**	**207.2196**	**13,599.0293**	**13,806.2489**	**13.2811**	**0.0447**	**14,151.5992**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2063	5.0000e-005	5.7300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Energy	0.0363	0.3295	0.2768	1.9800e-003		0.0250	0.0250		0.0250	0.0250	0.0000	1,812.5169	1,812.5169	0.0726	0.0202	1,820.3450
Mobile	4.7853	20.6799	45.0663	0.1278	9.9978	0.1455	10.1433	2.6839	0.1367	2.8207	0.0000	11,721.1523	11,721.1523	0.5290	0.0000	11,734.3768
Waste						0.0000	0.0000		0.0000	0.0000	197.3559	0.0000	197.3559	11.6634	0.0000	488.9410
Water						0.0000	0.0000		0.0000	0.0000	9.8637	65.3491	75.2127	1.0161	0.0245	107.9247
Total	**7.0278**	**21.0094**	**45.3489**	**0.1298**	**9.9978**	**0.1705**	**10.1683**	**2.6839**	**0.1618**	**2.8457**	**207.2196**	**13,599.0293**	**13,806.2489**	**13.2811**	**0.0447**	**14,151.5992**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1A-Grading/Excavation	Grading	4/6/2020	5/10/2020	6	30	
2	Phase 1B-Grading/Excavation	Grading	4/6/2020	6/15/2020	5	51	
3	Phase 1A-Drainage/Utilities/Sub-Grade	Site Preparation	4/22/2020	4/29/2020	6	7	
4	Phase 1A-Foundations/Concrete Pour	Site Preparation	4/29/2020	5/15/2020	6	15	
5	Phase 1A-Building Construction	Building Construction	5/16/2020	7/24/2020	6	60	
6	Phase 1A-Architectural Coatings	Architectural Coating	5/28/2020	7/24/2020	6	50	
7	Phase 1B-Drainage/Utilities/Sub-Grade	Site Preparation	6/16/2020	6/30/2020	5	11	
8	Phase 1B-Foundations/Concrete Pour	Site Preparation	7/1/2020	7/30/2020	5	22	
9	Phase 1A-Paving	Paving	7/17/2020	7/24/2020	6	7	

10	Phase 1B-Building Construction	Building Construction	7/31/2020	2/23/2021	5	148	
11	Phase 1B-Architectural Coatings	Architectural Coating	2/24/2021	3/20/2021	5	18	
12	Phase 1B-Paving	Paving	3/21/2021	4/5/2021	5	11	
13	Phase 2-Demolition	Demolition	1/7/2030	2/3/2030	5	20	
14	Phase 2-Grading/Excavation	Grading	2/4/2030	3/2/2030	5	20	
15	Phase 2-Drainage/Utilities/Sub-Grade	Site Preparation	3/3/2030	4/6/2030	5	25	
16	Phase 2-Foundations/Concrete Pour	Site Preparation	4/6/2030	4/28/2030	5	15	
17	Phase 2-Building Construction	Building Construction	4/30/2030	11/11/2030	5	140	
18	Phase 2-Architectural Coatings	Architectural Coating	11/12/2030	12/9/2030	5	20	
19	Phase 2-Paving	Paving	12/10/2030	1/7/2031	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 31.38

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 226,235; Non-Residential Outdoor: 75,412; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1A-Grading/Excavation	Graders	1	8.00	187	0.41
Phase 1A-Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Phase 1A-Grading/Excavation	Scrapers	6	8.00	367	0.48
Phase 1A-Grading/Excavation	Off-Highway Trucks	1	8.00	402	0.38
Phase 1A-Grading/Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 1A-Drainage/Utilities/Sub-Grade	Dumpers/Tenders	1	8.00	16	0.38
Phase 1A-Drainage/Utilities/Sub-Grade	Off-Highway Tractors	3	8.00	124	0.44
Phase 1A-Drainage/Utilities/Sub-Grade	Off-Highway Trucks	2	8.00	402	0.38
Phase 1A-Drainage/Utilities/Sub-Grade	Rollers	3	8.00	80	0.38
Phase 1A-Drainage/Utilities/Sub-Grade	Skid Steer Loaders	2	8.00	65	0.37
Phase 1A-Foundations/Concrete Pour	Cement and Mortar Mixers	60	8.00	9	0.56
Phase 1A-Foundations/Concrete Pour	Forklifts	3	8.00	89	0.20

Phase 1A-Foundations/Concrete Pour	Generator Sets	1	8.00	84	0.74
Phase 1A-Foundations/Concrete Pour	Pumps	1	8.00	84	0.74
Phase 1A-Building Construction	Graders	2	8.00	187	0.41
Phase 1A-Building Construction	Off-Highway Tractors	10	8.00	124	0.44
Phase 1A-Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1A-Building Construction	Welders	1	8.00	46	0.45
Phase 1A-Architectural Coatings	Air Compressors	1	8.00	78	0.48
Phase 1A-Paving	Off-Highway Tractors	3	8.00	124	0.44
Phase 1A-Paving	Off-Highway Trucks	3	8.00	402	0.38
Phase 1A-Paving	Paving Equipment	2	8.00	132	0.36
Phase 1A-Paving	Rollers	3	8.00	80	0.38
Phase 1A-Paving	Skid Steer Loaders	1	8.00	65	0.37
Phase 1B-Grading/Excavation	Excavators	1	8.00	158	0.38
Phase 1B-Grading/Excavation	Graders	1	8.00	187	0.41
Phase 1B-Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Phase 1B-Grading/Excavation	Off-Highway Trucks	1	8.00	402	0.38
Phase 1B-Grading/Excavation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Phase 1B-Drainage/Utilities/Sub-Grade	Rubber Tired Dozers	3	8.00	247	0.40
Phase 1B-Drainage/Utilities/Sub-Grade	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Phase 1B-Foundations/Concrete Pour	Cranes	1	8.00	231	0.29
Phase 1B-Foundations/Concrete Pour	Forklifts	3	8.00	89	0.20
Phase 1B-Foundations/Concrete Pour	Generator Sets	1	8.00	84	0.74
Phase 1B-Foundations/Concrete Pour	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Phase 1B-Foundations/Concrete Pour	Pumps	1	8.00	84	0.74
Phase 1B-Building Construction	Cranes	1	8.00	231	0.29
Phase 1B-Building Construction	Forklifts	4	8.00	89	0.20
Phase 1B-Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1B-Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Phase 1B-Building Construction	Welders	2	8.00	46	0.45
Phase 1B-Architectural Coatings	Air Compressors	1	8.00	78	0.48

Phase 1B-Paving	Pavers	2	8.00	130	0.42
Phase 1B-Paving	Paving Equipment	2	8.00	132	0.36
Phase 1B-Paving	Rollers	2	8.00	80	0.38
Phase 2-Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 2-Demolition	Excavators	2	8.00	158	0.38
Phase 2-Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Phase 2-Grading/Excavation	Excavators	1	8.00	158	0.38
Phase 2-Grading/Excavation	Graders	2	8.00	187	0.41
Phase 2-Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Phase 2-Grading/Excavation	Scrapers	6	8.00	367	0.48
Phase 2-Grading/Excavation	Off-Highway Trucks	2	8.00	402	0.38
Phase 2-Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase 2-Drainage/Utilities/Sub-Grade	Rubber Tired Dozers	3	8.00	247	0.40
Phase 2-Drainage/Utilities/Sub-Grade	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Phase 2-Foundations/Concrete Pour	Cranes	1	8.00	231	0.29
Phase 2-Foundations/Concrete Pour	Forklifts	3	8.00	89	0.20
Phase 2-Foundations/Concrete Pour	Generator Sets	1	8.00	84	0.74
Phase 2-Foundations/Concrete Pour	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Phase 2-Foundations/Concrete Pour	Pumps	1	8.00	84	0.74
Phase 2-Building Construction	Cranes	1	8.00	231	0.29
Phase 2-Building Construction	Forklifts	3	8.00	89	0.20
Phase 2-Building Construction	Generator Sets	1	8.00	84	0.74
Phase 2-Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Phase 2-Building Construction	Welders	1	8.00	46	0.45
Phase 2-Architectural Coatings	Air Compressors	1	8.00	78	0.48
Phase 2-Paving	Pavers	2	8.00	130	0.42
Phase 2-Paving	Paving Equipment	2	8.00	132	0.36
Phase 2-Paving	Rollers	2	8.00	80	0.38

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
Phase 1A-Grading/Excavation	10	26.00	0.00	800.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1A-Drainage/Utilities/Sub-	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1A-Foundations/Concrete	65	164.00	0.00	1,200.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1A-Building Construction	14	300.00	0.00	2,100.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1A-Architectural Coatings	1	60.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1A-Paving	12	30.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1B-Grading/Excavation	7	18.00	0.00	680.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1B-Drainage/Utilities/Sub-	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1B-Foundations/Concrete	9	24.00	0.00	1,020.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1B-Building Construction	11	138.00	0.00	1,944.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1B-Architectural Coatings	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 1B-Paving	6	16.00	0.00	22.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Grading/Excavation	14	36.00	0.00	1,240.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Drainage/Utilities/Sub-	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Foundations/Concrete	9	24.00	0.00	1,860.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Building Construction	9	304.00	0.00	2,612.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Architectural Coatings	1	62.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT
Phase 2-Paving	6	6.00	0.00	42.00	10.80	7.30	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Phase 1A-Grading/Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Fugitive Dust					0.1937	0.0000	0.1937	0.0608	0.0000	0.0608	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1258	1.4490	0.8518	1.8400e-003		0.0581	0.0581		0.0534	0.0534	0.0000	161.2731	161.2731	0.0522	0.0000	162.5771
Total	**0.1258**	**1.4490**	**0.8518**	**1.8400e-003**	**0.1937**	**0.0581**	**0.2518**	**0.0608**	**0.0534**	**0.1142**	**0.0000**	**161.2731**	**161.2731**	**0.0522**	**0.0000**	**162.5771**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3400e-003	0.1170	0.0235	3.2000e-004	6.7600e-003	3.8000e-004	7.1300e-003	1.8600e-003	3.6000e-004	2.2200e-003	0.0000	30.6549	30.6549	1.5800e-003	0.0000	30.6944
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	9.2000e-004	9.5800e-003	3.0000e-005	3.0800e-003	2.0000e-005	3.1000e-003	8.2000e-004	2.0000e-005	8.4000e-004	0.0000	2.6999	2.6999	7.0000e-005	0.0000	2.7015
Total	**4.6300e-003**	**0.1179**	**0.0331**	**3.5000e-004**	**9.8400e-003**	**4.0000e-004**	**0.0102**	**2.6800e-003**	**3.8000e-004**	**3.0600e-003**	**0.0000**	**33.3548**	**33.3548**	**1.6500e-003**	**0.0000**	**33.3959**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1937	0.0000	0.1937	0.0608	0.0000	0.0608	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0451	0.8762	0.9879	1.8400e-003		0.0341	0.0341		0.0341	0.0341	0.0000	161.2729	161.2729	0.0522	0.0000	162.5769

Total	**0.0451**	**0.8762**	**0.9879**	**1.8400e-003**	**0.1937**	**0.0341**	**0.2278**	**0.0608**	**0.0341**	**0.0949**	**0.0000**	**161.2729**	**161.2729**	**0.0522**	**0.0000**	**162.5769**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3400e-003	0.1170	0.0235	3.2000e-004	6.7600e-003	3.8000e-004	7.1300e-003	1.8600e-003	3.6000e-004	2.2200e-003	0.0000	30.6549	30.6549	1.5800e-003	0.0000	30.6944
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	9.2000e-004	9.5800e-003	3.0000e-005	3.0800e-003	2.0000e-005	3.1000e-003	8.2000e-004	2.0000e-005	8.4000e-004	0.0000	2.6999	2.6999	7.0000e-005	0.0000	2.7015
Total	**4.6300e-003**	**0.1179**	**0.0331**	**3.5000e-004**	**9.8400e-003**	**4.0000e-004**	**0.0102**	**2.6800e-003**	**3.8000e-004**	**3.0600e-003**	**0.0000**	**33.3548**	**33.3548**	**1.6500e-003**	**0.0000**	**33.3959**

3.3 Phase 1B-Grading/Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1671	0.0000	0.1671	0.0859	0.0000	0.0859	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0788	0.8341	0.5065	1.0900e-003		0.0384	0.0384		0.0353	0.0353	0.0000	96.0284	96.0284	0.0311	0.0000	96.8049
Total	**0.0788**	**0.8341**	**0.5065**	**1.0900e-003**	**0.1671**	**0.0384**	**0.2054**	**0.0859**	**0.0353**	**0.1212**	**0.0000**	**96.0284**	**96.0284**	**0.0311**	**0.0000**	**96.8049**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8400e-003	0.0994	0.0200	2.7000e-004	5.7400e-003	3.2000e-004	6.0600e-003	1.5800e-003	3.1000e-004	1.8900e-003	0.0000	26.0567	26.0567	1.3400e-003	0.0000	26.0902
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	1.0900e-003	0.0113	4.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	3.1776	3.1776	8.0000e-005	0.0000	3.1795
Total	**4.3600e-003**	**0.1005**	**0.0313**	**3.1000e-004**	**9.3700e-003**	**3.4000e-004**	**9.7100e-003**	**2.5400e-003**	**3.3000e-004**	**2.8800e-003**	**0.0000**	**29.2343**	**29.2343**	**1.4200e-003**	**0.0000**	**29.2697**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1671	0.0000	0.1671	0.0859	0.0000	0.0859	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.5378	0.6629	1.0900e-003		0.0253	0.0253		0.0253	0.0253	0.0000	96.0283	96.0283	0.0311	0.0000	96.8048
Total	**0.0268**	**0.5378**	**0.6629**	**1.0900e-003**	**0.1671**	**0.0253**	**0.1924**	**0.0859**	**0.0253**	**0.1112**	**0.0000**	**96.0283**	**96.0283**	**0.0311**	**0.0000**	**96.8048**

Mitigated Construction Off-Site

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

Hauling	2.8400e-003	0.0994	0.0200	2.7000e-004	5.7400e-003	3.2000e-004	6.0600e-003	1.5800e-003	3.1000e-004	1.8900e-003	0.0000	26.0567	26.0567	1.3400e-003	0.0000	26.0902
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5200e-003	1.0900e-003	0.0113	4.0000e-005	3.6300e-003	2.0000e-005	3.6500e-003	9.6000e-004	2.0000e-005	9.9000e-004	0.0000	3.1776	3.1776	8.0000e-005	0.0000	3.1795
Total	**4.3600e-003**	**0.1005**	**0.0313**	**3.1000e-004**	**9.3700e-003**	**3.4000e-004**	**9.7100e-003**	**2.5400e-003**	**3.3000e-004**	**2.8800e-003**	**0.0000**	**29.2343**	**29.2343**	**1.4200e-003**	**0.0000**	**29.2697**

3.4 Phase 1A-Drainage/Utilities/Sub-Grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.1044	0.0896	1.9000e-004		4.8100e-003	4.8100e-003		4.4300e-003	4.4300e-003	0.0000	16.3391	16.3391	5.2400e-003	0.0000	16.4702
Total	**0.0104**	**0.1044**	**0.0896**	**1.9000e-004**	**0.0000**	**4.8100e-003**	**4.8100e-003**	**0.0000**	**4.4300e-003**	**4.4300e-003**	**0.0000**	**16.3391**	**16.3391**	**5.2400e-003**	**0.0000**	**16.4702**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.4100e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6784	0.6784	2.0000e-005	0.0000	0.6789
Total	**3.2000e-004**	**2.3000e-004**	**2.4100e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.8000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6784**	**0.6784**	**2.0000e-005**	**0.0000**	**0.6789**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7600e-003	0.0924	0.1191	1.9000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003	0.0000	16.3391	16.3391	5.2400e-003	0.0000	16.4702
Total	**4.7600e-003**	**0.0924**	**0.1191**	**1.9000e-004**	**0.0000**	**4.5000e-003**	**4.5000e-003**	**0.0000**	**4.5000e-003**	**4.5000e-003**	**0.0000**	**16.3391**	**16.3391**	**5.2400e-003**	**0.0000**	**16.4702**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.4100e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6784	0.6784	2.0000e-005	0.0000	0.6789
Total	**3.2000e-004**	**2.3000e-004**	**2.4100e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.8000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6784**	**0.6784**	**2.0000e-005**	**0.0000**	**0.6789**

3.5 Phase 1A-Foundations/Concrete Pour - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0359	0.2474	0.2214	4.5000e-004		0.0116	0.0116		0.0115	0.0115	0.0000	32.1221	32.1221	3.6100e-003	0.0000	32.2124
Total	**0.0359**	**0.2474**	**0.2214**	**4.5000e-004**	**0.0000**	**0.0116**	**0.0116**	**0.0000**	**0.0115**	**0.0115**	**0.0000**	**32.1221**	**32.1221**	**3.6100e-003**	**0.0000**	**32.2124**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0100e-003	0.1754	0.0353	4.7000e-004	0.0101	5.7000e-004	0.0107	2.7900e-003	5.4000e-004	3.3300e-003	0.0000	45.9824	45.9824	2.3700e-003	0.0000	46.0416
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0800e-003	2.9200e-003	0.0302	9.0000e-005	9.7200e-003	7.0000e-005	9.7800e-003	2.5900e-003	6.0000e-005	2.6500e-003	0.0000	8.5151	8.5151	2.1000e-004	0.0000	8.5202
Total	**9.0900e-003**	**0.1783**	**0.0655**	**5.6000e-004**	**0.0199**	**6.4000e-004**	**0.0205**	**5.3800e-003**	**6.0000e-004**	**5.9800e-003**	**0.0000**	**54.4974**	**54.4974**	**2.5800e-003**	**0.0000**	**54.5618**

Mitigated Construction On-Site

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

Off-Road	0.0293	0.2301	0.2258	4.5000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	32.1221	32.1221	3.6100e-003	0.0000	32.2123
Total	**0.0293**	**0.2301**	**0.2258**	**4.5000e-004**	**0.0000**	**0.0110**	**0.0110**	**0.0000**	**0.0110**	**0.0110**	**0.0000**	**32.1221**	**32.1221**	**3.6100e-003**	**0.0000**	**32.2123**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0100e-003	0.1754	0.0353	4.7000e-004	0.0101	5.7000e-004	0.0107	2.7900e-003	5.4000e-004	3.3300e-003	0.0000	45.9824	45.9824	2.3700e-003	0.0000	46.0416
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0800e-003	2.9200e-003	0.0302	9.0000e-005	9.7200e-003	7.0000e-005	9.7800e-003	2.5900e-003	6.0000e-005	2.6500e-003	0.0000	8.5151	8.5151	2.1000e-004	0.0000	8.5202
Total	**9.0900e-003**	**0.1783**	**0.0655**	**5.6000e-004**	**0.0199**	**6.4000e-004**	**0.0205**	**5.3800e-003**	**6.0000e-004**	**5.9800e-003**	**0.0000**	**54.4974**	**54.4974**	**2.5800e-003**	**0.0000**	**54.5618**

3.6 Phase 1A-Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1290	1.3654	1.2012	2.0800e-003		0.0611	0.0611		0.0569	0.0569	0.0000	181.4380	181.4380	0.0532	0.0000	182.7670
Total	**0.1290**	**1.3654**	**1.2012**	**2.0800e-003**		**0.0611**	**0.0611**		**0.0569**	**0.0569**	**0.0000**	**181.4380**	**181.4380**	**0.0532**	**0.0000**	**182.7670**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7600e-003	0.3070	0.0617	8.3000e-004	0.0177	9.9000e-004	0.0187	4.8800e-003	9.5000e-004	5.8200e-003	0.0000	80.4692	80.4692	4.1400e-003	0.0000	80.5727
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0213	0.2211	6.9000e-004	0.0711	4.8000e-004	0.0716	0.0189	4.4000e-004	0.0194	0.0000	62.3053	62.3053	1.5100e-003	0.0000	62.3430
Total	**0.0386**	**0.3283**	**0.2827**	**1.5200e-003**	**0.0889**	**1.4700e-003**	**0.0903**	**0.0238**	**1.3900e-003**	**0.0252**	**0.0000**	**142.7744**	**142.7744**	**5.6500e-003**	**0.0000**	**142.9157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	0.9952	1.4538	2.0800e-003		0.0484	0.0484		0.0484	0.0484	0.0000	181.4378	181.4378	0.0532	0.0000	182.7668
Total	**0.0586**	**0.9952**	**1.4538**	**2.0800e-003**		**0.0484**	**0.0484**		**0.0484**	**0.0484**	**0.0000**	**181.4378**	**181.4378**	**0.0532**	**0.0000**	**182.7668**

Mitigated Construction Off-Site

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

Hauling	8.7600e-003	0.3070	0.0617	8.3000e-004	0.0177	9.9000e-004	0.0187	4.8800e-003	9.5000e-004	5.8200e-003	0.0000	80.4692	80.4692	4.1400e-003	0.0000	80.5727
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0298	0.0213	0.2211	6.9000e-004	0.0711	4.8000e-004	0.0716	0.0189	4.4000e-004	0.0194	0.0000	62.3053	62.3053	1.5100e-003	0.0000	62.3430
Total	**0.0386**	**0.3283**	**0.2827**	**1.5200e-003**	**0.0889**	**1.4700e-003**	**0.0903**	**0.0238**	**1.3900e-003**	**0.0252**	**0.0000**	**142.7744**	**142.7744**	**5.6500e-003**	**0.0000**	**142.9157**

3.7 Phase 1A-Architectural Coatings - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0700e-003	0.0561	0.0611	1.0000e-004		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	8.5109	8.5109	6.6000e-004	0.0000	8.5273
Total	**0.8850**	**0.0561**	**0.0611**	**1.0000e-004**		**3.7000e-003**	**3.7000e-003**		**3.7000e-003**	**3.7000e-003**	**0.0000**	**8.5109**	**8.5109**	**6.6000e-004**	**0.0000**	**8.5273**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9700e-003	3.5600e-003	0.0368	1.1000e-004	0.0119	8.0000e-005	0.0119	3.1500e-003	7.0000e-005	3.2300e-003	0.0000	10.3842	10.3842	2.5000e-004	0.0000	10.3905
Total	**4.9700e-003**	**3.5600e-003**	**0.0368**	**1.1000e-004**	**0.0119**	**8.0000e-005**	**0.0119**	**3.1500e-003**	**7.0000e-005**	**3.2300e-003**	**0.0000**	**10.3842**	**10.3842**	**2.5000e-004**	**0.0000**	**10.3905**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9800e-003	0.0452	0.0611	1.0000e-004		3.1700e-003	3.1700e-003		3.1700e-003	3.1700e-003	0.0000	8.5108	8.5108	6.6000e-004	0.0000	8.5273
Total	**0.8789**	**0.0452**	**0.0611**	**1.0000e-004**		**3.1700e-003**	**3.1700e-003**		**3.1700e-003**	**3.1700e-003**	**0.0000**	**8.5108**	**8.5108**	**6.6000e-004**	**0.0000**	**8.5273**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9700e-003	3.5600e-003	0.0368	1.1000e-004	0.0119	8.0000e-005	0.0119	3.1500e-003	7.0000e-005	3.2300e-003	0.0000	10.3842	10.3842	2.5000e-004	0.0000	10.3905
Total	**4.9700e-003**	**3.5600e-003**	**0.0368**	**1.1000e-004**	**0.0119**	**8.0000e-005**	**0.0119**	**3.1500e-003**	**7.0000e-005**	**3.2300e-003**	**0.0000**	**10.3842**	**10.3842**	**2.5000e-004**	**0.0000**	**10.3905**

3.8 Phase 1B-Drainage/Utilities/Sub-Grade - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0546	0.0000	0.0546	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2333	0.1183	2.1000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	18.3869	18.3869	5.9500e-003	0.0000	18.5355
Total	**0.0224**	**0.2333**	**0.1183**	**2.1000e-004**	**0.0994**	**0.0121**	**0.1115**	**0.0546**	**0.0111**	**0.0657**	**0.0000**	**18.3869**	**18.3869**	**5.9500e-003**	**0.0000**	**18.5355**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.4300e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6854	0.6854	2.0000e-005	0.0000	0.6858
Total	**3.3000e-004**	**2.3000e-004**	**2.4300e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6854**	**0.6854**	**2.0000e-005**	**0.0000**	**0.6858**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0994	0.0000	0.0994	0.0546	0.0000	0.0546	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	5.1200e-003	0.1049	0.1263	2.1000e-004		5.2000e-003	5.2000e-003		5.2000e-003	5.2000e-003	0.0000	18.3869	18.3869	5.9500e-003	0.0000	18.5355
Total	**5.1200e-003**	**0.1049**	**0.1263**	**2.1000e-004**	**0.0994**	**5.2000e-003**	**0.1046**	**0.0546**	**5.2000e-003**	**0.0598**	**0.0000**	**18.3869**	**18.3869**	**5.9500e-003**	**0.0000**	**18.5355**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.4300e-003	1.0000e-005	7.8000e-004	1.0000e-005	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.6854	0.6854	2.0000e-005	0.0000	0.6858
Total	**3.3000e-004**	**2.3000e-004**	**2.4300e-003**	**1.0000e-005**	**7.8000e-004**	**1.0000e-005**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.6854**	**0.6854**	**2.0000e-005**	**0.0000**	**0.6858**

3.9 Phase 1B-Foundations/Concrete Pour - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0257	0.2487	0.2196	3.6000e-004		0.0145	0.0145		0.0137	0.0137	0.0000	31.4465	31.4465	6.8700e-003	0.0000	31.6183
Total	**0.0257**	**0.2487**	**0.2196**	**3.6000e-004**	**0.0000**	**0.0145**	**0.0145**	**0.0000**	**0.0137**	**0.0137**	**0.0000**	**31.4465**	**31.4465**	**6.8700e-003**	**0.0000**	**31.6183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.2600e-003	0.1491	0.0300	4.0000e-004	8.6100e-003	4.8000e-004	9.1000e-003	2.3700e-003	4.6000e-004	2.8300e-003	0.0000	39.0850	39.0850	2.0100e-003	0.0000	39.1353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.3000e-004	6.4800e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8276	1.8276	4.0000e-005	0.0000	1.8287
Total	**5.1300e-003**	**0.1497**	**0.0365**	**4.2000e-004**	**0.0107**	**4.9000e-004**	**0.0112**	**2.9200e-003**	**4.7000e-004**	**3.4000e-003**	**0.0000**	**40.9127**	**40.9127**	**2.0500e-003**	**0.0000**	**40.9641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2000e-003	0.1819	0.2387	3.6000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	31.4465	31.4465	6.8700e-003	0.0000	31.6182
Total	**8.2000e-003**	**0.1819**	**0.2387**	**3.6000e-004**	**0.0000**	**0.0118**	**0.0118**	**0.0000**	**0.0118**	**0.0118**	**0.0000**	**31.4465**	**31.4465**	**6.8700e-003**	**0.0000**	**31.6182**

Mitigated Construction Off-Site

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

Hauling	4.2600e-003	0.1491	0.0300	4.0000e-004	8.6100e-003	4.8000e-004	9.1000e-003	2.3700e-003	4.6000e-004	2.8300e-003	0.0000	39.0850	39.0850	2.0100e-003	0.0000	39.1353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	6.3000e-004	6.4800e-003	2.0000e-005	2.0900e-003	1.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8276	1.8276	4.0000e-005	0.0000	1.8287
Total	**5.1300e-003**	**0.1497**	**0.0365**	**4.2000e-004**	**0.0107**	**4.9000e-004**	**0.0112**	**2.9200e-003**	**4.7000e-004**	**3.4000e-003**	**0.0000**	**40.9127**	**40.9127**	**2.0500e-003**	**0.0000**	**40.9641**

3.10 Phase 1A-Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1362	0.1150	2.5000e-004		6.1400e-003	6.1400e-003		5.6500e-003	5.6500e-003	0.0000	22.0753	22.0753	7.1400e-003	0.0000	22.2538
Paving	0.0314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0450**	**0.1362**	**0.1150**	**2.5000e-004**		**6.1400e-003**	**6.1400e-003**		**5.6500e-003**	**5.6500e-003**	**0.0000**	**22.0753**	**22.0753**	**7.1400e-003**	**0.0000**	**22.2538**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	2.0500e-003	4.1000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5365	0.5365	3.0000e-005	0.0000	0.5372
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.5000e-004	2.5800e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7269	0.7269	2.0000e-005	0.0000	0.7273
Total	**4.1000e-004**	**2.3000e-003**	**2.9900e-003**	**2.0000e-005**	**9.5000e-004**	**2.0000e-005**	**9.6000e-004**	**2.5000e-004**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**1.2634**	**1.2634**	**5.0000e-005**	**0.0000**	**1.2645**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1600e-003	0.1222	0.1590	2.5000e-004		5.6400e-003	5.6400e-003		5.6400e-003	5.6400e-003	0.0000	22.0752	22.0752	7.1400e-003	0.0000	22.2537
Paving	0.0314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0376**	**0.1222**	**0.1590**	**2.5000e-004**		**5.6400e-003**	**5.6400e-003**		**5.6400e-003**	**5.6400e-003**	**0.0000**	**22.0752**	**22.0752**	**7.1400e-003**	**0.0000**	**22.2537**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	2.0500e-003	4.1000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5365	0.5365	3.0000e-005	0.0000	0.5372
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.5000e-004	2.5800e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7269	0.7269	2.0000e-005	0.0000	0.7273
Total	**4.1000e-004**	**2.3000e-003**	**2.9900e-003**	**2.0000e-005**	**9.5000e-004**	**2.0000e-005**	**9.6000e-004**	**2.5000e-004**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**1.2634**	**1.2634**	**5.0000e-005**	**0.0000**	**1.2645**

3.11 Phase 1B-Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1508	1.2935	1.1503	1.8100e-003		0.0758	0.0758		0.0714	0.0714	0.0000	154.2363	154.2363	0.0379	0.0000	155.1849
Total	**0.1508**	**1.2935**	**1.1503**	**1.8100e-003**		**0.0758**	**0.0758**		**0.0714**	**0.0714**	**0.0000**	**154.2363**	**154.2363**	**0.0379**	**0.0000**	**155.1849**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0300e-003	0.2112	0.0425	5.7000e-004	0.0154	6.8000e-004	0.0160	4.1300e-003	6.5000e-004	4.7800e-003	0.0000	55.3653	55.3653	2.8500e-003	0.0000	55.4365
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0252	0.0180	0.1864	5.8000e-004	0.0600	4.0000e-004	0.0604	0.0160	3.7000e-004	0.0163	0.0000	52.5441	52.5441	1.2700e-003	0.0000	52.5759
Total	**0.0312**	**0.2292**	**0.2289**	**1.1500e-003**	**0.0753**	**1.0800e-003**	**0.0764**	**0.0201**	**1.0200e-003**	**0.0211**	**0.0000**	**107.9094**	**107.9094**	**4.1200e-003**	**0.0000**	**108.0124**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0735	0.9642	1.2284	1.8100e-003		0.0602	0.0602		0.0602	0.0602	0.0000	154.2362	154.2362	0.0379	0.0000	155.1848

Total	**0.0735**	**0.9642**	**1.2284**	**1.8100e-003**		**0.0602**	**0.0602**		**0.0602**	**0.0602**	**0.0000**	**154.2362**	**154.2362**	**0.0379**	**0.0000**	**155.1848**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0300e-003	0.2112	0.0425	5.7000e-004	0.0154	6.8000e-004	0.0160	4.1300e-003	6.5000e-004	4.7800e-003	0.0000	55.3653	55.3653	2.8500e-003	0.0000	55.4365
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0252	0.0180	0.1864	5.8000e-004	0.0600	4.0000e-004	0.0604	0.0160	3.7000e-004	0.0163	0.0000	52.5441	52.5441	1.2700e-003	0.0000	52.5759
Total	**0.0312**	**0.2292**	**0.2289**	**1.1500e-003**	**0.0753**	**1.0800e-003**	**0.0764**	**0.0201**	**1.0200e-003**	**0.0211**	**0.0000**	**107.9094**	**107.9094**	**4.1200e-003**	**0.0000**	**108.0124**

3.11 Phase 1B-Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0466	0.4073	0.3906	6.2000e-004		0.0225	0.0225		0.0212	0.0212	0.0000	53.2876	53.2876	0.0129	0.0000	53.6108
Total	**0.0466**	**0.4073**	**0.3906**	**6.2000e-004**		**0.0225**	**0.0225**		**0.0212**	**0.0212**	**0.0000**	**53.2876**	**53.2876**	**0.0129**	**0.0000**	**53.6108**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9700e-003	0.0674	0.0144	1.9000e-004	0.0134	2.1000e-004	0.0136	3.4000e-003	2.0000e-004	3.6000e-003	0.0000	18.8809	18.8809	9.6000e-004	0.0000	18.9050
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0500e-003	5.5500e-003	0.0588	1.9000e-004	0.0207	1.4000e-004	0.0209	5.5100e-003	1.2000e-004	5.6400e-003	0.0000	17.5147	17.5147	3.9000e-004	0.0000	17.5245
Total	**0.0100**	**0.0729**	**0.0732**	**3.8000e-004**	**0.0341**	**3.5000e-004**	**0.0344**	**8.9100e-003**	**3.2000e-004**	**9.2400e-003**	**0.0000**	**36.3956**	**36.3956**	**1.3500e-003**	**0.0000**	**36.4295**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0239	0.3307	0.4225	6.2000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	53.2875	53.2875	0.0129	0.0000	53.6107
Total	**0.0239**	**0.3307**	**0.4225**	**6.2000e-004**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**53.2875**	**53.2875**	**0.0129**	**0.0000**	**53.6107**

Mitigated Construction Off-Site

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

Hauling	1.9700e-003	0.0674	0.0144	1.9000e-004	0.0134	2.1000e-004	0.0136	3.4000e-003	2.0000e-004	3.6000e-003	0.0000	18.8809	18.8809	9.6000e-004	0.0000	18.9050
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0500e-003	5.5500e-003	0.0588	1.9000e-004	0.0207	1.4000e-004	0.0209	5.5100e-003	1.2000e-004	5.6400e-003	0.0000	17.5147	17.5147	3.9000e-004	0.0000	17.5245
Total	**0.0100**	**0.0729**	**0.0732**	**3.8000e-004**	**0.0341**	**3.5000e-004**	**0.0344**	**8.9100e-003**	**3.2000e-004**	**9.2400e-003**	**0.0000**	**36.3956**	**36.3956**	**1.3500e-003**	**0.0000**	**36.4295**

3.12 Phase 1B-Architectural Coatings - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6300e-003	0.0183	0.0218	4.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	3.0639	3.0639	2.1000e-004	0.0000	3.0692
Total	**0.7448**	**0.0183**	**0.0218**	**4.0000e-005**		**1.1300e-003**	**1.1300e-003**		**1.1300e-003**	**1.1300e-003**	**0.0000**	**3.0639**	**3.0639**	**2.1000e-004**	**0.0000**	**3.0692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.3000e-004	5.6500e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6833	1.6833	4.0000e-005	0.0000	1.6843
Total	**7.7000e-004**	**5.3000e-004**	**5.6500e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6833**	**1.6833**	**4.0000e-005**	**0.0000**	**1.6843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7421					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1000e-004	0.0163	0.0220	4.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.0639	3.0639	2.1000e-004	0.0000	3.0692
Total	**0.7428**	**0.0163**	**0.0220**	**4.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**3.0639**	**3.0639**	**2.1000e-004**	**0.0000**	**3.0692**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	5.3000e-004	5.6500e-003	2.0000e-005	1.9900e-003	1.0000e-005	2.0000e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6833	1.6833	4.0000e-005	0.0000	1.6843
Total	**7.7000e-004**	**5.3000e-004**	**5.6500e-003**	**2.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6833**	**1.6833**	**4.0000e-005**	**0.0000**	**1.6843**

3.13 Phase 1B-Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.9100e-003	0.0711	0.0806	1.3000e-004		3.7300e-003	3.7300e-003		3.4300e-003	3.4300e-003	0.0000	11.0129	11.0129	3.5600e-003	0.0000	11.1020
Paving	0.0314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0383**	**0.0711**	**0.0806**	**1.3000e-004**		**3.7300e-003**	**3.7300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**11.0129**	**11.0129**	**3.5600e-003**	**0.0000**	**11.1020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	2.9700e-003	6.3000e-004	1.0000e-005	1.9000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.8322	0.8322	4.0000e-005	0.0000	0.8333
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.9000e-004	1.9700e-003	1.0000e-005	7.0000e-004	0.0000	7.0000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5878	0.5878	1.0000e-005	0.0000	0.5882
Total	**3.6000e-004**	**3.1600e-003**	**2.6000e-003**	**2.0000e-005**	**8.9000e-004**	**1.0000e-005**	**8.9000e-004**	**2.3000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**1.4200**	**1.4200**	**5.0000e-005**	**0.0000**	**1.4214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0900e-003	0.0621	0.0951	1.3000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	11.0129	11.0129	3.5600e-003	0.0000	11.1020

Paving	0.0314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0345**	**0.0621**	**0.0951**	**1.3000e-004**		**3.3500e-003**	**3.3500e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**11.0129**	**11.0129**	**3.5600e-003**	**0.0000**	**11.1020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	2.9700e-003	6.3000e-004	1.0000e-005	1.9000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.8322	0.8322	4.0000e-005	0.0000	0.8333
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.9000e-004	1.9700e-003	1.0000e-005	7.0000e-004	0.0000	7.0000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5878	0.5878	1.0000e-005	0.0000	0.5882
Total	**3.6000e-004**	**3.1600e-003**	**2.6000e-003**	**2.0000e-005**	**8.9000e-004**	**1.0000e-005**	**8.9000e-004**	**2.3000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**1.4200**	**1.4200**	**5.0000e-005**	**0.0000**	**1.4214**

3.14 Phase 2-Demolition - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0127	0.0604	0.1305	2.9000e-004		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	25.2789	25.2789	1.0200e-003	0.0000	25.3043
Total	**0.0127**	**0.0604**	**0.1305**	**2.9000e-004**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**	**0.0000**	**25.2789**	**25.2789**	**1.0200e-003**	**0.0000**	**25.3043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	9.0000e-005	1.1800e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.4870	0.4870	1.0000e-005	0.0000	0.4872
Total	**1.8000e-004**	**9.0000e-005**	**1.1800e-003**	**1.0000e-005**	**7.9000e-004**	**0.0000**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.4870**	**0.4870**	**1.0000e-005**	**0.0000**	**0.4872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8800e-003	0.1181	0.1623	2.9000e-004		5.9100e-003	5.9100e-003		5.9100e-003	5.9100e-003	0.0000	25.2788	25.2788	1.0200e-003	0.0000	25.3043
Total	**5.8800e-003**	**0.1181**	**0.1623**	**2.9000e-004**		**5.9100e-003**	**5.9100e-003**		**5.9100e-003**	**5.9100e-003**	**0.0000**	**25.2788**	**25.2788**	**1.0200e-003**	**0.0000**	**25.3043**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	9.0000e-005	1.1800e-003	1.0000e-005	7.9000e-004	0.0000	7.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.4870	0.4870	1.0000e-005	0.0000	0.4872
Total	**1.8000e-004**	**9.0000e-005**	**1.1800e-003**	**1.0000e-005**	**7.9000e-004**	**0.0000**	**7.9000e-004**	**2.1000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.4870**	**0.4870**	**1.0000e-005**	**0.0000**	**0.4872**

3.15 Phase 2-Grading/Excavation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1345	0.0000	0.1345	0.0411	0.0000	0.0411	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0773	0.2982	0.4168	1.6100e-003		0.0109	0.0109		0.0109	0.0109	0.0000	158.8000	158.8000	6.2200e-003	0.0000	158.9554
Total	**0.0773**	**0.2982**	**0.4168**	**1.6100e-003**	**0.1345**	**0.0109**	**0.1453**	**0.0411**	**0.0109**	**0.0520**	**0.0000**	**158.8000**	**158.8000**	**6.2200e-003**	**0.0000**	**158.9554**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9300e-003	0.0892	0.0323	4.4000e-004	0.0105	1.6000e-004	0.0106	2.8800e-003	1.5000e-004	3.0400e-003	0.0000	42.5886	42.5886	2.0500e-003	0.0000	42.6398
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.3000e-004	4.2600e-003	2.0000e-005	2.8400e-003	1.0000e-005	2.8600e-003	7.6000e-004	1.0000e-005	7.7000e-004	0.0000	1.7533	1.7533	2.0000e-005	0.0000	1.7539
Total	**3.5700e-003**	**0.0895**	**0.0366**	**4.6000e-004**	**0.0133**	**1.7000e-004**	**0.0135**	**3.6400e-003**	**1.6000e-004**	**3.8100e-003**	**0.0000**	**44.3419**	**44.3419**	**2.0700e-003**	**0.0000**	**44.3936**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1345	0.0000	0.1345	0.0411	0.0000	0.0411	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0370	0.7199	0.8264	1.6100e-003		0.0287	0.0287		0.0287	0.0287	0.0000	158.7998	158.7998	6.2200e-003	0.0000	158.9553
Total	**0.0370**	**0.7199**	**0.8264**	**1.6100e-003**	**0.1345**	**0.0287**	**0.1631**	**0.0411**	**0.0287**	**0.0698**	**0.0000**	**158.7998**	**158.7998**	**6.2200e-003**	**0.0000**	**158.9553**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9300e-003	0.0892	0.0323	4.4000e-004	0.0105	1.6000e-004	0.0106	2.8800e-003	1.5000e-004	3.0400e-003	0.0000	42.5886	42.5886	2.0500e-003	0.0000	42.6398
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.3000e-004	4.2600e-003	2.0000e-005	2.8400e-003	1.0000e-005	2.8600e-003	7.6000e-004	1.0000e-005	7.7000e-004	0.0000	1.7533	1.7533	2.0000e-005	0.0000	1.7539
Total	**3.5700e-003**	**0.0895**	**0.0366**	**4.6000e-004**	**0.0133**	**1.7000e-004**	**0.0135**	**3.6400e-003**	**1.6000e-004**	**3.8100e-003**	**0.0000**	**44.3419**	**44.3419**	**2.0700e-003**	**0.0000**	**44.3936**

3.16 Phase 2-Drainage/Utilities/Sub-Grade - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2258	0.0000	0.2258	0.1241	0.0000	0.1241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0305	0.1709	0.2037	5.8000e-004		5.4600e-003	5.4600e-003		5.4600e-003	5.4600e-003	0.0000	50.0058	50.0058	2.4700e-003	0.0000	50.0675
Total	**0.0305**	**0.1709**	**0.2037**	**5.8000e-004**	**0.2258**	**5.4600e-003**	**0.2313**	**0.1241**	**5.4600e-003**	**0.1296**	**0.0000**	**50.0058**	**50.0058**	**2.4700e-003**	**0.0000**	**50.0675**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.1000e-004	2.6600e-003	1.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.0958	1.0958	1.0000e-005	0.0000	1.0962
Total	**4.0000e-004**	**2.1000e-004**	**2.6600e-003**	**1.0000e-005**	**1.7800e-003**	**1.0000e-005**	**1.7900e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.0958**	**1.0958**	**1.0000e-005**	**0.0000**	**1.0962**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2258	0.0000	0.2258	0.1241	0.0000	0.1241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0116	0.2383	0.2870	5.8000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	50.0057	50.0057	2.4700e-003	0.0000	50.0674
Total	**0.0116**	**0.2383**	**0.2870**	**5.8000e-004**	**0.2258**	**0.0118**	**0.2377**	**0.1241**	**0.0118**	**0.1360**	**0.0000**	**50.0057**	**50.0057**	**2.4700e-003**	**0.0000**	**50.0674**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.1000e-004	2.6600e-003	1.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.0958	1.0958	1.0000e-005	0.0000	1.0962
Total	**4.0000e-004**	**2.1000e-004**	**2.6600e-003**	**1.0000e-005**	**1.7800e-003**	**1.0000e-005**	**1.7900e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.0958**	**1.0958**	**1.0000e-005**	**0.0000**	**1.0962**

3.17 Phase 2-Foundations/Concrete Pour - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0109	0.0679	0.1447	2.8000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	24.0309	24.0309	8.8000e-004	0.0000	24.0528
Total	**0.0109**	**0.0679**	**0.1447**	**2.8000e-004**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**1.3600e-003**	**1.3600e-003**	**0.0000**	**24.0309**	**24.0309**	**8.8000e-004**	**0.0000**	**24.0528**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3900e-003	0.1337	0.0485	6.5000e-004	0.0157	2.4000e-004	0.0160	4.3200e-003	2.3000e-004	4.5600e-003	0.0000	63.8829	63.8829	3.0700e-003	0.0000	63.9596
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	1.7000e-004	2.1300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.8000e-004	0.0000	0.8766	0.8766	1.0000e-005	0.0000	0.8769
Total	**4.7100e-003**	**0.1339**	**0.0506**	**6.6000e-004**	**0.0171**	**2.5000e-004**	**0.0174**	**4.7000e-003**	**2.4000e-004**	**4.9400e-003**	**0.0000**	**64.7595**	**64.7595**	**3.0800e-003**	**0.0000**	**64.8366**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5900e-003	0.1240	0.1627	2.8000e-004		8.0300e-003	8.0300e-003		8.0300e-003	8.0300e-003	0.0000	24.0308	24.0308	8.8000e-004	0.0000	24.0528
Total	**5.5900e-003**	**0.1240**	**0.1627**	**2.8000e-004**	**0.0000**	**8.0300e-003**	**8.0300e-003**	**0.0000**	**8.0300e-003**	**8.0300e-003**	**0.0000**	**24.0308**	**24.0308**	**8.8000e-004**	**0.0000**	**24.0528**

Mitigated Construction Off-Site

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

Hauling	4.3900e-003	0.1337	0.0485	6.5000e-004	0.0157	2.4000e-004	0.0160	4.3200e-003	2.3000e-004	4.5600e-003	0.0000	63.8829	63.8829	3.0700e-003	0.0000	63.9596
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	1.7000e-004	2.1300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.8000e-004	0.0000	0.8766	0.8766	1.0000e-005	0.0000	0.8769
Total	**4.7100e-003**	**0.1339**	**0.0506**	**6.6000e-004**	**0.0171**	**2.5000e-004**	**0.0174**	**4.7000e-003**	**2.4000e-004**	**4.9400e-003**	**0.0000**	**64.7595**	**64.7595**	**3.0800e-003**	**0.0000**	**64.8366**

3.18 Phase 2-Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0985	0.5901	1.2044	2.3300e-003		0.0111	0.0111		0.0111	0.0111	0.0000	197.8990	197.8990	7.9300e-003	0.0000	198.0973
Total	**0.0985**	**0.5901**	**1.2044**	**2.3300e-003**		**0.0111**	**0.0111**		**0.0111**	**0.0111**	**0.0000**	**197.8990**	**197.8990**	**7.9300e-003**	**0.0000**	**198.0973**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1600e-003	0.1878	0.0681	9.2000e-004	0.0221	3.4000e-004	0.0224	6.0700e-003	3.3000e-004	6.4000e-003	0.0000	89.7108	89.7108	4.3100e-003	0.0000	89.8186
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0379	0.0197	0.2515	1.1400e-003	0.1682	7.5000e-004	0.1689	0.0447	6.9000e-004	0.0454	0.0000	103.6388	103.6388	1.3500e-003	0.0000	103.6725
Total	**0.0441**	**0.2075**	**0.3196**	**2.0600e-003**	**0.1902**	**1.0900e-003**	**0.1913**	**0.0508**	**1.0200e-003**	**0.0518**	**0.0000**	**193.3496**	**193.3496**	**5.6600e-003**	**0.0000**	**193.4911**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0545	1.0307	1.3469	2.3300e-003		0.0613	0.0613		0.0613	0.0613	0.0000	197.8988	197.8988	7.9300e-003	0.0000	198.0970
Total	**0.0545**	**1.0307**	**1.3469**	**2.3300e-003**		**0.0613**	**0.0613**		**0.0613**	**0.0613**	**0.0000**	**197.8988**	**197.8988**	**7.9300e-003**	**0.0000**	**198.0970**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1600e-003	0.1878	0.0681	9.2000e-004	0.0221	3.4000e-004	0.0224	6.0700e-003	3.3000e-004	6.4000e-003	0.0000	89.7108	89.7108	4.3100e-003	0.0000	89.8186
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0379	0.0197	0.2515	1.1400e-003	0.1682	7.5000e-004	0.1689	0.0447	6.9000e-004	0.0454	0.0000	103.6388	103.6388	1.3500e-003	0.0000	103.6725
Total	**0.0441**	**0.2075**	**0.3196**	**2.0600e-003**	**0.1902**	**1.0900e-003**	**0.1913**	**0.0508**	**1.0200e-003**	**0.0518**	**0.0000**	**193.3496**	**193.3496**	**5.6600e-003**	**0.0000**	**193.4911**

3.19 Phase 2-Architectural Coatings - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0519					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7400e-003	0.0114	0.0240	4.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.4043	3.4043	1.4000e-004	0.0000	3.4078
Total	**1.0536**	**0.0114**	**0.0240**	**4.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.4043**	**3.4043**	**1.4000e-004**	**0.0000**	**3.4078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	5.7000e-004	7.3300e-003	3.0000e-005	4.9000e-003	2.0000e-005	4.9200e-003	1.3000e-003	2.0000e-005	1.3200e-003	0.0000	3.0196	3.0196	4.0000e-005	0.0000	3.0205
Total	**1.1000e-003**	**5.7000e-004**	**7.3300e-003**	**3.0000e-005**	**4.9000e-003**	**2.0000e-005**	**4.9200e-003**	**1.3000e-003**	**2.0000e-005**	**1.3200e-003**	**0.0000**	**3.0196**	**3.0196**	**4.0000e-005**	**0.0000**	**3.0205**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0519					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	7.9000e-004	0.0181	0.0244	4.0000e-005		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	3.4043	3.4043	1.4000e-004	0.0000	3.4078
Total	**1.0527**	**0.0181**	**0.0244**	**4.0000e-005**		**1.2700e-003**	**1.2700e-003**		**1.2700e-003**	**1.2700e-003**	**0.0000**	**3.4043**	**3.4043**	**1.4000e-004**	**0.0000**	**3.4078**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	5.7000e-004	7.3300e-003	3.0000e-005	4.9000e-003	2.0000e-005	4.9200e-003	1.3000e-003	2.0000e-005	1.3200e-003	0.0000	3.0196	3.0196	4.0000e-005	0.0000	3.0205
Total	**1.1000e-003**	**5.7000e-004**	**7.3300e-003**	**3.0000e-005**	**4.9000e-003**	**2.0000e-005**	**4.9200e-003**	**1.3000e-003**	**2.0000e-005**	**1.3200e-003**	**0.0000**	**3.0196**	**3.0196**	**4.0000e-005**	**0.0000**	**3.0205**

3.20 Phase 2-Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0111	0.0570	0.1268	2.2000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	19.2796	19.2796	9.0000e-004	0.0000	19.3022
Paving	0.0239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0350**	**0.0570**	**0.1268**	**2.2000e-004**		**2.6500e-003**	**2.6500e-003**		**2.6500e-003**	**2.6500e-003**	**0.0000**	**19.2796**	**19.2796**	**9.0000e-004**	**0.0000**	**19.3022**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.3000e-003	8.3000e-004	1.0000e-005	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	1.0991	1.0991	5.0000e-005	0.0000	1.1004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	4.0000e-005	5.7000e-004	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2338	0.2338	0.0000	0.0000	0.2339
Total	**1.7000e-004**	**2.3400e-003**	**1.4000e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.3328**	**1.3328**	**5.0000e-005**	**0.0000**	**1.3342**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4900e-003	0.0904	0.1384	2.2000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003	0.0000	19.2796	19.2796	9.0000e-004	0.0000	19.3022
Paving	0.0239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0284**	**0.0904**	**0.1384**	**2.2000e-004**		**4.8700e-003**	**4.8700e-003**		**4.8700e-003**	**4.8700e-003**	**0.0000**	**19.2796**	**19.2796**	**9.0000e-004**	**0.0000**	**19.3022**

Mitigated Construction Off-Site

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

Hauling	8.0000e-005	2.3000e-003	8.3000e-004	1.0000e-005	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	1.0991	1.0991	5.0000e-005	0.0000	1.1004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	4.0000e-005	5.7000e-004	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2338	0.2338	0.0000	0.0000	0.2339
Total	**1.7000e-004**	**2.3400e-003**	**1.4000e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.3328**	**1.3328**	**5.0000e-005**	**0.0000**	**1.3342**

3.20 Phase 2-Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4600e-003	0.0178	0.0396	7.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	6.0249	6.0249	2.8000e-004	0.0000	6.0319
Paving	7.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.0178**	**0.0396**	**7.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**6.0249**	**6.0249**	**2.8000e-004**	**0.0000**	**6.0319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.1000e-004	2.6000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3422	0.3422	2.0000e-005	0.0000	0.3427
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0714	0.0714	0.0000	0.0000	0.0714
Total	**4.0000e-005**	**7.2000e-004**	**4.3000e-004**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.4136**	**0.4136**	**2.0000e-005**	**0.0000**	**0.4141**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4000e-003	0.0282	0.0432	7.0000e-005		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	6.0249	6.0249	2.8000e-004	0.0000	6.0319
Paving	7.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.8700e-003**	**0.0282**	**0.0432**	**7.0000e-005**		**1.5200e-003**	**1.5200e-003**		**1.5200e-003**	**1.5200e-003**	**0.0000**	**6.0249**	**6.0249**	**2.8000e-004**	**0.0000**	**6.0319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.1000e-004	2.6000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3422	0.3422	2.0000e-005	0.0000	0.3427
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0714	0.0714	0.0000	0.0000	0.0714
Total	**4.0000e-005**	**7.2000e-004**	**4.3000e-004**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.4136**	**0.4136**	**2.0000e-005**	**0.0000**	**0.4141**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.7853	20.6799	45.0663	0.1278	9.9978	0.1455	10.1433	2.6839	0.1367	2.8207	0.0000	11,721.1523	11,721.1523	0.5290	0.0000	11,734.3768
Unmitigated	4.7853	20.6799	45.0663	0.1278	9.9978	0.1455	10.1433	2.6839	0.1367	2.8207	0.0000	11,721.1523	11,721.1523	0.5290	0.0000	11,734.3768

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Discount Club	6,186.40	7,955.00	4983.16	9,654,403	9,654,403
Gasoline/Service Station	3,371.20	3,371.20	3371.20	1,942,379	1,942,379
Hotel	1,887.27	1,891.89	1374.45	3,447,747	3,447,747
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	221.60	210.20	102.15	312,484	312,484
Strip Mall	8,156.65	7,737.04	3759.94	11,501,900	11,501,900
Total	19,823.12	21,165.33	13,590.90	26,858,912	26,858,912

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
Discount Club	9.50	7.30	7.30	16.70	64.30	19.00	45	40	15
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	14	27	59
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Discount Club	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Gasoline/Service Station	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Hotel	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Other Non-Asphalt Surfaces	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Parking Lot	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812
Strip Mall	0.573139	0.040894	0.193976	0.114604	0.017740	0.005371	0.017133	0.024527	0.002545	0.002442	0.005942	0.000877	0.000812

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,453.7957	1,453.7957	0.0657	0.0136	1,459.4921
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,453.7957	1,453.7957	0.0657	0.0136	1,459.4921

NaturalGas Mitigated	0.0363	0.3295	0.2768	1.9800e-003		0.0250	0.0250		0.0250	0.0250	0.0000	358.7212	358.7212	6.8800e-003	6.5800e-003	360.8529
NaturalGas Unmitigated	0.0363	0.3295	0.2768	1.9800e-003		0.0250	0.0250		0.0250	0.0250	0.0000	358.7212	358.7212	6.8800e-003	6.5800e-003	360.8529

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	350760	1.8900e-003	0.0172	0.0144	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.7179	18.7179	3.6000e-004	3.4000e-004	18.8291
Gasoline/Service Station	74483.9	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9748	3.9748	8.0000e-005	7.0000e-005	3.9984
Hotel	5.84892e+006	0.0315	0.2867	0.2408	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	312.1207	312.1207	5.9800e-003	5.7200e-003	313.9754
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	11850	6.0000e-005	5.8000e-004	4.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6324	0.6324	1.0000e-005	1.0000e-005	0.6361
Strip Mall	436168	2.3500e-003	0.0214	0.0180	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	23.2756	23.2756	4.5000e-004	4.3000e-004	23.4139
Total		**0.0362**	**0.3295**	**0.2768**	**1.9700e-003**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**358.7212**	**358.7212**	**6.8800e-003**	**6.5700e-003**	**360.8529**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	350760	1.8900e-003	0.0172	0.0144	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.7179	18.7179	3.6000e-004	3.4000e-004	18.8291

Gasoline/Service Station	74483.9	4.0000e-004	3.6500e-003	3.0700e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	3.9748	3.9748	8.0000e-005	7.0000e-005	3.9984
Hotel	5.84892e+006	0.0315	0.2867	0.2408	1.7200e-003		0.0218	0.0218		0.0218	0.0218	0.0000	312.1207	312.1207	5.9800e-003	5.7200e-003	313.9754
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	11850	6.0000e-005	5.8000e-004	4.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6324	0.6324	1.0000e-005	1.0000e-005	0.6361
Strip Mall	436168	2.3500e-003	0.0214	0.0180	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	23.2756	23.2756	4.5000e-004	4.3000e-004	23.4139
Total		**0.0362**	**0.3295**	**0.2768**	**1.9700e-003**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**358.7212**	**358.7212**	**6.8800e-003**	**6.5700e-003**	**360.8529**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	1.58212e+006	460.2569	0.0208	4.3100e-003	462.0603
Gasoline/Service Station	23322.1	6.7847	3.1000e-004	6.0000e-005	6.8113
Hotel	1.00584e+006	292.6104	0.0132	2.7400e-003	293.7569
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	157034	45.6829	2.0700e-003	4.3000e-004	45.8619
Parking Lot	160083	46.5700	2.1100e-003	4.4000e-004	46.7525
Parking Lot	48177.4	14.0154	6.3000e-004	1.3000e-004	14.0703
Strip Mall	1.96736e+006	572.3263	0.0259	5.3500e-003	574.5688
Strip Mall	53450	15.5492	7.0000e-004	1.5000e-004	15.6101
Total		**1,453.7957**	**0.0657**	**0.0136**	**1,459.4921**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	1.58212e+006	460.2569	0.0208	4.3100e-003	462.0603
Gasoline/Service Station	23322.1	6.7847	3.1000e-004	6.0000e-005	6.8113
Hotel	1.00584e+006	292.6104	0.0132	2.7400e-003	293.7569
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	157034	45.6829	2.0700e-003	4.3000e-004	45.8619
Parking Lot	160083	46.5700	2.1100e-003	4.4000e-004	46.7525
Parking Lot	48177.4	14.0154	6.3000e-004	1.3000e-004	14.0703
Strip Mall	1.96736e+006	572.3263	0.0259	5.3500e-003	574.5688
Strip Mall	53450	15.5492	7.0000e-004	1.5000e-004	15.6101
Total		**1,453.7957**	**0.0657**	**0.0136**	**1,459.4921**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	2.2063	5.0000e-005	5.7300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Unmitigated	2.2063	5.0000e-005	5.7300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2746					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Total	**2.2063**	**5.0000e-005**	**5.7300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0118**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2746					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9312					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.4000e-004	5.0000e-005	5.7300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118

Total	**2.2063**	**5.0000e-005**	**5.7300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0118**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	75.2127	1.0161	0.0245	107.9247
Unmitigated	75.2127	1.0161	0.0245	107.9247

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	10.9627 / 6.71909	27.5760	0.3583	8.6600e-003	39.1145
Gasoline/Service Station	0.265638 / 0.16281	0.6682	8.6800e-003	2.1000e-004	0.9478
Hotel	5.85972 / 0.65108	11.7459	0.1914	4.6000e-003	17.9016
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Strip Mall	14.0027 / 8.58228	35.2227	0.4577	0.0111	49.9608
Total		**75.2127**	**1.0161**	**0.0245**	**107.9247**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	10.9627 / 6.71909	27.5760	0.3583	8.6600e-003	39.1145
Gasoline/Service Station	0.265638 / 0.16281	0.6682	8.6800e-003	2.1000e-004	0.9478
Hotel	5.85972 / 0.65108	11.7459	0.1914	4.6000e-003	17.9016
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	14.0027 / 8.58228	35.2227	0.4577	0.0111	49.9608
Total		**75.2127**	**1.0161**	**0.0245**	**107.9247**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	197.3559	11.6634	0.0000	488.9410
Unmitigated	197.3559	11.6634	0.0000	488.9410

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	198.49	40.2917	2.3812	0.0000	99.8209
Total		**197.3559**	**11.6634**	**0.0000**	**488.9410**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	198.49	40.2917	2.3812	0.0000	99.8209
Total		**197.3559**	**11.6634**	**0.0000**	**488.9410**

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

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Construction Haul Truck Idling Emissions

fuel	Dsl
vehicle_class	HHDT
process	IDLEX

Average of emission_rate	Column Labels				
Row Labels	**NOx**	**PM10**	**PM2_5**	**ROG**	**Grand Total**
2020	37.3428984	0.038761291	0.037084494	2.402915815	9.955415
2021	35.93526632	0.033085473	0.03165421	2.388771459	9.597194366
2030	29.71019804	0.014121172	0.013510297	2.354600498	8.023107501
Grand Total	**34.32945425**	**0.028655979**	**0.027416334**	**2.382095924**	**9.191905622**

	ROG	NOx	PM10	PM2_5
Year		**g/hr**		
2020	2.40E+00	3.73E+01	3.88E-02	3.71E-02
2021	2.39E+00	3.59E+01	3.31E-02	3.17E-02
2030	2.35E+00	2.97E+01	1.41E-02	1.35E-02

	ROG	NOx	PM10	PM2_5
Year		**g/min**		
2020	4.00E-02	6.22E-01	6.46E-04	6.18E-04
2021	3.98E-02	5.99E-01	5.51E-04	5.28E-04
2030	3.92E-02	4.95E-01	2.35E-04	2.25E-04

	ROG	NOx	PM10	PM2_5
Year		**lb/min**		
2020	8.83E-05	1.37E-03	1.42E-06	1.36E-06
2021	8.78E-05	1.32E-03	1.22E-06	1.16E-06
2030	8.65E-05	1.09E-03	5.19E-07	4.96E-07

On-Road Haul/Concrete Truck Idling Emissions

Phase 1A- Costco and Gas Station (2020)

Construction Phase	Start	End	First Year of Construction	Total Work Days (6 days per week)	Hours per Day	Total Trucks	Total Truck Trips (In/Out)	Total Truck Trips (In/Out) per Day	Idling Duration (min)	ROG Idling Exhaust EF (lb/min)	NOX Idling Exhaust EF (lb/min)	PM10 Idling Exhaust EF (lb/min)	PM2.5 Idling Exhaust EF (lb/min)	ROG Idling Exhaust Emissions (tons)	NOX Idling Exhaust Emissions (tons)	PM10 Idling Exhaust Emissions (tons)	PM2.5 Idling Exhaust Emissions (tons)
Grading/Excavation	4/6/2020	5/10/2020	2020	30	8	400	800	28	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	2.65E-04	4.12E-03	4.27E-06	4.09E-06
Drainage/Utilities/Sub-Grade	4/22/2020	4/29/2020	2020	7	8	0	0	0	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Foundations/Concrete Pour	4/29/2020	5/15/2020	2020	15	8	600	1200	80	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	3.97E-04	6.17E-03	6.41E-06	6.13E-06
Building Construction	5/16/2020	7/24/2020	2020	60	8	1050	2100	36	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	6.95E-04	1.08E-02	1.12E-05	1.07E-05
Architectural Coatings	5/28/2020	7/24/2020	2020	50	8	0	0	0	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving	7/17/2020	7/24/2020	2020	7	8	7	14	2	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	4.64E-06	7.20E-05	7.48E-08	7.15E-08
													Total	**1.36E-03**	**2.12E-02**	**2.20E-05**	**2.10E-05**

Phase 1B- Hotel and Retail (2020)

Construction Phase	Start	End	First Year of Construction	Total Work Days (5 days per week)	Hours per Day	Total Trucks	Total Truck Trips (In/Out)	Total Truck Trips (In/Out) per Day	Idling Duration (min)	ROG Idling Exhaust EF (lb/min)	NOX Idling Exhaust EF (lb/min)	PM10 Idling Exhaust EF (lb/min)	PM2.5 Idling Exhaust EF (lb/min)	ROG Idling Exhaust Emissions (tons)	NOX Idling Exhaust Emissions (tons)	PM10 Idling Exhaust Emissions (tons)	PM2.5 Idling Exhaust Emissions (tons)
Grading/Excavation	4/6/2020	6/15/2020	2020	51	8	340	680	14	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	2.25E-04	3.50E-03	3.63E-06	3.47E-06
Drainage/Utilities/Sub-Grade	6/16/2020	6/30/2020	2020	11	8	0	0	0	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Foundations/Concrete Pour	7/1/2020	7/30/2020	2020	22	8	510	1020	48	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	3.38E-04	5.25E-03	5.45E-06	5.21E-06
Building Construction	7/31/2020	2/23/2021	2020	148	8	972	1944	14	15	8.83E-05	1.37E-03	1.42E-06	1.36E-06	6.44E-04	1.00E-02	1.04E-05	9.93E-06
Architectural Coatings	2/24/2021	3/20/2021	2021	18	8	0	0	0	15	8.78E-05	1.32E-03	1.22E-06	1.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving	3/21/2021	4/5/2021	2021	11	8	11	22	2	15	8.78E-05	1.32E-03	1.22E-06	1.16E-06	7.24E-06	1.09E-04	1.00E-07	9.60E-08
													Total	**1.21E-03**	**1.89E-02**	**1.96E-05**	**1.87E-05**

Phase 2- Retail (2030)

Construction Phase	Start	End	First Year of Construction	Total Work Days (5 days per week)	Hours per Day	Total Trucks	Total Truck Trips (In/Out)	Total Truck Trips (In/Out) per Day	Idling Duration (min)	ROG Idling Exhaust EF (lb/min)	NOX Idling Exhaust EF (lb/min)	PM10 Idling Exhaust EF (lb/min)	PM2.5 Idling Exhaust EF (lb/min)	ROG Idling Exhaust Emissions (tons)	NOX Idling Exhaust Emissions (tons)	PM10 Idling Exhaust Emissions (tons)	PM2.5 Idling Exhaust Emissions (tons)
Demolition	1/7/2030	2/3/2030	2030	20	8	0	0	0	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grading/Excavation	2/4/2030	3/2/2030	2030	20	8	620	1240	62	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	4.02E-04	5.08E-03	2.41E-06	2.31E-06
Drainage/Utilities/Sub-Grade	3/3/2030	4/6/2030	2030	25	8	0	0	0	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Foundations/Concrete Pour	4/6/2030	4/28/2030	2030	15	8	930	1860	124	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	6.03E-04	7.61E-03	3.62E-06	3.46E-06
Building Construction	4/30/2030	11/11/2030	2030	140	8	1306	2612	20	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	8.47E-04	1.07E-02	5.08E-06	4.86E-06
Architectural Coatings	11/12/2030	12/9/2030	2030	20	8	0	0	0	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Paving	12/10/2030	1/7/2031	2030	21	8	21	42	2	15	8.65E-05	1.09E-03	5.19E-07	4.96E-07	1.36E-05	1.72E-04	8.17E-08	7.82E-08
													Total	**1.87E-03**	**2.36E-02**	**1.12E-05**	**1.07E-05**

Note:
The City estimated project total truck for the grading/excavation and foundations/concrete pour for all phases, and building construction for Phase 1A, the truck trips of building construction of other phases were scaled based on landuse squarefeet as compared to Phase 1a. Paving phase is assumed to have one truck per day.

Phase	ROG Idling Exhaust Emissions (tons)	NOX Idling Exhaust Emissions (tons)	PM10 Idling Exhaust Emissions (tons)	PM2.5 Idling Exhaust Emissions (tons)
Phase 1A/1B	2.58E-03	4.00E-02	4.15E-05	3.97E-05
Phase 2	1.87E-03	2.36E-02	1.12E-05	1.07E-05

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Construction Emissions Summary

Annual Construction Emissions

Construction Phase	Year	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
		tons/year			
Phase 1A & Phase 1B	2020	1.27	5.26	0.21	0.21
	2021	0.81	0.49	0.03	0.03
	Total	*2.08*	*5.75*	*0.24*	*0.24*
Phase 2	2030	1.25	2.77	0.12	0.12
	2031	0.01	0.03	0.00	0.00
	Total	*1.26*	*2.80*	*0.13*	*0.12*

These emissions are generated from CalEEMod and do not include haul truck idling emissions

Annual Truck Idling Emissions

Year	ROG Idling Exhaust (tons)	NOX Idling Exhaust (tons)	PM10 Idling Exhaust (tons)	PM2.5 Idling Exhaust (tons)
Phase 1A/1B	2.58E-03	4.00E-02	4.15E-05	3.97E-05
Phase 2	1.87E-03	2.36E-02	1.12E-05	1.07E-05

Annual Emissions Summary

Construction Phase	Year	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
		tons/year			
Phase 1A & Phase 1B	Construction (excluding Idling)	2.08	5.75	0.24	0.24
	Idling	2.58E-03	4.00E-02	4.15E-05	3.97E-05
	Total	***2.08***	***5.79***	***0.24***	***0.24***
Phase 2	Construction (excluding Idling)	1.26	2.80	0.13	0.12
	Idling	1.87E-03	2.36E-02	1.12E-05	1.07E-05
	Total	***1.26***	***2.83***	***0.13***	***0.12***

Avergae Daily Emissions Summary

Construction Phase	Year	ROG	NOx	Exhaust PM10	Exhaust PM2.5
		Average Daily Emissions (lb/day)			
Phase 1A & Phase 1B	2020/2021	15.08	41.93	1.73	1.73
Phase 2	2030/2031	9.62	21.57	0.95	0.95

Total Annual Emissions by Source (tons per year)

Year	CalEEMod Category	Source	ROG	NOX	PM10 Exh	PM2.5 Ex
2020	Fugitive Dust	Offroad Equipment	0.0000	0.0000	0.0000	0.0000
2020	Off-Road	Offroad Equipment	0.2595	4.1501	0.2093	0.2093
2020	Paving	Offroad Equipment	0.0314	0.0000	0.0000	0.0000
2020	Archit. Coating	Offroad Equipment	0.8769	0.0000	0.0000	0.0000
2020	Hauling	Onroad Truck Travel	0.0303	1.0612	0.0034	0.0033
2020	Hauling	Idling	0.0020	0.0303	0.0000	0.0000
2020	Vendor	Onroad Truck Travel	0.0000	0.0000	0.0000	0.0000
2020	Worker	Worker Commute	0.0687	0.0491	0.0011	0.0010
2021	Fugitive Dust	Offroad Equipment	0.0000	0.0000	0.0000	0.0000
2021	Off-Road	Offroad Equipment	0.0277	0.4091	0.0248	0.0248
2021	Paving	Offroad Equipment	0.0314	0.0000	0.0000	0.0000
2021	Archit. Coating	Offroad Equipment	0.7421	0.0000	0.0000	0.0000
2021	Hauling	Onroad Truck Travel	0.0021	0.0704	0.0002	0.0002
2021	Hauling	Idling	0.0006	0.0097	0.0000	0.0000
2021	Vendor	Onroad Truck Travel	0.0000	0.0000	0.0000	0.0000
2021	Worker	Worker Commute	0.0091	0.0063	0.0002	0.0001
2030	Fugitive Dust	Offroad Equipment	0.0000	0.0000	0.0000	0.0000
2030	Off-Road	Offroad Equipment	0.1199	2.3395	0.1219	0.1219
2030	Paving	Offroad Equipment	0.0239	0.0000	0.0000	0.0000
2030	Archit. Coating	Offroad Equipment	1.0519	0.0000	0.0000	0.0000
2030	Hauling	Onroad Truck Travel	0.0136	0.4130	0.0007	0.0007
2030	Hauling	Idling	0.0018	0.0231	0.0000	0.0000
2030	Vendor	Onroad Truck Travel	0.0000	0.0000	0.0000	0.0000
2030	Worker	Worker Commute	0.0406	0.0211	0.0008	0.0007
2031	Fugitive Dust	Offroad Equipment	0.0000	0.0000	0.0000	0.0000
2031	Off-Road	Offroad Equipment	0.0014	0.0282	0.0015	0.0015
2031	Paving	Offroad Equipment	0.0075	0.0000	0.0000	0.0000
2031	Archit. Coating	Offroad Equipment	0.0000	0.0000	0.0000	0.0000
2031	Hauling	Onroad Truck Travel	0.0000	0.0007	0.0000	0.0000
2031	Vendor	Idling	0.0000	0.0004	0.0000	0.0000
2031	Vendor	Onroad Truck Travel	0.0000	0.0000	0.0000	0.0000
2031	Worker	Worker Commute	0.0000	0.0000	0.0000	0.0000
		Subtotal				

Average Daily Construction Emissions by Source

Phase	CalEEMod Category	Source	ROG	NOX	PM10 Exh	PM2.5 Ex	ROG	NOX	PM10 Exh	PM2.5 Ex
							Average Daily Emissions (lb/day)			
Phase 1A & Phase 1B	Fugitive Dust	Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Off-Road	Offroad Equipment	0.29	4.56	0.23	0.23	2.08	33.04	1.70	1.70
	Paving	Offroad Equipment	0.06	0.00	0.00	0.00	0.46	0.00	0.00	0.00
	Archit. Coating	Offroad Equipment	1.62	0.00	0.00	0.00	11.73	0.00	0.00	0.00
	Hauling	Onroad Truck Travel	0.03	1.13	0.00	0.00	0.23	8.20	0.03	0.03
	Hauling	Idling	0.00	0.04	0.00	0.00	0.02	0.29	0.00	0.00
	Vendor	Onroad Truck Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	Worker Commute	0.08	0.06	0.00	0.00	0.56	0.40	0.01	0.01
		Total	**2.08**	**5.79**	**0.24**	**0.24**	**15.09**	**41.93**	**1.73**	**1.73**
Phase 2	Fugitive Dust	Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Off-Road	Offroad Equipment	0.12	2.37	0.12	0.12	0.93	18.07	0.94	0.94
	Paving	Offroad Equipment	0.03	0.00	0.00	0.00	0.24	0.00	0.00	0.00
	Archit. Coating	Offroad Equipment	1.05	0.00	0.00	0.00	8.03	0.00	0.00	0.00
	Hauling	Onroad Truck Travel	0.01	0.41	0.00	0.00	0.10	3.16	0.01	0.01
	Hauling	Idling	0.00	0.02	0.00	0.00	0.01	0.18	0.00	0.00
	Vendor	Onroad Truck Travel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	Worker Commute	0.04	0.02	0.00	0.00	0.31	0.16	0.01	0.01
		Total	**1.26**	**2.83**	**0.12**	**0.12**	**9.62**	**21.57**	**0.95**	**0.95**

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Emission Calculations

Operational Emissions

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CalEEMod Output – Phase 1 (2021)

Johnson Drive- Phase 1 Operations-2021

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	3.40	Acre	3.40	148,104.00	0
Other Non-Asphalt Surfaces	1.22	Acre	1.22	53,143.20	0
Parking Lot	10.30	Acre	10.30	448,668.00	0
Parking Lot	3.16	Acre	3.16	137,649.60	0
Hotel	231.00	Room	0.77	132,000.00	0
Discount Club	148.00	1000sqft	3.40	148,000.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0
Strip Mall	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	293.67	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E's 2016 CO2 emission factor based on The Climate Registry's 2018 Emissions Factor Report

Land Use - Project Specific Information

Consumer Products - Consumer product emissions only associated with hotel land use

Area Coating - Coating only applied to parking lot asphalt surfaces

Energy Use - CalEEmod default 2016 T24 energy rates adjusted to represent 2019 T24 energy rates.

Area Mitigation - Low VOC-Paints, 10g VOC/liter

Fleet Mix - Light duty vehicle categories consistent with HRA

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	47254	34006
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	10
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	10
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	10
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	10
tblConsumerProducts	ROG_EF	2.14E-05	9.8E-06
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	5.25	11.98
tblEnergyUse	LightingElect	3.08	2.16
tblEnergyUse	LightingElect	2.35	1.65
tblEnergyUse	LightingElect	0.35	0.25
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	NT24E	2.68	8.75
tblEnergyUse	T24E	2.76	6.30
tblEnergyUse	T24E	1.48	1.04
tblEnergyUse	T24E	2.05	1.44
tblEnergyUse	T24E	2.76	1.93
tblEnergyUse	T24NG	2.37	1.66
tblEnergyUse	T24NG	19.71	13.80
tblEnergyUse	T24NG	39.56	27.69
tblEnergyUse	T24NG	2.37	1.66
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00

tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.58	0.60
tblFleetMix	LDA	0.58	0.60
tblFleetMix	LDA	0.58	0.60
tblFleetMix	LDA	0.58	0.60
tblFleetMix	LDA	0.58	0.60
tblFleetMix	LDA	0.58	0.60
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	5.3610e-003	5.4310e-003
tblFleetMix	LHD2	5.3610e-003	5.4310e-003

tblFleetMix	LHD2	5.3610e-003	5.4310e-003
tblFleetMix	LHD2	5.3610e-003	5.4310e-003
tblFleetMix	LHD2	5.3610e-003	5.4310e-003
tblFleetMix	LHD2	5.3610e-003	5.4310e-003
tblFleetMix	MCY	5.9040e-003	5.7730e-003
tblFleetMix	MCY	5.9040e-003	5.7730e-003
tblFleetMix	MCY	5.9040e-003	5.7730e-003
tblFleetMix	MCY	5.9040e-003	5.7730e-003
tblFleetMix	MCY	5.9040e-003	5.7730e-003
tblFleetMix	MCY	5.9040e-003	5.7730e-003
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	7.8900e-004	6.9200e-004
tblFleetMix	MH	7.8900e-004	6.9200e-004
tblFleetMix	MH	7.8900e-004	6.9200e-004
tblFleetMix	MH	7.8900e-004	6.9200e-004
tblFleetMix	MH	7.8900e-004	6.9200e-004
tblFleetMix	MH	7.8900e-004	6.9200e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.5810e-003	2.7880e-003
tblFleetMix	OBUS	2.5810e-003	2.7880e-003

tblFleetMix	OBUS	2.5810e-003	2.7880e-003
tblFleetMix	OBUS	2.5810e-003	2.7880e-003
tblFleetMix	OBUS	2.5810e-003	2.7880e-003
tblFleetMix	OBUS	2.5810e-003	2.7880e-003
tblFleetMix	SBUS	8.8100e-004	9.5100e-004
tblFleetMix	SBUS	8.8100e-004	9.5100e-004
tblFleetMix	SBUS	8.8100e-004	9.5100e-004
tblFleetMix	SBUS	8.8100e-004	9.5100e-004
tblFleetMix	SBUS	8.8100e-004	9.5100e-004
tblFleetMix	SBUS	8.8100e-004	9.5100e-004
tblFleetMix	UBUS	2.3490e-003	1.8130e-003
tblFleetMix	UBUS	2.3490e-003	1.8130e-003
tblFleetMix	UBUS	2.3490e-003	1.8130e-003
tblFleetMix	UBUS	2.3490e-003	1.8130e-003
tblFleetMix	UBUS	2.3490e-003	1.8130e-003
tblFleetMix	UBUS	2.3490e-003	1.8130e-003
tblLandUse	LandUseSquareFeet	335,412.00	132,000.00
tblLandUse	LotAcreage	7.70	0.77
tblProjectCharacteristics	CO2IntensityFactor	641.35	293.67
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	27.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00

tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	53.75	59.80
tblVehicleTrips	ST_TR	168.56	0.00
tblVehicleTrips	ST_TR	8.19	7.99
tblVehicleTrips	ST_TR	42.04	34.89
tblVehicleTrips	SU_TR	33.67	59.80
tblVehicleTrips	SU_TR	168.56	0.00
tblVehicleTrips	SU_TR	5.95	7.99
tblVehicleTrips	SU_TR	20.43	34.89
tblVehicleTrips	WD_TR	41.80	47.03
tblVehicleTrips	WD_TR	168.56	0.00
tblVehicleTrips	WD_TR	8.17	7.99
tblVehicleTrips	WD_TR	44.32	29.82
tblWater	IndoorWaterUseRate	10,962,733.18	4,000,000.00
tblWater	OutdoorWaterUseRate	6,719,094.53	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4072	4.0379	3.0056	8.6900e-003	0.5434	0.1456	0.6890	0.1945	0.1358	0.3303	0.0000	791.4349	791.4349	0.1024	0.0000	793.9956
2021	0.4883	4.5565	3.8785	0.0131	0.5554	0.1298	0.6852	0.1510	0.1220	0.2729	0.0000	1,201.1136	1,201.1136	0.1088	0.0000	1,203.8323

2022	1.6696	0.0157	0.0361	9.0000e-005	6.8700e-003	8.6000e-004	7.7400e-003	1.8300e-003	8.6000e-004	2.6900e-003	0.0000	8.1517	8.1517	2.8000e-004	0.0000	8.1588
Maximum	**1.6696**	**4.5565**	**3.8785**	**0.0131**	**0.5554**	**0.1456**	**0.6890**	**0.1945**	**0.1358**	**0.3303**	**0.0000**	**1,201.1136**	**1,201.1136**	**0.1088**	**0.0000**	**1,203.8323**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4072	4.0379	3.0056	8.6900e-003	0.5434	0.1456	0.6890	0.1945	0.1358	0.3303	0.0000	791.4346	791.4346	0.1024	0.0000	793.9953
2021	0.4883	4.5565	3.8785	0.0131	0.5554	0.1298	0.6852	0.1510	0.1220	0.2729	0.0000	1,201.1133	1,201.1133	0.1088	0.0000	1,203.8320
2022	1.6696	0.0157	0.0361	9.0000e-005	6.8700e-003	8.6000e-004	7.7400e-003	1.8300e-003	8.6000e-004	2.6900e-003	0.0000	8.1517	8.1517	2.8000e-004	0.0000	8.1588
Maximum	**1.6696**	**4.5565**	**3.8785**	**0.0131**	**0.5554**	**0.1456**	**0.6890**	**0.1945**	**0.1358**	**0.3303**	**0.0000**	**1,201.1133**	**1,201.1133**	**0.1088**	**0.0000**	**1,203.8320**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-6-2020**	**7-5-2020**	1.5628	1.5628
2	**7-6-2020**	**10-5-2020**	1.4619	1.4619
3	**10-6-2020**	**1-5-2021**	1.4718	1.4718
4	**1-6-2021**	**4-5-2021**	1.3091	1.3091
5	**4-6-2021**	**7-5-2021**	1.3094	1.3094
6	**7-6-2021**	**10-5-2021**	1.3246	1.3246
7	**10-6-2021**	**1-5-2022**	1.3200	1.3200
8	**1-6-2022**	**4-5-2022**	1.3848	1.3848
		Highest	1.5628	1.5628

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6770	4.0000e-005	3.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0400e-003
Energy	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	916.6158	916.6158	0.0710	0.0182	923.8185
Mobile	2.5389	6.6279	31.8894	0.1025	9.8431	0.0885	9.9316	2.6389	0.0825	2.7214	0.0000	9,317.0490	9,317.0490	0.2829	0.0000	9,324.1211
Waste						0.0000	0.0000		0.0000	0.0000	158.1300	0.0000	158.1300	9.3452	0.0000	391.7603
Water						0.0000	0.0000		0.0000	0.0000	3.3298	8.0504	11.3802	0.3428	8.2400e-003	22.4057
Total	**3.2407**	**6.8531**	**32.0824**	**0.1039**	**9.8431**	**0.1056**	**9.9487**	**2.6389**	**0.0997**	**2.7385**	**161.4598**	**10,241.7227**	**10,403.1825**	**10.0419**	**0.0265**	**10,662.1135**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5403	4.0000e-005	3.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0400e-003
Energy	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	916.6158	916.6158	0.0710	0.0182	923.8185
Mobile	2.5389	6.6279	31.8894	0.1025	9.8431	0.0885	9.9316	2.6389	0.0825	2.7214	0.0000	9,317.0490	9,317.0490	0.2829	0.0000	9,324.1211
Waste						0.0000	0.0000		0.0000	0.0000	158.1300	0.0000	158.1300	9.3452	0.0000	391.7603
Water						0.0000	0.0000		0.0000	0.0000	3.3298	8.0504	11.3802	0.3428	8.2400e-003	22.4057

Total	**3.1040**	**6.8531**	**32.0824**	**0.1039**	**9.8431**	**0.1056**	**9.9487**	**2.6389**	**0.0997**	**2.7385**	**161.4598**	**10,241.7227**	**10,403.1825**	**10.0419**	**0.0265**	**10,662.1135**

	ROG	NOx	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	**4.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/6/2020	5/1/2020	5	20	
2	Site Preparation	Site Preparation	5/2/2020	5/15/2020	5	10	
3	Grading	Grading	5/16/2020	7/3/2020	5	35	
4	Building Construction	Building Construction	7/4/2020	12/3/2021	5	370	
5	Paving	Paving	12/4/2021	12/31/2021	5	20	
6	Architectural Coating	Architectural Coating	1/1/2022	1/28/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 18.08

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 431,735; Non-Residential Outdoor: 143,912; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	436.00	176.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	87.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**		**0.0166**	**0.0166**		**0.0154**	**0.0154**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**5.0000e-004**	**3.6000e-004**	**3.6800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0384**	**1.0384**	**3.0000e-005**	**0.0000**	**1.0391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385

Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**		**0.0166**	**0.0166**		**0.0154**	**0.0154**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**5.0000e-004**	**3.6000e-004**	**3.6800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0384**	**1.0384**	**3.0000e-005**	**0.0000**	**1.0391**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6231	0.6231	2.0000e-005	0.0000	0.6234
Total	**3.0000e-004**	**2.1000e-004**	**2.2100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6231**	**0.6231**	**2.0000e-005**	**0.0000**	**0.6234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6231	0.6231	2.0000e-005	0.0000	0.6234
Total	**3.0000e-004**	**2.1000e-004**	**2.2100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6231**	**0.6231**	**2.0000e-005**	**0.0000**	**0.6234**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0779	0.8785	0.5593	1.0900e-003		0.0380	0.0380		0.0350	0.0350	0.0000	95.3475	95.3475	0.0308	0.0000	96.1185
Total	**0.0779**	**0.8785**	**0.5593**	**1.0900e-003**	**0.1518**	**0.0380**	**0.1898**	**0.0629**	**0.0350**	**0.0979**	**0.0000**	**95.3475**	**95.3475**	**0.0308**	**0.0000**	**96.1185**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.3000e-004	8.6000e-003	3.0000e-005	2.7700e-003	2.0000e-005	2.7800e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.4230	2.4230	6.0000e-005	0.0000	2.4245
Total	**1.1600e-003**	**8.3000e-004**	**8.6000e-003**	**3.0000e-005**	**2.7700e-003**	**2.0000e-005**	**2.7800e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4230**	**2.4230**	**6.0000e-005**	**0.0000**	**2.4245**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0779	0.8785	0.5593	1.0900e-003		0.0380	0.0380		0.0350	0.0350	0.0000	95.3474	95.3474	0.0308	0.0000	96.1183
Total	**0.0779**	**0.8785**	**0.5593**	**1.0900e-003**	**0.1518**	**0.0380**	**0.1898**	**0.0629**	**0.0350**	**0.0979**	**0.0000**	**95.3474**	**95.3474**	**0.0308**	**0.0000**	**96.1183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.3000e-004	8.6000e-003	3.0000e-005	2.7700e-003	2.0000e-005	2.7800e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.4230	2.4230	6.0000e-005	0.0000	2.4245
Total	**1.1600e-003**	**8.3000e-004**	**8.6000e-003**	**3.0000e-005**	**2.7700e-003**	**2.0000e-005**	**2.7800e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4230**	**2.4230**	**6.0000e-005**	**0.0000**	**2.4245**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1367	1.2375	1.0867	1.7400e-003		0.0721	0.0721		0.0678	0.0678	0.0000	149.3884	149.3884	0.0365	0.0000	150.2996
Total	**0.1367**	**1.2375**	**1.0867**	**1.7400e-003**		**0.0721**	**0.0721**		**0.0678**	**0.0678**	**0.0000**	**149.3884**	**149.3884**	**0.0365**	**0.0000**	**150.2996**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0439	1.3098	0.3293	3.0900e-003	0.0744	6.3900e-003	0.0808	0.0215	6.1100e-003	0.0276	0.0000	297.2174	297.2174	0.0153	0.0000	297.6007
Worker	0.0932	0.0667	0.6907	2.1500e-003	0.2222	1.5000e-003	0.2237	0.0591	1.3800e-003	0.0605	0.0000	194.6832	194.6832	4.7100e-003	0.0000	194.8010
Total	**0.1371**	**1.3765**	**1.0200**	**5.2400e-003**	**0.2967**	**7.8900e-003**	**0.3045**	**0.0807**	**7.4900e-003**	**0.0881**	**0.0000**	**491.9006**	**491.9006**	**0.0200**	**0.0000**	**492.4016**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1367	1.2375	1.0867	1.7400e-003		0.0721	0.0721		0.0678	0.0678	0.0000	149.3883	149.3883	0.0365	0.0000	150.2994

Total	**0.1367**	**1.2375**	**1.0867**	**1.7400e-003**		**0.0721**	**0.0721**		**0.0678**	**0.0678**	**0.0000**	**149.3883**	**149.3883**	**0.0365**	**0.0000**	**150.2994**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0439	1.3098	0.3293	3.0900e-003	0.0744	6.3900e-003	0.0808	0.0215	6.1100e-003	0.0276	0.0000	297.2174	297.2174	0.0153	0.0000	297.6007
Worker	0.0932	0.0667	0.6907	2.1500e-003	0.2222	1.5000e-003	0.2237	0.0591	1.3800e-003	0.0605	0.0000	194.6832	194.6832	4.7100e-003	0.0000	194.8010
Total	**0.1371**	**1.3765**	**1.0200**	**5.2400e-003**	**0.2967**	**7.8900e-003**	**0.3045**	**0.0807**	**7.4900e-003**	**0.0881**	**0.0000**	**491.9006**	**491.9006**	**0.0200**	**0.0000**	**492.4016**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2291	2.1006	1.9973	3.2400e-003		0.1155	0.1155		0.1086	0.1086	0.0000	279.1229	279.1229	0.0673	0.0000	280.8064
Total	**0.2291**	**2.1006**	**1.9973**	**3.2400e-003**		**0.1155**	**0.1155**		**0.1086**	**0.1086**	**0.0000**	**279.1229**	**279.1229**	**0.0673**	**0.0000**	**280.8064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0673	2.2152	0.5529	5.7200e-003	0.1391	4.8200e-003	0.1439	0.0402	4.6100e-003	0.0448	0.0000	550.0167	550.0167	0.0270	0.0000	550.6926
Worker	0.1612	0.1112	1.1784	3.8800e-003	0.4151	2.7200e-003	0.4179	0.1104	2.5000e-003	0.1129	0.0000	350.9486	350.9486	7.8700e-003	0.0000	351.1453
Total	**0.2286**	**2.3264**	**1.7313**	**9.6000e-003**	**0.5542**	**7.5400e-003**	**0.5618**	**0.1507**	**7.1100e-003**	**0.1578**	**0.0000**	**900.9653**	**900.9653**	**0.0349**	**0.0000**	**901.8380**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2291	2.1006	1.9973	3.2400e-003		0.1155	0.1155		0.1086	0.1086	0.0000	279.1226	279.1226	0.0673	0.0000	280.8061
Total	**0.2291**	**2.1006**	**1.9973**	**3.2400e-003**		**0.1155**	**0.1155**		**0.1086**	**0.1086**	**0.0000**	**279.1226**	**279.1226**	**0.0673**	**0.0000**	**280.8061**

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0673	2.2152	0.5529	5.7200e-003	0.1391	4.8200e-003	0.1439	0.0402	4.6100e-003	0.0448	0.0000	550.0167	550.0167	0.0270	0.0000	550.6926
Worker	0.1612	0.1112	1.1784	3.8800e-003	0.4151	2.7200e-003	0.4179	0.1104	2.5000e-003	0.1129	0.0000	350.9486	350.9486	7.8700e-003	0.0000	351.1453
Total	**0.2286**	**2.3264**	**1.7313**	**9.6000e-003**	**0.5542**	**7.5400e-003**	**0.5618**	**0.1507**	**7.1100e-003**	**0.1578**	**0.0000**	**900.9653**	**900.9653**	**0.0349**	**0.0000**	**901.8380**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0302**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.3600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0020	1.0020	2.0000e-005	0.0000	1.0026
Total	**4.6000e-004**	**3.2000e-004**	**3.3600e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0020**	**1.0020**	**2.0000e-005**	**0.0000**	**1.0026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0302**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.3600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0020	1.0020	2.0000e-005	0.0000	1.0026
Total	**4.6000e-004**	**3.2000e-004**	**3.3600e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0020**	**1.0020**	**2.0000e-005**	**0.0000**	**1.0026**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6651					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.6671**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	1.6500e-003	0.0179	6.0000e-005	6.8700e-003	4.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	5.5985	5.5985	1.2000e-004	0.0000	5.6014
Total	**2.4900e-003**	**1.6500e-003**	**0.0179**	**6.0000e-005**	**6.8700e-003**	**4.0000e-005**	**6.9200e-003**	**1.8300e-003**	**4.0000e-005**	**1.8700e-003**	**0.0000**	**5.5985**	**5.5985**	**1.2000e-004**	**0.0000**	**5.6014**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6651					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.6671**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	1.6500e-003	0.0179	6.0000e-005	6.8700e-003	4.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	5.5985	5.5985	1.2000e-004	0.0000	5.6014
Total	**2.4900e-003**	**1.6500e-003**	**0.0179**	**6.0000e-005**	**6.8700e-003**	**4.0000e-005**	**6.9200e-003**	**1.8300e-003**	**4.0000e-005**	**1.8700e-003**	**0.0000**	**5.5985**	**5.5985**	**1.2000e-004**	**0.0000**	**5.6014**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.5389	6.6279	31.8894	0.1025	9.8431	0.0885	9.9316	2.6389	0.0825	2.7214	0.0000	9,317.0490	9,317.0490	0.2829	0.0000	9,324.1211
Unmitigated	2.5389	6.6279	31.8894	0.1025	9.8431	0.0885	9.9316	2.6389	0.0825	2.7214	0.0000	9,317.0490	9,317.0490	0.2829	0.0000	9,324.1211

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Discount Club	6,960.44	8,850.40	8850.40	20,933,198	20,933,198
Gasoline/Service Station	0.00	0.00	0.00		
Hotel	1,845.69	1,845.69	1845.69	5,191,105	5,191,105
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	149.10	174.45	174.45	436,217	436,217
Total	8,955.23	10,870.54	10,870.54	26,560,520	26,560,520

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
Discount Club	9.50	7.30	7.30	16.70	64.30	19.00	100	0	0
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Discount Club	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Gasoline/Service Station	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Hotel	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Other Non-Asphalt Surfaces	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Parking Lot	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Strip Mall	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	671.4701	671.4701	0.0663	0.0137	677.2160
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	671.4701	671.4701	0.0663	0.0137	677.2160
NaturalGas Mitigated	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1457	245.1457	4.7000e-003	4.4900e-003	246.6025
NaturalGas Unmitigated	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1457	245.1457	4.7000e-003	4.4900e-003	246.6025

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	245680	1.3200e-003	0.0120	0.0101	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1104	13.1104	2.5000e-004	2.4000e-004	13.1883
Gasoline/Service Station	57797	3.1000e-004	2.8300e-003	2.3800e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0843	3.0843	6.0000e-005	6.0000e-005	3.1026
Hotel	4.28208e+006	0.0231	0.2099	0.1763	1.2600e-003		0.0160	0.0160		0.0160	0.0160	0.0000	228.5081	228.5081	4.3800e-003	4.1900e-003	229.8660

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8300	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4429	0.4429	1.0000e-005	1.0000e-005	0.4456
Total		**0.0248**	**0.2252**	**0.1892**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**	**0.0000**	**245.1457**	**245.1457**	**4.7000e-003**	**4.5000e-003**	**246.6025**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	245680	1.3200e-003	0.0120	0.0101	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1104	13.1104	2.5000e-004	2.4000e-004	13.1883
Gasoline/Service Station	57797	3.1000e-004	2.8300e-003	2.3800e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0843	3.0843	6.0000e-005	6.0000e-005	3.1026
Hotel	4.28208e+006	0.0231	0.2099	0.1763	1.2600e-003		0.0160	0.0160		0.0160	0.0160	0.0000	228.5081	228.5081	4.3800e-003	4.1900e-003	229.8660
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8300	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4429	0.4429	1.0000e-005	1.0000e-005	0.4456
Total		**0.0248**	**0.2252**	**0.1892**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**	**0.0000**	**245.1457**	**245.1457**	**4.7000e-003**	**4.5000e-003**	**246.6025**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Discount Club	4.00044e+006	532.8845	0.0526	0.0109	537.4445
Gasoline/Service Station	19482.2	2.5952	2.6000e-004	5.0000e-005	2.6174
Hotel	832920	110.9503	0.0110	2.2700e-003	111.8998
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	112167	14.9414	1.4800e-003	3.1000e-004	15.0692
Parking Lot	34412.4	4.5840	4.5000e-004	9.0000e-005	4.6232
Strip Mall	41400	5.5148	5.4000e-004	1.1000e-004	5.5619
Total		**671.4701**	**0.0663**	**0.0137**	**677.2160**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	4.00044e+006	532.8845	0.0526	0.0109	537.4445
Gasoline/Service Station	19482.2	2.5952	2.6000e-004	5.0000e-005	2.6174
Hotel	832920	110.9503	0.0110	2.2700e-003	111.8998
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	112167	14.9414	1.4800e-003	3.1000e-004	15.0692
Parking Lot	34412.4	4.5840	4.5000e-004	9.0000e-005	4.6232
Strip Mall	41400	5.5148	5.4000e-004	1.1000e-004	5.5619
Total		**671.4701**	**0.0663**	**0.0137**	**677.2160**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5403	4.0000e-005	3.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0400e-003
Unmitigated	0.6770	4.0000e-005	3.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6000e-004	4.0000e-005	3.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0400e-003

Total	**0.6770**	**4.0000e-005**	**3.8900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.5400e-003**	**7.5400e-003**	**2.0000e-005**	**0.0000**	**8.0400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0252					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5148					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6000e-004	4.0000e-005	3.8900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0400e-003
Total	**0.5403**	**4.0000e-005**	**3.8900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.5400e-003**	**7.5400e-003**	**2.0000e-005**	**0.0000**	**8.0400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.3802	0.3428	8.2400e-003	22.4057
Unmitigated	11.3802	0.3428	8.2400e-003	22.4057

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	4 / 0	4.1521	0.1306	3.1400e-003	8.3524
Gasoline/Service Station	0.265638 / 0.16281	0.3517	8.6800e-003	2.1000e-004	0.6312
Hotel	5.85972 / 0.65108	6.3861	0.1914	4.6000e-003	12.5419
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.370363 / 0.226996	0.4903	0.0121	2.9000e-004	0.8801
Total		**11.3802**	**0.3428**	**8.2400e-003**	**22.4057**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	4 / 0	4.1521	0.1306	3.1400e-003	8.3524
Gasoline/Service Station	0.265638 / 0.16281	0.3517	8.6800e-003	2.1000e-004	0.6312
Hotel	5.85972 / 0.65108	6.3861	0.1914	4.6000e-003	12.5419
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Strip Mall	0.370363 / 0.226996	0.4903	0.0121	2.9000e-004	0.8801
Total		**11.3802**	**0.3428**	**8.2400e-003**	**22.4057**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	158.1300	9.3452	0.0000	391.7603
Unmitigated	158.1300	9.3452	0.0000	391.7603

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020

Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**158.1300**	**9.3452**	**0.0000**	**391.7603**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**158.1300**	**9.3452**	**0.0000**	**391.7603**

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

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CalEEMod Output – Phase 1 (2031)

Johnson Drive- Phase 1 Operations-2030

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	3.40	Acre	3.40	148,104.00	0
Other Non-Asphalt Surfaces	1.22	Acre	1.22	53,143.20	0
Parking Lot	10.30	Acre	10.30	448,668.00	0
Parking Lot	3.16	Acre	3.16	137,649.60	0
Hotel	231.00	Room	0.77	132,000.00	0
Discount Club	148.00	1000sqft	3.40	148,000.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0
Strip Mall	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	276.0374172	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 emission factor modified to reflect PG&E's 2030 RPS

Land Use - Project Specific Information

Consumer Products - Consumer product emissions only associated with hotel land use

Area Coating - Coating only applied to parking lot asphalt surfaces

Energy Use - CalEEmod default 2016 T24 energy rates adjusted to represent 2019 T24 energy rates.

Fleet Mix - Light duty vehicle categories consistent with HRA

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	47,254.00	34,006.42
tblAreaCoating	Area_Parking	47254	34006.4208
tblConsumerProducts	ROG_EF	2.14E-05	9.81434802926099E-06
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	5.25	11.98
tblEnergyUse	LightingElect	3.08	2.16
tblEnergyUse	LightingElect	2.35	1.65
tblEnergyUse	LightingElect	0.35	0.25
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	NT24E	2.68	8.75
tblEnergyUse	T24E	2.76	6.30
tblEnergyUse	T24E	1.48	1.04
tblEnergyUse	T24E	2.05	1.44
tblEnergyUse	T24E	2.76	1.93
tblEnergyUse	T24NG	2.37	1.66
tblEnergyUse	T24NG	19.71	13.80
tblEnergyUse	T24NG	39.56	27.69
tblEnergyUse	T24NG	2.37	1.66
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00

tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD2	5.2740e-003	5.4306e-003
tblFleetMix	LHD2	5.2740e-003	5.4306e-003
tblFleetMix	LHD2	5.2740e-003	5.4306e-003
tblFleetMix	LHD2	5.2740e-003	5.4306e-003
tblFleetMix	LHD2	5.2740e-003	5.4306e-003
tblFleetMix	LHD2	5.2740e-003	5.4306e-003

tblFleetMix	MCY	5.6260e-003	5.7734e-003
tblFleetMix	MCY	5.6260e-003	5.7734e-003
tblFleetMix	MCY	5.6260e-003	5.7734e-003
tblFleetMix	MCY	5.6260e-003	5.7734e-003
tblFleetMix	MCY	5.6260e-003	5.7734e-003
tblFleetMix	MCY	5.6260e-003	5.7734e-003
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	6.7600e-004	6.9182e-004
tblFleetMix	MH	6.7600e-004	6.9182e-004
tblFleetMix	MH	6.7600e-004	6.9182e-004
tblFleetMix	MH	6.7600e-004	6.9182e-004
tblFleetMix	MH	6.7600e-004	6.9182e-004
tblFleetMix	MH	6.7600e-004	6.9182e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.6990e-003	2.7879e-003
tblFleetMix	OBUS	2.6990e-003	2.7879e-003
tblFleetMix	OBUS	2.6990e-003	2.7879e-003
tblFleetMix	OBUS	2.6990e-003	2.7879e-003
tblFleetMix	OBUS	2.6990e-003	2.7879e-003
tblFleetMix	OBUS	2.6990e-003	2.7879e-003

tblFleetMix	SBUS	9.2100e-004	9.5126e-004
tblFleetMix	SBUS	9.2100e-004	9.5126e-004
tblFleetMix	SBUS	9.2100e-004	9.5126e-004
tblFleetMix	SBUS	9.2100e-004	9.5126e-004
tblFleetMix	SBUS	9.2100e-004	9.5126e-004
tblFleetMix	SBUS	9.2100e-004	9.5126e-004
tblFleetMix	UBUS	1.7890e-003	1.8130e-003
tblFleetMix	UBUS	1.7890e-003	1.8130e-003
tblFleetMix	UBUS	1.7890e-003	1.8130e-003
tblFleetMix	UBUS	1.7890e-003	1.8130e-003
tblFleetMix	UBUS	1.7890e-003	1.8130e-003
tblFleetMix	UBUS	1.7890e-003	1.8130e-003
tblLandUse	LandUseSquareFeet	335,412.00	132,000.00
tblLandUse	LotAcreage	7.70	0.77
tblProjectCharacteristics	CO2IntensityFactor	641.35	276.037417244559
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	27.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	53.75	59.80

tblVehicleTrips	ST_TR	168.56	0.00
tblVehicleTrips	ST_TR	8.19	7.99
tblVehicleTrips	ST_TR	42.04	34.89
tblVehicleTrips	SU_TR	33.67	59.80
tblVehicleTrips	SU_TR	168.56	0.00
tblVehicleTrips	SU_TR	5.95	7.99
tblVehicleTrips	SU_TR	20.43	34.89
tblVehicleTrips	WD_TR	41.80	47.03
tblVehicleTrips	WD_TR	168.56	0.00
tblVehicleTrips	WD_TR	8.17	7.99
tblVehicleTrips	WD_TR	44.32	29.82
tblWater	IndoorWaterUseRate	10,962,733.18	4,000,000.00
tblWater	OutdoorWaterUseRate	6,719,094.53	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4072	4.0379	3.0056	8.6900e-003	0.5434	0.1456	0.6890	0.1945	0.1358	0.3303	0.0000	791.4349	791.4349	0.1024	0.0000	793.9956
2021	0.4883	4.5565	3.8785	0.0131	0.5554	0.1298	0.6852	0.1510	0.1220	0.2729	0.0000	1,201.1136	1,201.1136	0.1088	0.0000	1,203.8323
2022	1.6236	0.0157	0.0361	9.0000e-005	6.8700e-003	8.6000e-004	7.7400e-003	1.8300e-003	8.6000e-004	2.6900e-003	0.0000	8.1517	8.1517	2.8000e-004	0.0000	8.1588
Maximum	**1.6236**	**4.5565**	**3.8785**	**0.0131**	**0.5554**	**0.1456**	**0.6890**	**0.1945**	**0.1358**	**0.3303**	**0.0000**	**1,201.1136**	**1,201.1136**	**0.1088**	**0.0000**	**1,203.8323**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4072	4.0379	3.0056	8.6900e-003	0.5434	0.1456	0.6890	0.1945	0.1358	0.3303	0.0000	791.4346	791.4346	0.1024	0.0000	793.9953
2021	0.4883	4.5565	3.8785	0.0131	0.5554	0.1298	0.6852	0.1510	0.1220	0.2729	0.0000	1,201.1133	1,201.1133	0.1088	0.0000	1,203.8320
2022	1.6236	0.0157	0.0361	9.0000e-005	6.8700e-003	8.6000e-004	7.7400e-003	1.8300e-003	8.6000e-004	2.6900e-003	0.0000	8.1517	8.1517	2.8000e-004	0.0000	8.1588
Maximum	**1.6236**	**4.5565**	**3.8785**	**0.0131**	**0.5554**	**0.1456**	**0.6890**	**0.1945**	**0.1358**	**0.3303**	**0.0000**	**1,201.1133**	**1,201.1133**	**0.1088**	**0.0000**	**1,203.8320**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-6-2020**	**7-5-2020**	1.5628	1.5628
2	**7-6-2020**	**10-5-2020**	1.4619	1.4619
3	**10-6-2020**	**1-5-2021**	1.4718	1.4718
4	**1-6-2021**	**4-5-2021**	1.3091	1.3091
5	**4-6-2021**	**7-5-2021**	1.3094	1.3094
6	**7-6-2021**	**10-5-2021**	1.3246	1.3246
7	**10-6-2021**	**1-5-2022**	1.3118	1.3118
8	**1-6-2022**	**4-5-2022**	1.3469	1.3469
		Highest	1.5628	1.5628

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6778	3.0000e-005	3.8600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0300e-003
Energy	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	876.2442	876.2442	0.0710	0.0182	883.4464
Mobile	1.5663	3.8168	18.7881	0.0776	9.8386	0.0560	9.8946	2.6369	0.0520	2.6890	0.0000	7,073.4964	7,073.4964	0.1762	0.0000	7,077.9017
Waste						0.0000	0.0000		0.0000	0.0000	158.1300	0.0000	158.1300	9.3452	0.0000	391.7603
Water						0.0000	0.0000		0.0000	0.0000	3.3298	7.5670	10.8968	0.3428	8.2400e-003	21.9223
Total	**2.2688**	**4.0420**	**18.9811**	**0.0789**	**9.8386**	**0.0732**	**9.9118**	**2.6369**	**0.0692**	**2.7061**	**161.4598**	**7,957.3152**	**8,118.7750**	**9.9352**	**0.0265**	**8,375.0387**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6778	3.0000e-005	3.8600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0300e-003
Energy	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	876.2442	876.2442	0.0710	0.0182	883.4464
Mobile	1.5663	3.8168	18.7881	0.0776	9.8386	0.0560	9.8946	2.6369	0.0520	2.6890	0.0000	7,073.4964	7,073.4964	0.1762	0.0000	7,077.9017
Waste						0.0000	0.0000		0.0000	0.0000	158.1300	0.0000	158.1300	9.3452	0.0000	391.7603
Water						0.0000	0.0000		0.0000	0.0000	3.3298	7.5670	10.8968	0.3428	8.2400e-003	21.9223
Total	**2.2688**	**4.0420**	**18.9811**	**0.0789**	**9.8386**	**0.0732**	**9.9118**	**2.6369**	**0.0692**	**2.7061**	**161.4598**	**7,957.3152**	**8,118.7750**	**9.9352**	**0.0265**	**8,375.0387**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/6/2020	5/1/2020	5	20	
2	Site Preparation	Site Preparation	5/2/2020	5/15/2020	5	10	
3	Grading	Grading	5/16/2020	7/3/2020	5	35	
4	Building Construction	Building Construction	7/4/2020	12/3/2021	5	370	
5	Paving	Paving	12/4/2021	12/31/2021	5	20	
6	Architectural Coating	Architectural Coating	1/1/2022	1/28/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 18.08

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 431,735; Non-Residential Outdoor: 143,912; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	436.00	176.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	87.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386

Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**		**0.0166**	**0.0166**		**0.0154**	**0.0154**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**5.0000e-004**	**3.6000e-004**	**3.6800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0384**	**1.0384**	**3.0000e-005**	**0.0000**	**1.0391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**		**0.0166**	**0.0166**		**0.0154**	**0.0154**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**5.0000e-004**	**3.6000e-004**	**3.6800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0384**	**1.0384**	**3.0000e-005**	**0.0000**	**1.0391**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6231	0.6231	2.0000e-005	0.0000	0.6234
Total	**3.0000e-004**	**2.1000e-004**	**2.2100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6231**	**0.6231**	**2.0000e-005**	**0.0000**	**0.6234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0903**	**0.0110**	**0.1013**	**0.0497**	**0.0101**	**0.0598**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.2100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6231	0.6231	2.0000e-005	0.0000	0.6234
Total	**3.0000e-004**	**2.1000e-004**	**2.2100e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6231**	**0.6231**	**2.0000e-005**	**0.0000**	**0.6234**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0779	0.8785	0.5593	1.0900e-003		0.0380	0.0380		0.0350	0.0350	0.0000	95.3475	95.3475	0.0308	0.0000	96.1185
Total	**0.0779**	**0.8785**	**0.5593**	**1.0900e-003**	**0.1518**	**0.0380**	**0.1898**	**0.0629**	**0.0350**	**0.0979**	**0.0000**	**95.3475**	**95.3475**	**0.0308**	**0.0000**	**96.1185**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.3000e-004	8.6000e-003	3.0000e-005	2.7700e-003	2.0000e-005	2.7800e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.4230	2.4230	6.0000e-005	0.0000	2.4245
Total	**1.1600e-003**	**8.3000e-004**	**8.6000e-003**	**3.0000e-005**	**2.7700e-003**	**2.0000e-005**	**2.7800e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4230**	**2.4230**	**6.0000e-005**	**0.0000**	**2.4245**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0779	0.8785	0.5593	1.0900e-003		0.0380	0.0380		0.0350	0.0350	0.0000	95.3474	95.3474	0.0308	0.0000	96.1183
Total	**0.0779**	**0.8785**	**0.5593**	**1.0900e-003**	**0.1518**	**0.0380**	**0.1898**	**0.0629**	**0.0350**	**0.0979**	**0.0000**	**95.3474**	**95.3474**	**0.0308**	**0.0000**	**96.1183**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.3000e-004	8.6000e-003	3.0000e-005	2.7700e-003	2.0000e-005	2.7800e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.4230	2.4230	6.0000e-005	0.0000	2.4245
Total	**1.1600e-003**	**8.3000e-004**	**8.6000e-003**	**3.0000e-005**	**2.7700e-003**	**2.0000e-005**	**2.7800e-003**	**7.4000e-004**	**2.0000e-005**	**7.5000e-004**	**0.0000**	**2.4230**	**2.4230**	**6.0000e-005**	**0.0000**	**2.4245**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1367	1.2375	1.0867	1.7400e-003		0.0721	0.0721		0.0678	0.0678	0.0000	149.3884	149.3884	0.0365	0.0000	150.2996

Total	**0.1367**	**1.2375**	**1.0867**	**1.7400e-003**		**0.0721**	**0.0721**		**0.0678**	**0.0678**	**0.0000**	**149.3884**	**149.3884**	**0.0365**	**0.0000**	**150.2996**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0439	1.3098	0.3293	3.0900e-003	0.0744	6.3900e-003	0.0808	0.0215	6.1100e-003	0.0276	0.0000	297.2174	297.2174	0.0153	0.0000	297.6007
Worker	0.0932	0.0667	0.6907	2.1500e-003	0.2222	1.5000e-003	0.2237	0.0591	1.3800e-003	0.0605	0.0000	194.6832	194.6832	4.7100e-003	0.0000	194.8010
Total	**0.1371**	**1.3765**	**1.0200**	**5.2400e-003**	**0.2967**	**7.8900e-003**	**0.3045**	**0.0807**	**7.4900e-003**	**0.0881**	**0.0000**	**491.9006**	**491.9006**	**0.0200**	**0.0000**	**492.4016**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1367	1.2375	1.0867	1.7400e-003		0.0721	0.0721		0.0678	0.0678	0.0000	149.3883	149.3883	0.0365	0.0000	150.2994
Total	**0.1367**	**1.2375**	**1.0867**	**1.7400e-003**		**0.0721**	**0.0721**		**0.0678**	**0.0678**	**0.0000**	**149.3883**	**149.3883**	**0.0365**	**0.0000**	**150.2994**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0439	1.3098	0.3293	3.0900e-003	0.0744	6.3900e-003	0.0808	0.0215	6.1100e-003	0.0276	0.0000	297.2174	297.2174	0.0153	0.0000	297.6007
Worker	0.0932	0.0667	0.6907	2.1500e-003	0.2222	1.5000e-003	0.2237	0.0591	1.3800e-003	0.0605	0.0000	194.6832	194.6832	4.7100e-003	0.0000	194.8010
Total	**0.1371**	**1.3765**	**1.0200**	**5.2400e-003**	**0.2967**	**7.8900e-003**	**0.3045**	**0.0807**	**7.4900e-003**	**0.0881**	**0.0000**	**491.9006**	**491.9006**	**0.0200**	**0.0000**	**492.4016**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2291	2.1006	1.9973	3.2400e-003		0.1155	0.1155		0.1086	0.1086	0.0000	279.1229	279.1229	0.0673	0.0000	280.8064
Total	**0.2291**	**2.1006**	**1.9973**	**3.2400e-003**		**0.1155**	**0.1155**		**0.1086**	**0.1086**	**0.0000**	**279.1229**	**279.1229**	**0.0673**	**0.0000**	**280.8064**

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0673	2.2152	0.5529	5.7200e-003	0.1391	4.8200e-003	0.1439	0.0402	4.6100e-003	0.0448	0.0000	550.0167	550.0167	0.0270	0.0000	550.6926
Worker	0.1612	0.1112	1.1784	3.8800e-003	0.4151	2.7200e-003	0.4179	0.1104	2.5000e-003	0.1129	0.0000	350.9486	350.9486	7.8700e-003	0.0000	351.1453
Total	**0.2286**	**2.3264**	**1.7313**	**9.6000e-003**	**0.5542**	**7.5400e-003**	**0.5618**	**0.1507**	**7.1100e-003**	**0.1578**	**0.0000**	**900.9653**	**900.9653**	**0.0349**	**0.0000**	**901.8380**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2291	2.1006	1.9973	3.2400e-003		0.1155	0.1155		0.1086	0.1086	0.0000	279.1226	279.1226	0.0673	0.0000	280.8061
Total	**0.2291**	**2.1006**	**1.9973**	**3.2400e-003**		**0.1155**	**0.1155**		**0.1086**	**0.1086**	**0.0000**	**279.1226**	**279.1226**	**0.0673**	**0.0000**	**280.8061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0673	2.2152	0.5529	5.7200e-003	0.1391	4.8200e-003	0.1439	0.0402	4.6100e-003	0.0448	0.0000	550.0167	550.0167	0.0270	0.0000	550.6926
Worker	0.1612	0.1112	1.1784	3.8800e-003	0.4151	2.7200e-003	0.4179	0.1104	2.5000e-003	0.1129	0.0000	350.9486	350.9486	7.8700e-003	0.0000	351.1453
Total	**0.2286**	**2.3264**	**1.7313**	**9.6000e-003**	**0.5542**	**7.5400e-003**	**0.5618**	**0.1507**	**7.1100e-003**	**0.1578**	**0.0000**	**900.9653**	**900.9653**	**0.0349**	**0.0000**	**901.8380**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0302**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.3600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0020	1.0020	2.0000e-005	0.0000	1.0026
Total	**4.6000e-004**	**3.2000e-004**	**3.3600e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0020**	**1.0020**	**2.0000e-005**	**0.0000**	**1.0026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	0.0176					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0302**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.2000e-004	3.3600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0020	1.0020	2.0000e-005	0.0000	1.0026
Total	**4.6000e-004**	**3.2000e-004**	**3.3600e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0020**	**1.0020**	**2.0000e-005**	**0.0000**	**1.0026**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6190					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.6211**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	1.6500e-003	0.0179	6.0000e-005	6.8700e-003	4.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	5.5985	5.5985	1.2000e-004	0.0000	5.6014
Total	**2.4900e-003**	**1.6500e-003**	**0.0179**	**6.0000e-005**	**6.8700e-003**	**4.0000e-005**	**6.9200e-003**	**1.8300e-003**	**4.0000e-005**	**1.8700e-003**	**0.0000**	**5.5985**	**5.5985**	**1.2000e-004**	**0.0000**	**5.6014**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6190					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.6211**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	1.6500e-003	0.0179	6.0000e-005	6.8700e-003	4.0000e-005	6.9200e-003	1.8300e-003	4.0000e-005	1.8700e-003	0.0000	5.5985	5.5985	1.2000e-004	0.0000	5.6014
Total	**2.4900e-003**	**1.6500e-003**	**0.0179**	**6.0000e-005**	**6.8700e-003**	**4.0000e-005**	**6.9200e-003**	**1.8300e-003**	**4.0000e-005**	**1.8700e-003**	**0.0000**	**5.5985**	**5.5985**	**1.2000e-004**	**0.0000**	**5.6014**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5663	3.8168	18.7881	0.0776	9.8386	0.0560	9.8946	2.6369	0.0520	2.6890	0.0000	7,073.4964	7,073.4964	0.1762	0.0000	7,077.9017
Unmitigated	1.5663	3.8168	18.7881	0.0776	9.8386	0.0560	9.8946	2.6369	0.0520	2.6890	0.0000	7,073.4964	7,073.4964	0.1762	0.0000	7,077.9017

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Discount Club	6,960.44	8,850.40	8850.40	20,933,198	20,933,198
Gasoline/Service Station	0.00	0.00	0.00		
Hotel	1,845.69	1,845.69	1845.69	5,191,105	5,191,105
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	149.10	174.45	174.45	436,217	436,217
Total	8,955.23	10,870.54	10,870.54	26,560,520	26,560,520

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
Discount Club	9.50	7.30	7.30	16.70	64.30	19.00	100	0	0
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Discount Club	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Gasoline/Service Station	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Hotel	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Other Non-Asphalt Surfaces	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Parking Lot	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Strip Mall	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	631.0985	631.0985	0.0663	0.0137	636.8439
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	631.0985	631.0985	0.0663	0.0137	636.8439
NaturalGas Mitigated	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1457	245.1457	4.7000e-003	4.4900e-003	246.6025
NaturalGas Unmitigated	0.0248	0.2252	0.1892	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	245.1457	245.1457	4.7000e-003	4.4900e-003	246.6025

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	245680	1.3200e-003	0.0120	0.0101	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1104	13.1104	2.5000e-004	2.4000e-004	13.1883
Gasoline/Service Station	57797	3.1000e-004	2.8300e-003	2.3800e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0843	3.0843	6.0000e-005	6.0000e-005	3.1026
Hotel	4.28208e+006	0.0231	0.2099	0.1763	1.2600e-003		0.0160	0.0160		0.0160	0.0160	0.0000	228.5081	228.5081	4.3800e-003	4.1900e-003	229.8660
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8300	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4429	0.4429	1.0000e-005	1.0000e-005	0.4456
Total		**0.0248**	**0.2252**	**0.1892**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**	**0.0000**	**245.1457**	**245.1457**	**4.7000e-003**	**4.5000e-003**	**246.6025**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	245680	1.3200e-003	0.0120	0.0101	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1104	13.1104	2.5000e-004	2.4000e-004	13.1883
Gasoline/Service Station	57797	3.1000e-004	2.8300e-003	2.3800e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0843	3.0843	6.0000e-005	6.0000e-005	3.1026
Hotel	4.28208e+006	0.0231	0.2099	0.1763	1.2600e-003		0.0160	0.0160		0.0160	0.0160	0.0000	228.5081	228.5081	4.3800e-003	4.1900e-003	229.8660
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	8300	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4429	0.4429	1.0000e-005	1.0000e-005	0.4456
Total		**0.0248**	**0.2252**	**0.1892**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**	**0.0000**	**245.1457**	**245.1457**	**4.7000e-003**	**4.5000e-003**	**246.6025**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	4e+006	500.8339	0.0526	0.0109	505.3934
Gasoline/Service Station	19482.2	2.4393	2.6000e-004	5.0000e-005	2.4615
Hotel	832920	104.2886	0.0110	2.2700e-003	105.2381
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	112167	14.0443	1.4800e-003	3.1000e-004	14.1721

Parking Lot	34412.4	4.3087	4.5000e-004	9.0000e-005	4.3480
Strip Mall	41400	5.1836	5.4000e-004	1.1000e-004	5.2308
Total		**631.0985**	**0.0663**	**0.0137**	**636.8439**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	4e+006	500.8339	0.0526	0.0109	505.3934
Gasoline/Service Station	19482.2	2.4393	2.6000e-004	5.0000e-005	2.4615
Hotel	832920	104.2886	0.0110	2.2700e-003	105.2381
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	112167	14.0443	1.4800e-003	3.1000e-004	14.1721
Parking Lot	34412.4	4.3087	4.5000e-004	9.0000e-005	4.3480
Strip Mall	41400	5.1836	5.4000e-004	1.1000e-004	5.2308
Total		**631.0985**	**0.0663**	**0.0137**	**636.8439**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6778	3.0000e-005	3.8600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0300e-003
Unmitigated	0.6778	3.0000e-005	3.8600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5155					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0300e-003
Total	**0.6778**	**3.0000e-005**	**3.8600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.5400e-003**	**7.5400e-003**	**2.0000e-005**	**0.0000**	**8.0300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1619					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5155					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Landscaping	3.5000e-004	3.0000e-005	3.8600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.5400e-003	7.5400e-003	2.0000e-005	0.0000	8.0300e-003
Total	**0.6778**	**3.0000e-005**	**3.8600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.5400e-003**	**7.5400e-003**	**2.0000e-005**	**0.0000**	**8.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.8968	0.3428	8.2400e-003	21.9223
Unmitigated	10.8968	0.3428	8.2400e-003	21.9223

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	4 / 0	3.9790	0.1306	3.1400e-003	8.1793
Gasoline/Service Station	0.265638 / 0.16281	0.3356	8.6800e-003	2.1000e-004	0.6152
Hotel	5.85972 / 0.65108	6.1143	0.1914	4.6000e-003	12.2701
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.370363 / 0.226996	0.4679	0.0121	2.9000e-004	0.8577
Total		**10.8968**	**0.3428**	**8.2400e-003**	**21.9223**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	4 / 0	3.9790	0.1306	3.1400e-003	8.1793
Gasoline/Service Station	0.265638 / 0.16281	0.3356	8.6800e-003	2.1000e-004	0.6152
Hotel	5.85972 / 0.65108	6.1143	0.1914	4.6000e-003	12.2701
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.370363 / 0.226996	0.4679	0.0121	2.9000e-004	0.8577
Total		**10.8968**	**0.3428**	**8.2400e-003**	**21.9223**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	158.1300	9.3452	0.0000	391.7603
Unmitigated	158.1300	9.3452	0.0000	391.7603

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**158.1300**	**9.3452**	**0.0000**	**391.7603**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**158.1300**	**9.3452**	**0.0000**	**391.7603**

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

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CalEEMod Output – Full-Buildout 1 (2031)

Johnson Drive- Full Buildout Operations

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	3.40	Acre	3.40	148,104.00	0
Other Non-Asphalt Surfaces	1.22	Acre	1.22	53,143.20	0
Other Non-Asphalt Surfaces	2.80	Acre	2.80	121,968.00	0
Parking Lot	10.30	Acre	10.30	448,668.00	0
Parking Lot	3.16	Acre	3.16	137,649.60	0
Parking Lot	10.50	Acre	10.50	457,380.00	0
Hotel	231.00	Room	0.77	132,000.00	0
Discount Club	148.00	1000sqft	3.40	148,000.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0
Strip Mall	5.00	1000sqft	0.11	5,000.00	0
Strip Mall	184.04	1000sqft	4.22	184,037.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2031
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	276.04	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 emission factor modified to reflect PG&E's 2030 RPS

Land Use - Project Specific Information

Consumer Products - Consumer product emissions only associated with hotel land use

Area Coating - Coating only applied to parking lot asphalt surfaces

Energy Use - CalEEmod default 2016 T24 energy rates adjusted to represent 2019 T24 energy rates.

Fleet Mix - Light duty vehicle categories consistent with HRA

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	82015	60534
tblConsumerProducts	ROG_EF	2.14E-05	6E-06
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	5.25	11.98
tblEnergyUse	LightingElect	3.08	2.16
tblEnergyUse	LightingElect	2.35	1.65
tblEnergyUse	LightingElect	0.35	0.25
tblEnergyUse	LightingElect	5.25	3.67
tblEnergyUse	NT24E	2.68	8.75
tblEnergyUse	T24E	2.76	6.30
tblEnergyUse	T24E	1.48	1.04
tblEnergyUse	T24E	2.05	1.44
tblEnergyUse	T24E	2.76	1.93
tblEnergyUse	T24NG	2.37	1.66
tblEnergyUse	T24NG	19.71	13.80
tblEnergyUse	T24NG	39.56	27.69
tblEnergyUse	T24NG	2.37	1.66
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00

tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDA	0.59	0.60
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LDT2	0.19	0.20
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD1	0.01	0.01
tblFleetMix	LHD2	5.2750e-003	5.4306e-003
tblFleetMix	LHD2	5.2750e-003	5.4306e-003
tblFleetMix	LHD2	5.2750e-003	5.4306e-003
tblFleetMix	LHD2	5.2750e-003	5.4306e-003

tblFleetMix	LHD2	5.2750e-003	5.4306e-003
tblFleetMix	LHD2	5.2750e-003	5.4306e-003
tblFleetMix	MCY	5.6080e-003	5.7734e-003
tblFleetMix	MCY	5.6080e-003	5.7734e-003
tblFleetMix	MCY	5.6080e-003	5.7734e-003
tblFleetMix	MCY	5.6080e-003	5.7734e-003
tblFleetMix	MCY	5.6080e-003	5.7734e-003
tblFleetMix	MCY	5.6080e-003	5.7734e-003
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	6.7200e-004	6.9182e-004
tblFleetMix	MH	6.7200e-004	6.9182e-004
tblFleetMix	MH	6.7200e-004	6.9182e-004
tblFleetMix	MH	6.7200e-004	6.9182e-004
tblFleetMix	MH	6.7200e-004	6.9182e-004
tblFleetMix	MH	6.7200e-004	6.9182e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.7080e-003	2.7879e-003
tblFleetMix	OBUS	2.7080e-003	2.7879e-003
tblFleetMix	OBUS	2.7080e-003	2.7879e-003
tblFleetMix	OBUS	2.7080e-003	2.7879e-003

tblFleetMix	OBUS	2.7080e-003	2.7879e-003
tblFleetMix	OBUS	2.7080e-003	2.7879e-003
tblFleetMix	SBUS	9.2400e-004	9.5126e-004
tblFleetMix	SBUS	9.2400e-004	9.5126e-004
tblFleetMix	SBUS	9.2400e-004	9.5126e-004
tblFleetMix	SBUS	9.2400e-004	9.5126e-004
tblFleetMix	SBUS	9.2400e-004	9.5126e-004
tblFleetMix	SBUS	9.2400e-004	9.5126e-004
tblFleetMix	UBUS	1.7610e-003	1.8130e-003
tblFleetMix	UBUS	1.7610e-003	1.8130e-003
tblFleetMix	UBUS	1.7610e-003	1.8130e-003
tblFleetMix	UBUS	1.7610e-003	1.8130e-003
tblFleetMix	UBUS	1.7610e-003	1.8130e-003
tblFleetMix	UBUS	1.7610e-003	1.8130e-003
tblLandUse	LandUseSquareFeet	335,412.00	132,000.00
tblLandUse	LandUseSquareFeet	184,040.00	184,037.00
tblLandUse	LotAcreage	7.70	0.77
tblProjectCharacteristics	CO2IntensityFactor	641.35	276.04
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	27.00	0.00
tblVehicleTrips	DV_TP	38.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	PR_TP	14.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00

tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	53.75	59.80
tblVehicleTrips	ST_TR	168.56	0.00
tblVehicleTrips	ST_TR	8.19	7.99
tblVehicleTrips	ST_TR	42.04	34.94
tblVehicleTrips	SU_TR	33.67	59.80
tblVehicleTrips	SU_TR	168.56	0.00
tblVehicleTrips	SU_TR	5.95	7.99
tblVehicleTrips	SU_TR	20.43	34.94
tblVehicleTrips	WD_TR	41.80	47.03
tblVehicleTrips	WD_TR	168.56	0.00
tblVehicleTrips	WD_TR	8.17	7.99
tblVehicleTrips	WD_TR	44.32	29.85
tblWater	IndoorWaterUseRate	10,962,733.18	4,000,000.00
tblWater	OutdoorWaterUseRate	6,719,094.53	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4272	4.4375	2.9515	7.2000e-003	0.7595	0.1819	0.9413	0.3281	0.1683	0.4964	0.0000	647.5809	647.5809	0.1279	0.0000	650.7780
2021	0.6683	6.5817	5.3472	0.0212	1.0186	0.1390	1.1576	0.2770	0.1307	0.4077	0.0000	1,964.3372	1,964.3372	0.1374	0.0000	1,967.7730
2022	0.6121	6.0829	5.0639	0.0208	1.0147	0.1177	1.1324	0.2759	0.1108	0.3867	0.0000	1,923.4794	1,923.4794	0.1327	0.0000	1,926.7977

2023	1.6956	3.7746	3.7823	0.0148	0.7204	0.0837	0.8040	0.1958	0.0785	0.2742	0.0000	1,368.1127	1,368.1127	0.1040	0.0000	1,370.7135
2024	1.5059	0.0217	0.0661	1.9000e-004	0.0175	1.0200e-003	0.0186	4.6700e-003	1.0100e-003	5.6800e-003	0.0000	17.0248	17.0248	4.6000e-004	0.0000	17.0362
Maximum	**1.6956**	**6.5817**	**5.3472**	**0.0212**	**1.0186**	**0.1819**	**1.1576**	**0.3281**	**0.1683**	**0.4964**	**0.0000**	**1,964.3372**	**1,964.3372**	**0.1374**	**0.0000**	**1,967.7730**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4272	4.4375	2.9515	7.2000e-003	0.7595	0.1819	0.9413	0.3281	0.1683	0.4964	0.0000	647.5805	647.5805	0.1279	0.0000	650.7775
2021	0.6683	6.5817	5.3472	0.0212	1.0186	0.1390	1.1576	0.2770	0.1307	0.4077	0.0000	1,964.3368	1,964.3368	0.1374	0.0000	1,967.7727
2022	0.6121	6.0829	5.0639	0.0208	1.0147	0.1177	1.1324	0.2759	0.1108	0.3867	0.0000	1,923.4790	1,923.4790	0.1327	0.0000	1,926.7973
2023	1.6956	3.7746	3.7823	0.0148	0.7204	0.0837	0.8040	0.1958	0.0785	0.2742	0.0000	1,368.1123	1,368.1123	0.1040	0.0000	1,370.7132
2024	1.5059	0.0217	0.0661	1.9000e-004	0.0175	1.0200e-003	0.0186	4.6700e-003	1.0100e-003	5.6800e-003	0.0000	17.0248	17.0248	4.6000e-004	0.0000	17.0362
Maximum	**1.6956**	**6.5817**	**5.3472**	**0.0212**	**1.0186**	**0.1819**	**1.1576**	**0.3281**	**0.1683**	**0.4964**	**0.0000**	**1,964.3368**	**1,964.3368**	**0.1374**	**0.0000**	**1,967.7727**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-6-2020**	**7-5-2020**	1.2715	1.2715
2	**7-6-2020**	**10-5-2020**	1.7439	1.7439
3	**10-6-2020**	**1-5-2021**	1.9403	1.9403
4	**1-6-2021**	**4-5-2021**	1.7961	1.7961
5	**4-6-2021**	**7-5-2021**	1.7918	1.7918
6	**7-6-2021**	**10-5-2021**	1.8129	1.8129

7	**10-6-2021**	**1-5-2022**	1.8301	1.8301
8	**1-6-2022**	**4-5-2022**	1.6647	1.6647
9	**4-6-2022**	**7-5-2022**	1.6616	1.6616
10	**7-6-2022**	**10-5-2022**	1.6811	1.6811
11	**10-6-2022**	**1-5-2023**	1.6874	1.6874
12	**1-6-2023**	**4-5-2023**	1.3851	1.3851
13	**4-6-2023**	**7-5-2023**	1.3836	1.3836
14	**7-6-2023**	**10-5-2023**	1.1082	1.1082
15	**10-6-2023**	**1-5-2024**	1.7526	1.7526
16	**1-6-2024**	**4-5-2024**	1.2738	1.2738
		Highest	1.9403	1.9403

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7843	5.0000e-005	5.6600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Energy	0.0264	0.2402	0.2017	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	1,097.7227	1,097.7227	0.0929	0.0230	1,106.8896
Mobile	2.4079	5.8836	28.9163	0.1221	15.7927	0.0842	15.8769	4.2327	0.0782	4.3109	0.0000	11,134.4672	11,134.4672	0.2734	0.0000	11,141.3010
Waste						0.0000	0.0000		0.0000	0.0000	197.3559	0.0000	197.3559	11.6634	0.0000	488.9410
Water						0.0000	0.0000		0.0000	0.0000	7.6547	20.4647	28.1194	0.7884	0.0190	53.4931
Total	**3.2186**	**6.1238**	**29.1237**	**0.1235**	**15.7927**	**0.1025**	**15.8952**	**4.2327**	**0.0965**	**4.3291**	**205.0106**	**12,252.6657**	**12,457.6763**	**12.8180**	**0.0420**	**12,790.6365**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7843	5.0000e-005	5.6600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Energy	0.0264	0.2402	0.2017	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	1,097.7227	1,097.7227	0.0929	0.0230	1,106.8896
Mobile	2.4079	5.8836	28.9163	0.1221	15.7927	0.0842	15.8769	4.2327	0.0782	4.3109	0.0000	11,134.4672	11,134.4672	0.2734	0.0000	11,141.3010
Waste						0.0000	0.0000		0.0000	0.0000	197.3559	0.0000	197.3559	11.6634	0.0000	488.9410
Water						0.0000	0.0000		0.0000	0.0000	7.6547	20.4647	28.1194	0.7884	0.0190	53.4931
Total	**3.2186**	**6.1238**	**29.1237**	**0.1235**	**15.7927**	**0.1025**	**15.8952**	**4.2327**	**0.0965**	**4.3291**	**205.0106**	**12,252.6657**	**12,457.6763**	**12.8180**	**0.0420**	**12,790.6365**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/6/2020	6/12/2020	5	50	
2	Site Preparation	Site Preparation	6/13/2020	7/24/2020	5	30	
3	Grading	Grading	7/25/2020	11/6/2020	5	75	
4	Building Construction	Building Construction	11/7/2020	9/8/2023	5	740	
5	Paving	Paving	9/9/2023	11/24/2023	5	55	
6	Architectural Coating	Architectural Coating	11/25/2023	2/9/2024	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 31.38

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 707,791; Non-Residential Outdoor: 235,930; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	738.00	301.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	148.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0828	0.8300	0.5438	9.7000e-004		0.0415	0.0415		0.0386	0.0386	0.0000	84.9965	84.9965	0.0240	0.0000	85.5964
Total	**0.0828**	**0.8300**	**0.5438**	**9.7000e-004**		**0.0415**	**0.0415**		**0.0386**	**0.0386**	**0.0000**	**84.9965**	**84.9965**	**0.0240**	**0.0000**	**85.5964**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	8.9000e-004	9.2100e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.5961	2.5961	6.0000e-005	0.0000	2.5976

Total	**1.2400e-003**	**8.9000e-004**	**9.2100e-003**	**3.0000e-005**	**2.9600e-003**	**2.0000e-005**	**2.9800e-003**	**7.9000e-004**	**2.0000e-005**	**8.1000e-004**	**0.0000**	**2.5961**	**2.5961**	**6.0000e-005**	**0.0000**	**2.5976**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0828	0.8300	0.5438	9.7000e-004		0.0415	0.0415		0.0386	0.0386	0.0000	84.9964	84.9964	0.0240	0.0000	85.5963
Total	**0.0828**	**0.8300**	**0.5438**	**9.7000e-004**		**0.0415**	**0.0415**		**0.0386**	**0.0386**	**0.0000**	**84.9964**	**84.9964**	**0.0240**	**0.0000**	**85.5963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	8.9000e-004	9.2100e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.5961	2.5961	6.0000e-005	0.0000	2.5976
Total	**1.2400e-003**	**8.9000e-004**	**9.2100e-003**	**3.0000e-005**	**2.9600e-003**	**2.0000e-005**	**2.9800e-003**	**7.9000e-004**	**2.0000e-005**	**8.1000e-004**	**0.0000**	**2.5961**	**2.5961**	**6.0000e-005**	**0.0000**	**2.5976**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0612	0.6363	0.3227	5.7000e-004		0.0330	0.0330		0.0303	0.0303	0.0000	50.1460	50.1460	0.0162	0.0000	50.5515
Total	**0.0612**	**0.6363**	**0.3227**	**5.7000e-004**	**0.2710**	**0.0330**	**0.3040**	**0.1490**	**0.0303**	**0.1793**	**0.0000**	**50.1460**	**50.1460**	**0.0162**	**0.0000**	**50.5515**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-004	6.4000e-004	6.6300e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.8692	1.8692	5.0000e-005	0.0000	1.8703
Total	**8.9000e-004**	**6.4000e-004**	**6.6300e-003**	**2.0000e-005**	**2.1300e-003**	**1.0000e-005**	**2.1500e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.8692**	**1.8692**	**5.0000e-005**	**0.0000**	**1.8703**

Mitigated Construction On-Site

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

Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0612	0.6363	0.3227	5.7000e-004		0.0330	0.0330		0.0303	0.0303	0.0000	50.1460	50.1460	0.0162	0.0000	50.5514
Total	**0.0612**	**0.6363**	**0.3227**	**5.7000e-004**	**0.2710**	**0.0330**	**0.3040**	**0.1490**	**0.0303**	**0.1793**	**0.0000**	**50.1460**	**50.1460**	**0.0162**	**0.0000**	**50.5514**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-004	6.4000e-004	6.6300e-003	2.0000e-005	2.1300e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.8692	1.8692	5.0000e-005	0.0000	1.8703
Total	**8.9000e-004**	**6.4000e-004**	**6.6300e-003**	**2.0000e-005**	**2.1300e-003**	**1.0000e-005**	**2.1500e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.8692**	**1.8692**	**5.0000e-005**	**0.0000**	**1.8703**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1669	1.8824	1.1984	2.3300e-003		0.0815	0.0815		0.0750	0.0750	0.0000	204.3161	204.3161	0.0661	0.0000	205.9681
Total	**0.1669**	**1.8824**	**1.1984**	**2.3300e-003**	**0.3253**	**0.0815**	**0.4068**	**0.1349**	**0.0750**	**0.2099**	**0.0000**	**204.3161**	**204.3161**	**0.0661**	**0.0000**	**205.9681**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	1.7800e-003	0.0184	6.0000e-005	5.9300e-003	4.0000e-005	5.9700e-003	1.5800e-003	4.0000e-005	1.6100e-003	0.0000	5.1921	5.1921	1.3000e-004	0.0000	5.1953
Total	**2.4900e-003**	**1.7800e-003**	**0.0184**	**6.0000e-005**	**5.9300e-003**	**4.0000e-005**	**5.9700e-003**	**1.5800e-003**	**4.0000e-005**	**1.6100e-003**	**0.0000**	**5.1921**	**5.1921**	**1.3000e-004**	**0.0000**	**5.1953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1669	1.8824	1.1984	2.3300e-003		0.0815	0.0815		0.0750	0.0750	0.0000	204.3159	204.3159	0.0661	0.0000	205.9679
Total	**0.1669**	**1.8824**	**1.1984**	**2.3300e-003**	**0.3253**	**0.0815**	**0.4068**	**0.1349**	**0.0750**	**0.2099**	**0.0000**	**204.3159**	**204.3159**	**0.0661**	**0.0000**	**205.9679**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	1.7800e-003	0.0184	6.0000e-005	5.9300e-003	4.0000e-005	5.9700e-003	1.5800e-003	4.0000e-005	1.6100e-003	0.0000	5.1921	5.1921	1.3000e-004	0.0000	5.1953
Total	**2.4900e-003**	**1.7800e-003**	**0.0184**	**6.0000e-005**	**5.9300e-003**	**4.0000e-005**	**5.9700e-003**	**1.5800e-003**	**4.0000e-005**	**1.6100e-003**	**0.0000**	**5.1921**	**5.1921**	**1.3000e-004**	**0.0000**	**5.1953**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0413	0.3741	0.3286	5.2000e-004		0.0218	0.0218		0.0205	0.0205	0.0000	45.1640	45.1640	0.0110	0.0000	45.4394
Total	**0.0413**	**0.3741**	**0.3286**	**5.2000e-004**		**0.0218**	**0.0218**		**0.0205**	**0.0205**	**0.0000**	**45.1640**	**45.1640**	**0.0110**	**0.0000**	**45.4394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0227	0.6772	0.1703	1.6000e-003	0.0385	3.3000e-003	0.0418	0.0111	3.1600e-003	0.0143	0.0000	153.6749	153.6749	7.9300e-003	0.0000	153.8731
Worker	0.0477	0.0341	0.3535	1.1000e-003	0.1137	7.7000e-004	0.1145	0.0303	7.1000e-004	0.0310	0.0000	99.6261	99.6261	2.4100e-003	0.0000	99.6864

Total	**0.0704**	**0.7113**	**0.5237**	**2.7000e-003**	**0.1522**	**4.0700e-003**	**0.1563**	**0.0414**	**3.8700e-003**	**0.0453**	**0.0000**	**253.3010**	**253.3010**	**0.0103**	**0.0000**	**253.5595**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0413	0.3741	0.3286	5.2000e-004		0.0218	0.0218		0.0205	0.0205	0.0000	45.1639	45.1639	0.0110	0.0000	45.4394
Total	**0.0413**	**0.3741**	**0.3286**	**5.2000e-004**		**0.0218**	**0.0218**		**0.0205**	**0.0205**	**0.0000**	**45.1639**	**45.1639**	**0.0110**	**0.0000**	**45.4394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0227	0.6772	0.1703	1.6000e-003	0.0385	3.3000e-003	0.0418	0.0111	3.1600e-003	0.0143	0.0000	153.6749	153.6749	7.9300e-003	0.0000	153.8731
Worker	0.0477	0.0341	0.3535	1.1000e-003	0.1137	7.7000e-004	0.1145	0.0303	7.1000e-004	0.0310	0.0000	99.6261	99.6261	2.4100e-003	0.0000	99.6864
Total	**0.0704**	**0.7113**	**0.5237**	**2.7000e-003**	**0.1522**	**4.0700e-003**	**0.1563**	**0.0414**	**3.8700e-003**	**0.0453**	**0.0000**	**253.3010**	**253.3010**	**0.0103**	**0.0000**	**253.5595**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2867**	**302.2867**	**0.0729**	**0.0000**	**304.1099**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1247	4.1029	1.0241	0.0106	0.2576	8.9200e-003	0.2665	0.0745	8.5300e-003	0.0830	0.0000	1,018.7160	1,018.7160	0.0501	0.0000	1,019.9680
Worker	0.2956	0.2039	2.1601	7.1100e-003	0.7610	4.9800e-003	0.7660	0.2025	4.5900e-003	0.2070	0.0000	643.3345	643.3345	0.0144	0.0000	643.6952
Total	**0.4203**	**4.3068**	**3.1842**	**0.0177**	**1.0186**	**0.0139**	**1.0325**	**0.2770**	**0.0131**	**0.2901**	**0.0000**	**1,662.0505**	**1,662.0505**	**0.0645**	**0.0000**	**1,663.6632**

Mitigated Construction On-Site

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

Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	**0.2481**	**2.2749**	**2.1631**	**3.5100e-003**		**0.1251**	**0.1251**		**0.1176**	**0.1176**	**0.0000**	**302.2863**	**302.2863**	**0.0729**	**0.0000**	**304.1095**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1247	4.1029	1.0241	0.0106	0.2576	8.9200e-003	0.2665	0.0745	8.5300e-003	0.0830	0.0000	1,018.7160	1,018.7160	0.0501	0.0000	1,019.9680
Worker	0.2956	0.2039	2.1601	7.1100e-003	0.7610	4.9800e-003	0.7660	0.2025	4.5900e-003	0.2070	0.0000	643.3345	643.3345	0.0144	0.0000	643.6952
Total	**0.4203**	**4.3068**	**3.1842**	**0.0177**	**1.0186**	**0.0139**	**1.0325**	**0.2770**	**0.0131**	**0.2901**	**0.0000**	**1,662.0505**	**1,662.0505**	**0.0645**	**0.0000**	**1,663.6632**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1159	3.8707	0.9592	0.0105	0.2566	7.7100e-003	0.2643	0.0742	7.3700e-003	0.0816	0.0000	1,004.8622	1,004.8622	0.0477	0.0000	1,006.0541
Worker	0.2745	0.1821	1.9775	6.8200e-003	0.7581	4.8400e-003	0.7629	0.2017	4.4600e-003	0.2061	0.0000	617.3744	617.3744	0.0129	0.0000	617.6966
Total	**0.3903**	**4.0529**	**2.9367**	**0.0173**	**1.0147**	**0.0126**	**1.0273**	**0.2759**	**0.0118**	**0.2877**	**0.0000**	**1,622.2366**	**1,622.2366**	**0.0606**	**0.0000**	**1,623.7507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1159	3.8707	0.9592	0.0105	0.2566	7.7100e-003	0.2643	0.0742	7.3700e-003	0.0816	0.0000	1,004.8622	1,004.8622	0.0477	0.0000	1,006.0541
Worker	0.2745	0.1821	1.9775	6.8200e-003	0.7581	4.8400e-003	0.7629	0.2017	4.4600e-003	0.2061	0.0000	617.3744	617.3744	0.0129	0.0000	617.6966
Total	**0.3903**	**4.0529**	**2.9367**	**0.0173**	**1.0147**	**0.0126**	**1.0273**	**0.2759**	**0.0118**	**0.2877**	**0.0000**	**1,622.2366**	**1,622.2366**	**0.0606**	**0.0000**	**1,623.7507**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1416	1.2946	1.4620	2.4300e-003		0.0630	0.0630		0.0593	0.0593	0.0000	208.6243	208.6243	0.0496	0.0000	209.8650
Total	**0.1416**	**1.2946**	**1.4620**	**2.4300e-003**		**0.0630**	**0.0630**		**0.0593**	**0.0593**	**0.0000**	**208.6243**	**208.6243**	**0.0496**	**0.0000**	**209.8650**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0602	2.0661	0.5944	7.0200e-003	0.1777	2.3800e-003	0.1800	0.0514	2.2700e-003	0.0537	0.0000	676.1771	676.1771	0.0281	0.0000	676.8804
Worker	0.1777	0.1134	1.2593	4.5400e-003	0.5248	3.2800e-003	0.5281	0.1396	3.0200e-003	0.1427	0.0000	411.0442	411.0442	8.0000e-003	0.0000	411.2442

Total	**0.2379**	**2.1795**	**1.8538**	**0.0116**	**0.7025**	**5.6600e-003**	**0.7082**	**0.1910**	**5.2900e-003**	**0.1963**	**0.0000**	**1,087.2213**	**1,087.2213**	**0.0361**	**0.0000**	**1,088.1246**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1416	1.2946	1.4620	2.4300e-003		0.0630	0.0630		0.0593	0.0593	0.0000	208.6240	208.6240	0.0496	0.0000	209.8647
Total	**0.1416**	**1.2946**	**1.4620**	**2.4300e-003**		**0.0630**	**0.0630**		**0.0593**	**0.0593**	**0.0000**	**208.6240**	**208.6240**	**0.0496**	**0.0000**	**209.8647**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0602	2.0661	0.5944	7.0200e-003	0.1777	2.3800e-003	0.1800	0.0514	2.2700e-003	0.0537	0.0000	676.1771	676.1771	0.0281	0.0000	676.8804
Worker	0.1777	0.1134	1.2593	4.5400e-003	0.5248	3.2800e-003	0.5281	0.1396	3.0200e-003	0.1427	0.0000	411.0442	411.0442	8.0000e-003	0.0000	411.2442
Total	**0.2379**	**2.1795**	**1.8538**	**0.0116**	**0.7025**	**5.6600e-003**	**0.7082**	**0.1910**	**5.2900e-003**	**0.1963**	**0.0000**	**1,087.2213**	**1,087.2213**	**0.0361**	**0.0000**	**1,088.1246**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0284	0.2803	0.4011	6.3000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	55.0739	55.0739	0.0178	0.0000	55.5192
Paving	0.0314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0598**	**0.2803**	**0.4011**	**6.3000e-004**		**0.0140**	**0.0140**		**0.0129**	**0.0129**	**0.0000**	**55.0739**	**55.0739**	**0.0178**	**0.0000**	**55.5192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	7.0000e-004	7.8200e-003	3.0000e-005	3.2600e-003	2.0000e-005	3.2800e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.5528	2.5528	5.0000e-005	0.0000	2.5540
Total	**1.1000e-003**	**7.0000e-004**	**7.8200e-003**	**3.0000e-005**	**3.2600e-003**	**2.0000e-005**	**3.2800e-003**	**8.7000e-004**	**2.0000e-005**	**8.9000e-004**	**0.0000**	**2.5528**	**2.5528**	**5.0000e-005**	**0.0000**	**2.5540**

Mitigated Construction On-Site

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

Off-Road	0.0284	0.2803	0.4011	6.3000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	55.0738	55.0738	0.0178	0.0000	55.5191
Paving	0.0314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0598**	**0.2803**	**0.4011**	**6.3000e-004**		**0.0140**	**0.0140**		**0.0129**	**0.0129**	**0.0000**	**55.0738**	**55.0738**	**0.0178**	**0.0000**	**55.5191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	7.0000e-004	7.8200e-003	3.0000e-005	3.2600e-003	2.0000e-005	3.2800e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.5528	2.5528	5.0000e-005	0.0000	2.5540
Total	**1.1000e-003**	**7.0000e-004**	**7.8200e-003**	**3.0000e-005**	**3.2600e-003**	**2.0000e-005**	**3.2800e-003**	**8.7000e-004**	**2.0000e-005**	**8.9000e-004**	**0.0000**	**2.5528**	**2.5528**	**5.0000e-005**	**0.0000**	**2.5540**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4000e-003	0.0163	0.0226	4.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	3.1916	3.1916	1.9000e-004	0.0000	3.1963
Total	**1.2504**	**0.0163**	**0.0226**	**4.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**	**0.0000**	**3.1916**	**3.1916**	**1.9000e-004**	**0.0000**	**3.1963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9500e-003	3.1600e-003	0.0351	1.3000e-004	0.0146	9.0000e-005	0.0147	3.8900e-003	8.0000e-005	3.9700e-003	0.0000	11.4488	11.4488	2.2000e-004	0.0000	11.4544
Total	**4.9500e-003**	**3.1600e-003**	**0.0351**	**1.3000e-004**	**0.0146**	**9.0000e-005**	**0.0147**	**3.8900e-003**	**8.0000e-005**	**3.9700e-003**	**0.0000**	**11.4488**	**11.4488**	**2.2000e-004**	**0.0000**	**11.4544**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4000e-003	0.0163	0.0226	4.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	3.1916	3.1916	1.9000e-004	0.0000	3.1963
Total	**1.2504**	**0.0163**	**0.0226**	**4.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**	**0.0000**	**3.1916**	**3.1916**	**1.9000e-004**	**0.0000**	**3.1963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9500e-003	3.1600e-003	0.0351	1.3000e-004	0.0146	9.0000e-005	0.0147	3.8900e-003	8.0000e-005	3.9700e-003	0.0000	11.4488	11.4488	2.2000e-004	0.0000	11.4544
Total	**4.9500e-003**	**3.1600e-003**	**0.0351**	**1.3000e-004**	**0.0146**	**9.0000e-005**	**0.0147**	**3.8900e-003**	**8.0000e-005**	**3.9700e-003**	**0.0000**	**11.4488**	**11.4488**	**2.2000e-004**	**0.0000**	**11.4544**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7100e-003	0.0183	0.0272	4.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.8299	3.8299	2.2000e-004	0.0000	3.8353
Total	**1.5003**	**0.0183**	**0.0272**	**4.0000e-005**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**3.8299**	**3.8299**	**2.2000e-004**	**0.0000**	**3.8353**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5800e-003	3.4200e-003	0.0390	1.5000e-004	0.0175	1.1000e-004	0.0177	4.6700e-003	1.0000e-004	4.7700e-003	0.0000	13.1949	13.1949	2.4000e-004	0.0000	13.2009

Total	**5.5800e-003**	**3.4200e-003**	**0.0390**	**1.5000e-004**	**0.0175**	**1.1000e-004**	**0.0177**	**4.6700e-003**	**1.0000e-004**	**4.7700e-003**	**0.0000**	**13.1949**	**13.1949**	**2.4000e-004**	**0.0000**	**13.2009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7100e-003	0.0183	0.0272	4.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.8299	3.8299	2.2000e-004	0.0000	3.8353
Total	**1.5003**	**0.0183**	**0.0272**	**4.0000e-005**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**3.8299**	**3.8299**	**2.2000e-004**	**0.0000**	**3.8353**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5800e-003	3.4200e-003	0.0390	1.5000e-004	0.0175	1.1000e-004	0.0177	4.6700e-003	1.0000e-004	4.7700e-003	0.0000	13.1949	13.1949	2.4000e-004	0.0000	13.2009
Total	**5.5800e-003**	**3.4200e-003**	**0.0390**	**1.5000e-004**	**0.0175**	**1.1000e-004**	**0.0177**	**4.6700e-003**	**1.0000e-004**	**4.7700e-003**	**0.0000**	**13.1949**	**13.1949**	**2.4000e-004**	**0.0000**	**13.2009**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4079	5.8836	28.9163	0.1221	15.7927	0.0842	15.8769	4.2327	0.0782	4.3109	0.0000	11,134.4672	11,134.4672	0.2734	0.0000	11,141.3010
Unmitigated	2.4079	5.8836	28.9163	0.1221	15.7927	0.0842	15.8769	4.2327	0.0782	4.3109	0.0000	11,134.4672	11,134.4672	0.2734	0.0000	11,141.3010

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Discount Club	6,960.44	8,850.40	8850.40	20,933,198	20,933,198
Gasoline/Service Station	0.00	0.00	0.00		
Hotel	1,845.69	1,845.69	1845.69	5,191,105	5,191,105
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	149.25	174.70	174.70	436,716	436,716
Strip Mall	5,493.59	6,430.36	6430.36	16,074,627	16,074,627
Total	14,448.97	17,301.15	17,301.15	42,635,645	42,635,645

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
Discount Club	9.50	7.30	7.30	16.70	64.30	19.00	100	0	0
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	100	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	100	0	0

Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Discount Club	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Gasoline/Service Station	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Hotel	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Other Non-Asphalt Surfaces	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Parking Lot	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692
Strip Mall	0.603495	0.037422	0.199183	0.109359	0.012926	0.005431	0.020167	0.000000	0.002788	0.001813	0.005773	0.000951	0.000692

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	836.2743	836.2743	0.0879	0.0182	843.8875
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	836.2743	836.2743	0.0879	0.0182	843.8875

NaturalGas Mitigated	0.0264	0.2402	0.2017	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	261.4484	261.4484	5.0100e-003	4.7900e-003	263.0021
NaturalGas Unmitigated	0.0264	0.2402	0.2017	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	261.4484	261.4484	5.0100e-003	4.7900e-003	263.0021

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	245680	1.3200e-003	0.0120	0.0101	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1104	13.1104	2.5000e-004	2.4000e-004	13.1883
Gasoline/Service Station	57797	3.1000e-004	2.8300e-003	2.3800e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0843	3.0843	6.0000e-005	6.0000e-005	3.1026
Hotel	4.28208e+006	0.0231	0.2099	0.1763	1.2600e-003		0.0160	0.0160		0.0160	0.0160	0.0000	228.5081	228.5081	4.3800e-003	4.1900e-003	229.8660
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	305501	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.3027	16.3027	3.1000e-004	3.0000e-004	16.3996
Strip Mall	8300	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4429	0.4429	1.0000e-005	1.0000e-005	0.4456
Total		**0.0264**	**0.2402**	**0.2017**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**261.4484**	**261.4484**	**5.0100e-003**	**4.8000e-003**	**263.0021**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Discount Club	245680	1.3200e-003	0.0120	0.0101	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1104	13.1104	2.5000e-004	2.4000e-004	13.1883

Gasoline/Service Station	57797	3.1000e-004	2.8300e-003	2.3800e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0843	3.0843	6.0000e-005	6.0000e-005	3.1026
Hotel	4.28208e+006	0.0231	0.2099	0.1763	1.2600e-003		0.0160	0.0160		0.0160	0.0160	0.0000	228.5081	228.5081	4.3800e-003	4.1900e-003	229.8660
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	305501	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.3027	16.3027	3.1000e-004	3.0000e-004	16.3996
Strip Mall	8300	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4429	0.4429	1.0000e-005	1.0000e-005	0.4456
Total		**0.0264**	**0.2402**	**0.2017**	**1.4400e-003**		**0.0183**	**0.0183**		**0.0183**	**0.0183**	**0.0000**	**261.4484**	**261.4484**	**5.0100e-003**	**4.8000e-003**	**263.0021**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	4.00044e+006	500.8936	0.0526	0.0109	505.4537
Gasoline/Service Station	19482.2	2.4394	2.6000e-004	5.0000e-005	2.4616
Hotel	832920	104.2896	0.0110	2.2700e-003	105.2390
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	112167	14.0444	1.4800e-003	3.1000e-004	14.1723
Parking Lot	114345	14.3171	1.5000e-003	3.1000e-004	14.4474
Parking Lot	34412.4	4.3088	4.5000e-004	9.0000e-005	4.3480
Strip Mall	1.52383e+006	190.7978	0.0200	4.1500e-003	192.5347
Strip Mall	41400	5.1837	5.4000e-004	1.1000e-004	5.2309
Total		**836.2743**	**0.0879**	**0.0182**	**843.8875**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Discount Club	4.00044e+006	500.8936	0.0526	0.0109	505.4537
Gasoline/Service Station	19482.2	2.4394	2.6000e-004	5.0000e-005	2.4616
Hotel	832920	104.2896	0.0110	2.2700e-003	105.2390
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	112167	14.0444	1.4800e-003	3.1000e-004	14.1723
Parking Lot	114345	14.3171	1.5000e-003	3.1000e-004	14.4474
Parking Lot	34412.4	4.3088	4.5000e-004	9.0000e-005	4.3480
Strip Mall	1.52383e+006	190.7978	0.0200	4.1500e-003	192.5347
Strip Mall	41400	5.1837	5.4000e-004	1.1000e-004	5.2309
Total		**836.2743**	**0.0879**	**0.0182**	**843.8875**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	0.7843	5.0000e-005	5.6600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Unmitigated	0.7843	5.0000e-005	5.6600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5167					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.2000e-004	5.0000e-005	5.6600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118
Total	**0.7843**	**5.0000e-005**	**5.6600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0118**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5167					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.2000e-004	5.0000e-005	5.6600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0118

Total	**0.7843**	**5.0000e-005**	**5.6600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0118**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.1194	0.7884	0.0190	53.4931
Unmitigated	28.1194	0.7884	0.0190	53.4931

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	4 / 0	3.9791	0.1306	3.1400e-003	8.1794
Gasoline/Service Station	0.265638 / 0.16281	0.3356	8.6800e-003	2.1000e-004	0.6152
Hotel	5.85972 / 0.65108	6.1144	0.1914	4.6000e-003	12.2701
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Strip Mall	14.0027 / 8.58228	17.6904	0.4577	0.0111	32.4285
Total		**28.1194**	**0.7884**	**0.0190**	**53.4931**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Discount Club	4 / 0	3.9791	0.1306	3.1400e-003	8.1794
Gasoline/Service Station	0.265638 / 0.16281	0.3356	8.6800e-003	2.1000e-004	0.6152
Hotel	5.85972 / 0.65108	6.1144	0.1914	4.6000e-003	12.2701
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	14.0027 / 8.58228	17.6904	0.4577	0.0111	32.4285
Total		**28.1194**	**0.7884**	**0.0190**	**53.4931**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

	MT/yr			
Mitigated	197.3559	11.6634	0.0000	488.9410
Unmitigated	197.3559	11.6634	0.0000	488.9410

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	198.49	40.2917	2.3812	0.0000	99.8209
Total		**197.3559**	**11.6634**	**0.0000**	**488.9410**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Discount Club	636.5	129.2038	7.6357	0.0000	320.0968
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	126.47	25.6723	1.5172	0.0000	63.6020
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	198.49	40.2917	2.3812	0.0000	99.8209
Total		**197.3559**	**11.6634**	**0.0000**	**488.9410**

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

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Generator Emissions

Table 6: Costco Emergency Generator Emissions

Conversion Factors

HP/kW	1.3410	
PM10 Fraction of Total PM[1]	0.960	
PM2.5 Fraction of Total PM[2]	0.937	
NMHC frac - diesel[3]	5%	
NOX frac - diesel[3]	95%	
Ratings:	1,000	kW
	1,341	HP
Load Factor[4]:	0.74	
Operating Hours per Unit[5]:	2	hours/day
	50	hours/year

Emergency Generator Emissions

Units	VOC[7]	NOX[7]	PM10	PM2.5
g/kW-hr			—	—
g/HP-hr[6]	0.31	4.56	0.1440	0.1406
lbs/hr	0.68	9.98	0.32	0.31
lbs/day	**1.35**	**19.95**	**0.63**	**0.61**
lbs/yr	33.79	498.80	15.75	15.37
Avg lbs/day	0.09	1.37	0.04	0.04
tons/yr	1.69E-02	2.49E-01	7.88E-03	7.69E-03

Notes:

1 Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION

2 Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION

3 Policy: CARB Emission Factors for CI Diesel Engines – Percent HC in Relation to NMHC + Nox: http://www.baaqmd.gov/~/media/Files/Engineering/policy_and_procedures/Engines/EmissionFactorsforDieselEngines.ashx

4 Load Factor based on CalEEMod Generator Set Load Factor

5 Number of hours permitted for testing and maintenance consistent with BAAQMD Regulation 9-8-330.3

6 ARB 2011 Final Regulation Order for the ATCM for stationary engines, Table 1, Model year 2008+: https://www.arb.ca.gov/regact/2010/atcm2010/finalregorder.pdf

7 VOC and NOx emission factor were calculated from the combined NMHC+NOx emission factor of 4.8 g/bhp-hr, using the same fractions and VOC to NMHC or TC conversion factors as Emissions of GHGs assume 99.11% of the CO2e emissions occur as CO2, based on Climate Registry emission factors as referenced above.

Source: ESA 2018.

Table 7: Hotel Emergency Generator Emissions

Conversion Factors

HP/kW	1.3410	
PM10 Fraction of Total PM[1]	0.960	
PM2.5 Fraction of Total PM[2]	0.937	
NMHC frac - diesel[3]	5%	
NOX frac - diesel[3]	95%	
Ratings:	1,000	kW
	1,341	HP
Load Factor[4]:	0.74	
Operating Hours per Unit[5]:	2	hours/day
	50	hours/year

Emergency Generator Emissions

Units	VOC [7]	NOX [7]	PM10	PM2.5
g/kW-hr	—	—	—	—
g/HP-hr[6]	0.31	4.56	0.1440	0.1406
lbs/hr	0.68	9.98	0.32	0.31
lbs/day	**1.35**	**19.95**	**0.63**	**0.61**
lbs/yr	33.79	498.80	15.75	15.37
Avg lbs/day	0.09	1.37	0.04	0.04
tons/yr	**0.02**	**0.25**	**7.88E-03**	**7.69E-03**

Notes:

1 Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION

2 Table A - Updated CEIDARS Table with PM2.5 Fractions, INTERNAL COMBUSTION - DISTILLATE AND DIESEL-ELECTRIC GENERATION

3 Policy: CARB Emission Factors for CI Diesel Engines – Percent HC in Relation to NMHC + Nox: http://www.baaqmd.gov/~/media/Files/Engineering/policy_and_procedures/Engines/EmissionFactorsforDieselEngines.ashx

4 Load Factor based on CalEEMod Generator Set Load Factor

5 Number of hours permitted for testing and maintenance consistent with BAAQMD Regulation 9-8-330.3

6 ARB 2011 Final Regulation Order for the ATCM for stationary engines, Table 1, Model year 2008+: https://www.arb.ca.gov/regact/2010/atcm2010/finalregorder.pdf

7 VOC and NOx emission factor were calculated from the combined NMHC+NOx emission factor of 4.8 g/bhp-hr, using the same fractions and VOC to NMHC or TC conversion Emissions of GHGs assume 99.11% of the CO2e emissions occur as CO2, based on Climate Registry emission factors as referenced above.

Source: ESA 2018.

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Vehicle Emissions

Project Trip Generation

Table 1: Previous Trips Generation Estimates (Phase 1)[1]

Land Use	Size	Unit	Weekday Trips	Saturday Trips	Weekday Trip Rate	Saturday Trip Rate
Retail	24	1000sqft	1,000	1,170	42.6	49.8
Club Retail with Fuel	148	1000sqft	10,710	11,060	72.4	74.7
Hotel (150 Rooms)	88	1000sqft	1,230	1,230	14.0	14.0
		Total	**12,940**	**13,460**		
	Reductions[1]	Pass By Trips (Retail)	300	350		
		Pass By Trips (Club Retail with Fuel)	3,750	2,210		
		Total After Reductions	**8,890**	**10,900**		

Table 2: Previous Trips Generation Estimates (Phase 2)[1]

Land Use	Size	Unit	Weekday Trips	Saturday Trips	Weekday Trip Rate	Saturday Trip Rate
Retail	246	1000sqft	10,510	12,300	42.6	49.9
		30% Reduction	3,153	3,690		
		Net Trips	**7,357**	**8,610**		

Table 3: Updated Trips Generation Estimates (Phase 1)

Land Use	Size	Unit	Weekday Trip Rate	Saturday Trip Rate	Weekday Trips	Saturday Trips
Retail	5	1000sqft	42.6	49.8	213	249
Club Retail with Fuel	148	1000sqft	72.4	74.7	10,710	11,060
Hotel (231 Rooms)	132	1000sqft	14.0	14.0	1,845	1,845
				Total	**12,768**	**13,154**
				Pass By Trips (Retail)	64	75
			Reductions[1]	Pass By Trips (Club Retail with Fuel)	3,750	2,210
Trip Rates for CalEEMod	**Weekday Trip Rate**	**Saturday Trip Rate**		**Net Total**		
Retail	**29.82**	**34.89**		Retail	149	174
Club Retail with Fuel	**47.03**	**59.80**		Club Retail with Fuel	6,960	8,850
Hotel (231 Rooms)*	**7.99**	**7.99**		Hotel (231 Rooms)	1,845	1,845
**CalEEMod uses vehicle trips per room instead of SF*						
Vehicle Type	**Fleet Distribution**	**Fleet Distribution****		**Weighted Daily Trips**		
LDA	0.59	0.594046867		Retail	156	
LDT1	0.06	0.064403952		Club Retail with Fuel	7,500	
LDT2	0.21	0.208695384		Hotel (231 Rooms)	1,845	
MDV	0.13	0.132853797				
**These values entered in CalEEMod, all other vehicle categories zeroed-out, only these light-duty vehicle categories are evaluated.*				**Total After Reductions**	**8,954**	**10,869**
				Weighted Daily Trips	**9,501**	

Table 4: Updated Trips Generation Estimates (Phase 2)

Land Use	Size	Unit	Weekday Trip Rate	Saturday Trip Rate	Weekday Trips	Saturday Trips
Retail	184	1000sqft	43	50	7,849	9,185
Trip Rates for CalEEMod	**Weekday Trip Rate**	**Saturday Trip Rate**		**Total**	**7,849**	**9,185**
Retail	**29.85**	**34.94**	**Reductions[1]**	Pass By Trips (Retail)	2,355	2,756
				Total After Reductions	**5,494**	**6,430**
				Weighted Daily Trips	**5,596**	

Hotel/Retail Trucks

Land Use	Weighted Daily Trucks
Phase 2-Retail	165
Phase 1-Retail	4
Phase 1-Hotel	54

Phase 2 Retail Trucks

Weekday Trips	Weekend Trips
157	184
Weighted Daily Trucks	
112.45	52.64

1) Johnson Drive Economic Development Zone Transportation Impact Analysis, Fehr & Peers, 2015.

Table 9: Light-Duty Vehicle Idling Emissions at Gas Station

Phase	Trips per Day (In/Out)	# of Cars Idling per Day	Idling Duration (min)
Phase 1A-Costco Gas Station	3371	1686	10

Emission Factors

2021				2030				2031			
ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
g/min				g/min				g/min			
8.11E-03	1.04E-02	8.85E-04	8.46E-04	2.71E-03	4.08E-03	5.75E-04	5.28E-04	2.47E-03	3.83E-03	5.40E-04	4.96E-04

Daily Emissions

2021				2030				2031			
ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
lbs/day				lbs/day				lbs/day			
3.01E-01	3.85E-01	3.29E-02	3.14E-02	1.01E-01	1.51E-01	2.14E-02	1.96E-02	9.18E-02	1.42E-01	2.01E-02	1.84E-02

Annual Emissions

2021				2030				2031			
ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
lbs/year				lbs/year				lbs/year			
110.0	140.5	12.0	11.5	36.7	55.3	7.8	7.2	33.5	51.9	7.3	6.7
Tons/year				Tons/year				Tons/year			
0.0550	0.0702	0.0060	0.0057	0.0183	0.0276	0.0039	0.0036	0.0168	0.0260	0.0037	0.0034

Table 10: HHDT Running and Starting Exhaust Emissions

Williams, California 95987	# of Trucks per Day	Truck Trips per Day (In/Out)	Truck Trips per Hour (In/Out)	Trip Length (mi)
Fedex	390	780	78	7.3
Costco	10	20	2	24.5
Gas Station	6	12	1	30.0
Phase 1 - Retail/Hotel	29	58	6	7.3
Phase 2- Trucks	165	330	33	7.3

Emissions Factors

	2021								2030								2031							
	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW
	Emission Factor (g/mi)								Emission Factor (g/mi)								Emission Factor (g/mi)							
Running - Costco Trucks	1.98E-02	2.04E+00	2.49E-02	3.56E-02	6.11E-02	2.38E-02	8.90E-03	2.62E-02	2.34E-02	2.66E+00	2.84E-02	3.53E-02	6.05E-02	2.72E-02	8.82E-03	2.59E-02	2.33E-02	2.63E+00	2.84E-02	3.52E-02	6.04E-02	2.72E-02	8.80E-03	2.59E-02
Running - All Other Trucks	1.36E-01	4.12E+00	6.07E-02	3.55E-02	6.08E-02	5.81E-02	8.86E-03	2.61E-02	2.29E-02	2.53E+00	2.38E-02	3.55E-02	6.10E-02	2.28E-02	8.89E-03	2.61E-02	2.28E-02	2.52E+00	2.37E-02	3.56E-02	6.10E-02	2.27E-02	8.89E-03	2.61E-02
Starting - Costco Trucks		2.39E+00								2.41E+00								7.19E+00						
Starting - All Other Trucks		1.90E+00								2.39E+00								2.39E+00						

DAILY	2021								2030								2031							
	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW
Source	Emissions (lb/day)								Emissions (lb/day)								Emissions (lb/day)							
Costco	0.0	2.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.1	0.0	0.0	0.0
Gas Station	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Phase 1 - Retail/Hotel	0.1	4.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	2.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.1	0.0	0.0	0.0
Phase 2- Trucks	0.7	23.3	0.3	0.2	0.3	0.3	0.0	0.1	0.1	15.2	0.1	0.2	0.3	0.1	0.0	0.1	0.1	15.2	0.1	0.2	0.3	0.1	0.0	0.1
Phase 1	0.2	8.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	7.8	0.1	0.1	0.2	0.1	0.0	0.1	0.1	8.1	0.1	0.1	0.2	0.1	0.0	0.1
Full Buildout	0.9	31.4	0.4	0.3	0.5	0.4	0.1	0.2	0.2	23.0	0.2	0.3	0.5	0.2	0.1	0.2	0.2	23.3	0.2	0.3	0.5	0.2	0.1	0.2

	2021				2030				2031			
	ROG	NOX	Total PM10	Total PM2.5	ROG	NOX	Total PM10	Total PM2.5	ROG	NOX	Total PM10	Total PM2.5
Source	Emissions (lb/day)				Emissions (lb/day)				Emissions (lb/day)			
Phase 1	0.2	8.1	0.4	0.2	0.1	7.8	0.3	0.2	0.1	8.1	0.3	0.2
Full Buildout	0.9	31.4	1.2	0.7	0.2	23.0	1.0	0.5	0.2	23.3	1.0	0.5

ANNUAL	2021								2030								2031							
	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW
Source	Emissions (lb/year)								Emissions (lb/year)								Emissions (lb/year)							
Costco	7.8	843.5	9.8	14.0	24.1	9.4	3.5	10.3	9.2	1086.1	11.2	13.9	23.8	10.7	3.5	10.2	9.2	1151.2	11.2	13.9	23.8	10.7	3.5	10.2
Gas Station	5.7	614.5	7.2	10.3	17.7	6.9	2.6	7.6	6.8	792.7	8.2	10.2	17.5	7.9	2.6	7.5	6.8	830.2	8.2	10.2	17.5	7.9	2.5	7.5
Phase 1 - Retail/Hotel	46.5	1499.4	20.8	12.1	20.8	19.9	3.0	8.9	7.8	979.9	8.2	12.2	20.9	7.8	3.0	8.9	7.8	976.6	8.1	12.2	20.9	7.8	3.0	8.9
Phase 2- Trucks	263.5	8492.0	117.7	68.8	117.9	112.6	17.2	50.5	44.4	5549.7	46.3	68.9	118.2	44.3	17.2	50.7	44.2	5530.8	46.0	69.0	118.3	44.0	17.2	50.7

	2021								2030								2031							
	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW	ROG	NOX	PM10 Exh	PM10 TW	PM10 BW	PM2.5 Exh	PM2.5 TW	PM2.5 BW
Source	Emissions (tons/year)								Emissions (tons/year)								Emissions (tons/year)							
Phase 1	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
Full Buildout	0.2	5.7	0.1	0.1	0.1	0.1	0.0	0.0	0.0	4.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.2	0.0	0.1	0.1	0.0	0.0	0.0

	2021				2030				2031			
	ROG	NOX	Total PM10	Total PM2.5	ROG	NOX	Total PM10	Total PM2.5	ROG	NOX	Total PM10	Total PM2.5
Source	Emissions (tons/year)				Emissions (tons/year)				Emissions (tons/year)			
Phase 1	0.03	1.48	0.07	0.04	0.0	1.4	0.1	0.0	0.0	1.5	0.1	0.0
Full Buildout	0.2	5.7	0.2	0.1	0.0	4.2	0.2	0.1	0.0	4.2	0.2	0.1

Table 11: HHDT Idling Exhaust Emissions

Source	# of Trucks per Day	# of Trucks per Hour	Idling Minutes
Fedex	390	39	15
Costco	10	1	15
Gas Station	6	1	15
Phase 1 - Retail/Hotel	29	3	15
Phase 2- Trucks	165	17	15

Emissions Factors

	2021				2030				2031			
	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
	Emission Factor (g/min)				Emission Factor (g/min)				Emission Factor (g/min)			
Costco Trucks	3.95E-02	4.66E-01	1.68E-04	1.61E-04	3.95E-02	4.66E-01	1.68E-04	1.61E-04	3.95E-02	4.66E-01	1.68E-04	1.61E-04
All Other Trucks	3.98E-02	5.99E-01	5.51E-04	5.28E-04	3.92E-02	4.95E-01	2.35E-04	2.25E-04	3.93E-02	4.92E-01	2.25E-04	2.16E-04

	2021				2030				2031			
DAILY	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
Source	Emissions (lb/day)				Emissions (lb/day)				Emissions (lb/day)			
Costco	0.01	0.15	0.00	0.00	0.01	0.15	0.00	0.00	0.01	0.15	0.00	0.00
Gas Station	0.01	0.09	0.00	0.00	0.01	0.09	0.00	0.00	0.01	0.09	0.00	0.00
Phase 1 - Retail/Hotel	0.04	0.58	0.00	0.00	0.04	0.48	0.00	0.00	0.04	0.47	0.00	0.00
Phase 2- Trucks	0.22	3.27	0.00	0.00	0.21	2.70	0.00	0.00	0.21	2.69	0.00	0.00
Phase 1	0.06	0.82	0.00	0.00	0.06	0.72	0.00	0.00	0.06	0.72	0.00	0.00
Full Buildout	0.28	4.09	0.00	0.00	0.27	3.43	0.00	0.00	0.27	3.41	0.00	0.00

ANNUAL	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
Source	Exhaust Emissions (lb/year)				Exhaust Emissions (lb/year)				Exhaust Emissions (lb/year)			
Costco	4.76	56.29	0.02	0.02	4.76	56.29	0.02	0.02	4.76	56.29	0.02	0.02
Gas Station	2.86	33.78	0.01	0.01	2.86	33.78	0.01	0.01	2.86	33.78	0.01	0.01
Phase 1 - Retail/Hotel	14.01	210.73	0.19	0.19	13.81	174.23	0.08	0.08	13.81	173.26	0.08	0.08
Phase 2- Trucks	79.33	1193.47	1.10	1.05	78.20	986.72	0.47	0.45	78.22	981.27	0.45	0.43

	2021				2030				2031			
	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5	ROG	NOX	PM10	PM2.5
Source	Exhaust Emissions (tons/year)				Exhaust Emissions (tons/year)				Exhaust Emissions (tons/year)			
Phase 1	0.01	0.15	0.00	0.00	0.01	0.13	0.00	0.00	0.01	0.13	0.00	0.00
Full Buildout	0.05	0.75	0.00	0.00	0.05	0.63	0.00	0.00	0.05	0.62	0.00	0.00

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Gas Station Emissions

Table 8: Gas Station Evaporative TOG Emissions

Annual Gasoline Throughput (gal)[1]
26,640,000

Emission Factors for Enhance Vapor Recovery System[2]			
lb/kgal		Fueling	
0.07287	0.42	Non-ORVR Vehicles[3]	13%
	0.021	ORVR Vehicles[3]	87%
0.15		Bulk Transfer Losses	
0.024		Pressure Driven Losses	
0.24		Fueling - Spillage	
0.009		Gasoline Hose Losses	
0.49587		**Total**	

6.60 tons/year
36.19 lbs/day

1 Johnson Drive HRA Assumptions

2 Emission factors from CARB "Revised Emissions Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities". December 23, 2013 (CARB, 2013). Assumes use of enhanced vapor recovery systems

3 Based on CARB "Revised Emissions Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities". Attachment 1, Table 1-2 (CARB, 2014), by year 2021 , 87% vehicles served at gas stations will be ORVR vehicles. The emission factors for fueling is the composition emission factor based on the two types of vehicles.

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Transportation Refrigeration Unit Emissions

TRU Operation

Table 5: TRU Operations Emissions

Source	Input	ROG	NOX	PM10 (DPM)	PM2.5	ROG	NOX	PM10 (DPM)	PM2.5
Costco									
Daily Trucks[1]	10								
Trucks per Hour	1								
Percent box trucks with TRUs[1]	75%								
TRU operation/trip (hrs)[1]	2	lbs/hr				lbs/year			
Annual hours of TRU operation	5,475	7.77E-03	1.15E-01	6.90E-04	6.90E-04	4.25E+01	6.28E+02	3.78E+00	3.78E+00
						Daily Average Emissions (lbs/day)			
						1.16E-01	1.72E+00	1.03E-02	1.03E-02
Phase 1 - Retail/Hotel									
Daily one-way trips	58								
Daily Trucks	29								
Trucks per Hour	3								
Percent semi trucks with TRUs[1]	25%								
TRU operation/trip (hrs)[1]	2	lbs/hr				lbs/year			
Annual hours of TRU operation	5,320	5.66E-03	8.35E-02	5.03E-04	5.03E-04	4.13E+01	6.10E+02	3.67E+00	3.67E+00
						Daily Average Emissions (lbs/day)			
						1.13E-01	1.67E+00	1.01E-02	1.01E-02
Phase 2 - Onsite Businesses									
Daily one-way trips	165								
Daily Trucks	83								
Trucks per Hour	8								
Percent semi trucks with TRUs[1]	25%								
TRU operation/trip (hrs)[1]	2	lbs/hr				lbs/year			
Annual hours of TRU operation	15,065	1.60E-02	2.37E-01	1.42E-03	1.42E-03	1.17E+02	1.73E+03	1.04E+01	1.04E+01
						Daily Average Emissions (lbs/day)			
						3.21E-01	4.73E+00	2.85E-02	2.85E-02

Parameters for TRU Trucks	
TRU horsepower[2]	34
TRU load factor	0.46
ROG[5,6,7,8]	0.23
NOX[5,6]	3.33
Ultra-Low Emission TRU emission factor (g/hp-hr)[3]	0.02
NMHC +NOx for Tier 4 Offroad Engines(g/hp-hr)	3.5
NMHC Fraction [5,6]	5%
NOx Fraction [5,6]	95%
NMHC/HC [7]	0.984
ROG/HC [8]	1.266

Phase	ROG	NOX	PM10/DPM	PM2.5
	Annual Emissions (tons/year)			
Phase 1	4.19E-02	6.19E-01	3.72E-03	3.72E-03
Full Buildout	1.00E-01	1.48E+00	8.92E-03	8.92E-03

Phase	ROG	NOX	PM10/DPM	PM2.5
	Daily Average Emissions (lbs/day)			
Phase 1	2.30E-01	3.39E+00	2.04E-02	2.04E-02
Full Buildout	5.50E-01	8.12E+00	4.89E-02	4.89E-02

Notes:

1 Johnson Drive HRA Assumptions
2 ARB 2011 Staff Report: Amendments for the ATCM for TRUs, table III-1: https://www.arb.ca.gov/regact/2011/tru2011/truisor.pdf
3 Required per ARB ATCM, section 2477.5 (b), table 6: https://www.arb.ca.gov/diesel/tru/documents/fro_10-16-12.pdf
4 Calculation takes variable emissions into account
5 Table 1, https://www.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017.pdf
6 Policy: CARB Emission Factors for CI Diesel Engines – Percent HC in Relation to NMHC + Nox:
7 NMHC/HC based on EPA conversion factor. https://nepis.epa.gov/Exe/ZyPDF.cgi/P10081RP.PDF?Dockey=P10081RP.PDF
8 ROG/HC based on CARB recommended conversion factor. https://www.arb.ca.gov/msprog/moyer/guidelines/2011gl/2011cmp_appd_4_28_11.pdf

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