

Air Quality and Greenhouse Gas Analysis

Rocklin Gateway Project

Prepared for:

THE WOLFF COMPANY

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Introduction

This Air Quality and Greenhouse Gas Analysis identifies and analyzes the potential environmental impacts from the Rocklin Gateway Project (proposed project) related to air quality and greenhouse gas (GHG) emissions. The information and analysis in this document is organized in accordance with the checklist in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that should be applied to the project are prescribed. All modeling results are included as the Appendix to this document.

Project Summary

The proposed project is located north of the intersection of Pacific Street and Midas Avenue in the City of Rocklin (see Figure 1, Project Location Map). The project site consists of approximately seven acres and is currently undeveloped with scattered trees. Access to the site would be primarily from Pacific Street, with a secondary access point from Midas Avenue. The entire project site is currently designated as Mixed Use (MU) under the City's General Plan and zoned for Planned Unit Development Mixed Use (PUD-MU).

An Initial Study / Mitigated Negative Declaration (IS / MND) was previously prepared for the project site in 2008. The previous analysis included a mixed-use commercial and residential condominium development consisting of 140 residential units, six three-story buildings, and one single story building. The current proposed project would not include any commercial development, but would add 64 units, from what was previously analyzed and approved, for a total of 204 residential units (see Figure 2, Project Site Plan).

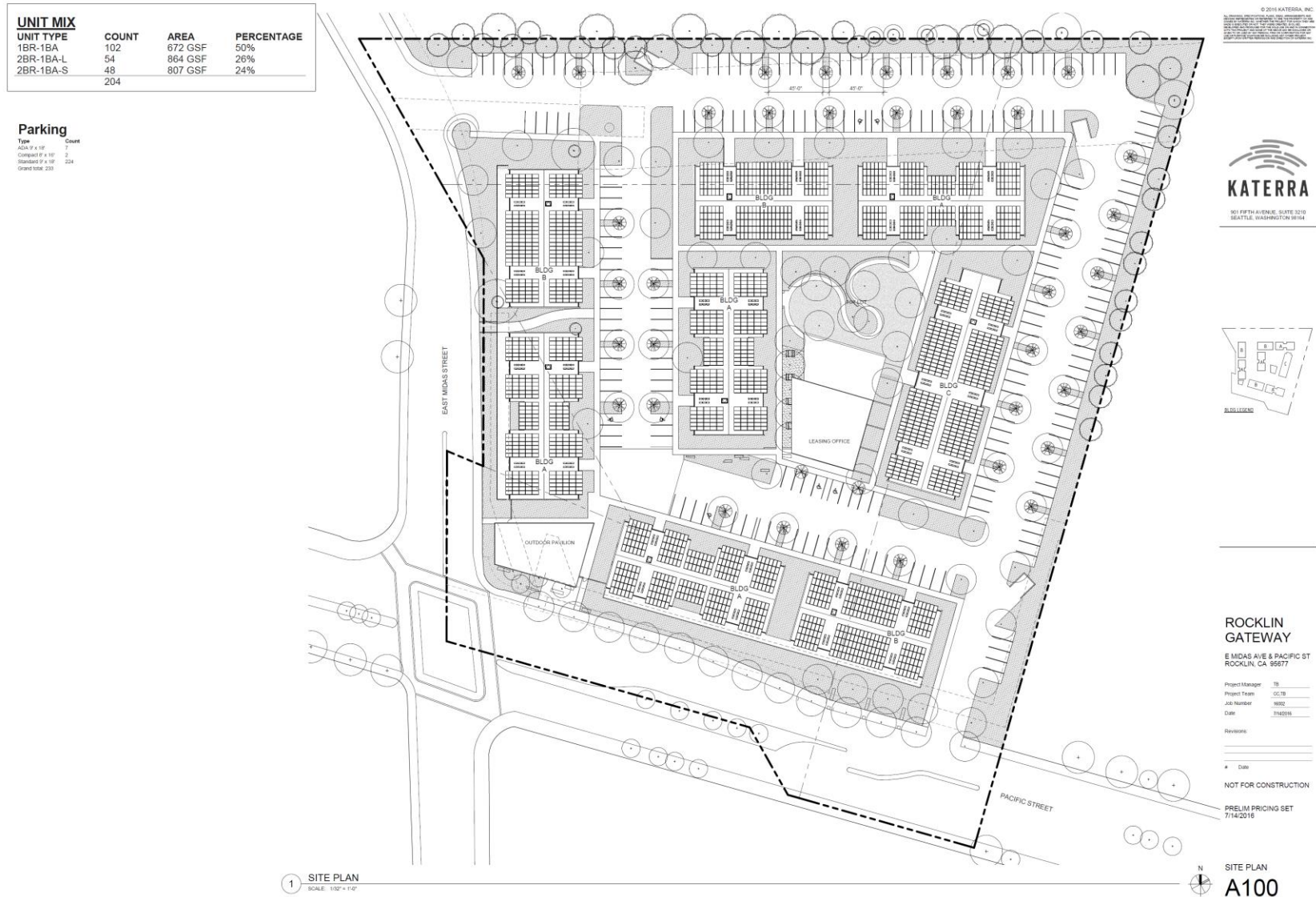
Site development would involve clearing and grading of the site, which would include tree removal and some transplanting. Trenching and digging for underground utilities and infrastructure would also be necessary. During project construction, approximately 1,000 cubic yards (CY) of soil would be exported. The proposed project construction is anticipated to commence in July 2017 and be fully operational by November 2018.

Surrounding land uses include a small equestrian field, and undeveloped land to the west and northwest. Commercial developments are located to the southwest, southeast, and east of the project site. In addition, Union Pacific Railroad (UPRR) tracks are located approximately 34 feet west of the project site. Because the proposed project would include residential uses, the project would be considered to introduce sensitive receptors to the area. The nearest existing sensitive receptors would be the existing single-family residences located approximately 0.05-mile southwest of the site.

Figure 1
Project Location Map



Figure 2
Preliminary Site Plan



Sources

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15. Sacramento Metropolitan Air Quality Management District. *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions)*. September 26, 2013.
16. U.S. Environmental Protection Agency. *National Ambient Air Quality Standards (NAAQS)*. Available at: <https://www.epa.gov/criteria-air-pollutants>. Accessed August 2016.

III. AIR QUALITY. <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✗	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	✗	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✗	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✗	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	✗	☐

Discussion

- a,b. The proposed project site is located within the Sacramento Valley Air Basin (SVAB) and is under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). The SVAB is designated nonattainment for the federal particulate matter 2.5 microns in diameter (PM_{2.5}) and the State particulate matter 10 microns in diameter (PM₁₀) standards, as well as for both the federal and State ozone standards. The federal Clean Air Act requires areas designated as federal nonattainment to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the national ambient air quality standards (NAAQS). The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. In compliance with regulations, the PCAPCD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the NAAQS, including control strategies to reduce air pollutant emissions via regulations, incentive programs, public education, and partnerships with other agencies.

The current applicable air quality plan for the proposed project area is the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan), adopted September 26, 2013. The U.S. Environmental Protection Agency (USEPA) determined the motor vehicle emission budgets in the Plan to be adequate and made such findings effective August 25, 2014. On January 9, 2015, the USEPA approved the 2013 Ozone Attainment Plan.

The 2013 Ozone Attainment Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the CAA requirements, including the NAAQS. It should be noted that in addition to strengthening the 8-hour

ozone NAAQS, the USEPA also strengthened the secondary 8-hour ozone NAAQS, making the secondary standard identical to the primary standard. The SVAB remains classified as a severe nonattainment area with an attainment deadline of 2027. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). With the publication of the new NAAQS ozone rules, areas in nonattainment must update their ozone attainment plans and submit new plans by 2020/2021.

General conformity requirements of the regional air quality plan include whether a project would cause or contribute to new violations of any NAAQS, increase the frequency or severity of an existing violation of any NAAQS, or delay timely attainment of any NAAQS. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, the PCAPCD adopts recommended thresholds of significance for emissions of PM₁₀, and ozone precursors – reactive organic gases (ROG) and oxides of nitrogen (NO_x). On October 13, 2016, the PCAPCD adopted updated significance thresholds for the aforementioned pollutants.

The significance thresholds, expressed in pounds per day (lbs/day), listed in Table 1 are the PCAPCD's recently updated thresholds of significance for use in the evaluation of air quality impacts associated with proposed development projects. The City of Rocklin, as lead agency, uses the PCAPCD's recommended thresholds of significance for CEQA evaluation purposes. Thus, if the proposed project's emissions exceed the pollutant thresholds presented in Table 1, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

Table 1		
PCAPCD Thresholds of Significance		
Pollutant	Construction Threshold (lbs/day)	Operational Threshold (lbs/day)
ROG	82	55
NO _x	82	55
PM ₁₀	82	82
<i>Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016.</i>		

Implementation of the proposed project would contribute local emissions in the area during both the construction and operation of the proposed project. The proposed project's short-term construction-related and long-term operational emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2 software (CalEEMod) – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average

speed, etc. However, where project-specific data was available, such data was input into the model (e.g., land uses, density, construction phases and timing, inherent project design and site features, daily vehicle trip rates, etc.).

Construction Emissions

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site. Construction exhaust emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction worker commutes, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes particulate matter (PM) emissions. As construction of the proposed project would generate air pollutant emissions intermittently within the site, and the vicinity of the site, until all construction has been completed, construction is a potential concern because the proposed project is in a non-attainment area for ozone and PM₁₀ and PM_{2.5}.

The project is required to comply with all PCAPCD rules and regulations for construction, which would be noted on City-approved construction plans. The applicable rules and regulations would include, but not be limited to, the following:

- Rule 202 related to visible emissions;
- Rule 218 related to architectural coatings;
- Rule 228 related to fugitive dust; and
- Regulation 3 related to open burning.

As shown in Table 1 above, the PCAPCD threshold of significance for construction is 82 pounds per day for ROG, NO_x, and PM₁₀. Table 2 below presents the estimated construction-related emissions of ROG, NO_x, and PM₁₀, resulting from the proposed project. CalEEMod inherently accounts for applicable PCAPCD rules, with the exception of Rule 218 related to architectural coatings; accordingly, the modeling was adjusted to reflect that the project would use only low volatile organic compound (VOC) paints per PCAPCD rules and regulations. Construction of the proposed project was assumed to commence in July of 2017. Adjusted values for construction phasing and durations were provided by the applicant.

Table 2		
Maximum Unmitigated Construction-Related Emissions		
Pollutant	Project Emissions (lbs/day)	PCAPCD Significance Threshold (lbs/day)
ROG	30.85	82.0
NO _x	52.00	82.0
PM ₁₀	20.99	82.0
<i>Source: CalEEMod, October 2016 (see Appendix).</i>		

As Table 2 indicates, the project's maximum unmitigated construction-related emissions would be below the applicable thresholds of significance. Therefore, construction activities associated with development of the proposed project would not substantially contribute to the PCAPCD's nonattainment status for ozone or PM. Accordingly, construction of the proposed project would not violate an air quality standard or contribute to an existing or projected air quality violation, and a less-than-significant impact would occur associated with construction.

Operational Emissions

Operational emissions of ROG, NO_x, and PM₁₀ would be generated by the proposed project from both mobile and stationary sources. Day-to-day activities such as the future residents' vehicle trips to and from the project site would make up the majority of the mobile emissions. Emissions would occur from area sources such as natural gas combustion from heating mechanisms, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

The project is required to comply with all PCAPCD rules and regulations, such as those listed previously for construction, as well as the following for operations:

- Rule 225 related to wood-burning appliances; and
- Rule 246 related to water heaters.

The estimated operational emissions for the proposed project are presented below in Table 3. The modeling was adjusted to reflect the project's use of only low-VOC paints per PCAPCD rules and regulations, inherent site or project design features (i.e., proximity to nearest bus stop), and compliance with applicable regulations (i.e., 2013 California Building Energy Efficiency Standards). Furthermore, the project was assumed to only use natural gas hearths due to the PCAPCD's recommended restriction of wood-burning appliances.

As Table 3 indicates, the project's maximum unmitigated operational-related emissions would be below the applicable thresholds of significance. Therefore, operations associated with development of the proposed project would not substantially contribute to the PCAPCD's nonattainment status for ozone or PM₁₀ and PM_{2.5}.

Table 3		
Unmitigated Operational Emissions		
Pollutant	Project Emissions (lbs/day)	PCAPCD Significance Threshold (lbs/day)
ROG	10.62	55
NO _x	13.72	55
PM ₁₀	7.82	82
<i>Source: CalEEMod, October 2016 (see Appendix).</i>		

Conclusion

The proposed project's construction and operational emissions would not exceed the applicable thresholds of significance. In addition, the project would be required to comply with all applicable PCAPCD rules and regulations. Because the project would not exceed the thresholds of significance, the proposed project would not substantially contribute to the region's nonattainment status of ozone or PM₁₀ and PM_{2.5}. Therefore, implementation of the proposed project would not violate an air quality standard or contribute to an existing or projected air quality violation, and a ***less-than-significant*** impact related to air quality could occur.

- c. A cumulative impact analysis considers a project over time in conjunction with other past, present, and reasonably foreseeable future projects whose impacts might compound those of the project being assessed. Due to the dispersive nature and regional sourcing of air pollutants, air pollution is already largely a cumulative impact. The nonattainment status of regional pollutants, including ozone and PM, is a result of past and present development, and, thus, cumulative impacts related to these pollutants could be considered cumulatively significant.

To improve air quality and attain the health-based standards, reductions in emissions are necessary within nonattainment areas. The project is part of a pattern of urbanization occurring in the greater Sacramento ozone nonattainment area. The growth and combined vehicle usage, and business activity within the nonattainment area from the project, in combination with other past, present, and reasonably foreseeable projects within Rocklin and surrounding areas, could either delay attainment of the standards or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. Thus, the project could cumulatively contribute to regional air quality health effects through emissions of criteria and mobile source air pollutants.

The PCAPCD recommends using the region's existing attainment plans as a basis for analysis of cumulative emissions. If a project would interfere with an adopted attainment plan, the project would inhibit the future attainment of AAQS, and thus result in a cumulative impact. As discussed above, the PCAPCD's recommended thresholds of significance for ozone precursors and PM₁₀ are based on attainment plans for the region. Thus, the PCAPCD concluded that if a project's ozone precursor and PM₁₀ emissions would be less than PCAPCD project-level thresholds, the project would not be expected to conflict with any relevant attainment plans, and would not result in a cumulatively considerable contribution to a significant cumulative impact. As a result, the PCACPD established operational phase cumulative-level emissions thresholds identical to the operational thresholds identified above, in Table 1.

As shown in Table 3 above, the proposed project would not result in emissions in exceedance of the applicable thresholds of significance for ozone precursors or PM₁₀. Accordingly, impacts related to the cumulative emissions of criteria pollutants for which PCAPCD is in non-attainment would be considered ***less than significant***.

- d. The major pollutant concentrations of concern are localized CO emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the proposed project would increase traffic volumes on streets near the project site; therefore, the project would be expected to increase local CO concentrations. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. The statewide CO Protocol document identifies signalized intersections operating at Level of Service (LOS) E or F, or projects that would result in the worsening of signalized intersections to LOS E or F, as having the potential to result in localized CO concentrations in excess of the State or federal AAQS, as a result of large numbers of cars idling at stop lights.

In accordance with the State CO Protocol, the PCAPCD recommends further analysis for localized CO concentrations if the project would cause a signalized intersection to be degraded from an acceptable LOS (i.e., LOS A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F), or substantially worsen an already existing unacceptable LOS at an intersection, as determined by a traffic study. Substantially worsen is defined by PCAPCD as an increase in delay by 10 seconds or more (or by five percent).

A *Traffic Impact Analysis* was prepared for the proposed project by KD Anderson & Associates to assess the proposed project's potential impacts on the surrounding circulation network. The proposed project would generate an estimated 1,356 vehicle trips per day. However, the additional trips would be relatively small in comparison to the capacity of the studied intersections in the project area. Therefore, the *Traffic Impact Analysis* concluded that the project would not result in any changes to peak hours LOS, and all intersections would remain at LOS A. As such, the proposed project would not reduce the LOS of any intersections from an acceptable level to an unacceptable level or lead to the substantial deterioration of LOS at any intersections. Consequently, the proposed project would not be anticipated to generate substantial localized CO concentrations.¹

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the

¹ KD Anderson & Associates, Inc. *Traffic Impact Analysis for Pacific Street/Midas Avenue Multi-Family Residential Project, Rocklin, California*. Prepared on August 10, 2016.

highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The project does not involve long-term operation of any stationary diesel engine or other major on-site stationary source of TACs. The CARB's Handbook includes distribution centers with associated diesel truck trips of more than 100 trucks per day as a source of substantial TAC emissions, and recommends siting new sensitive land uses a minimum of 1,000 feet away from such uses. The nearest distribution center to the proposed project site would be the UNFI facility at 1101 Sunset Boulevard in Rocklin, which is located approximately 2.83 miles northwest of the proposed project site. In addition, heavy-duty diesel truck trips would not be generated by the operation of the residential component of the project. Emissions of DPM resulting from construction-related equipment and vehicles are minimal and temporary, affecting a given receptor for a period of days or weeks, and would be regulated through compliance with the PCAPCD's rules and regulations.

The CARB, per its Handbook, recommends the evaluation of emissions when freeways are within 500 feet of sensitive receptors. Any project placing sensitive receptors within 500 feet of a major roadway or freeway may have the potential to expose those receptors to DPM. The edge of the nearest travel lane of the nearest freeway, Interstate 80, is located over 3,800 feet southeast of the project site. Thus, the project would not be subject to substantial DPM emissions associated with freeway traffic.

The CARB does not consider train tracks to be a significant source of TAC emissions; however, rail yards are considered a significant source of TACs by the CARB due to the substantial amount of trains and idling trains. The CARB recommends a setback of 1,000 feet from a major rail yard, as well as other limitations and mitigation approaches for sensitive land uses within one mile. The project site is located over six miles north of the nearest Union Pacific Railroad (UPRR) rail yard and is outside of the DPM isotopes associated with the rail yard emissions. Therefore, the project would not be affected by DPM emissions associated with a rail yard.

Overall, the proposed project is not located near any substantial sources of TACs, and development of the proposed project would not expose the future on-site sensitive receptors or the nearest sensitive receptors to significant levels of pollutant concentrations. Therefore, impacts related to substantial pollutant exposure to sensitive receptors would be ***less than significant***.

- e. Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Certain land uses such as wastewater treatment facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. The proposed project would not introduce any such land uses and is not

located in the vicinity of any existing or planned such land uses. In addition, residential uses are not typically associated with the creation of objectionable odors.

Construction of the project, particularly diesel fumes from construction equipment, could cause objectionable odors. However, construction emissions are minimal and temporary. Thus, construction of the project would not be expected to result in the generation of permanent long-term objectionable odors affecting any existing sensitive receptors or a substantial number of people.

Diesel fumes from construction equipment could be found to be objectionable; however, as addressed above, operation of construction equipment would be regulated by PCAPCD rules and regulations, restricted to certain hours per the Placer County Code, Section 9.36.030(A)(7), would occur intermittently throughout the course of a day, and be temporary in nature. For the aforementioned reasons, the project would not result in any noticeable objectionable odors associated with construction.

PCAPCD Rule 205, Nuisance, addresses the exposure of “nuisance or annoyance” air contaminant discharges, including odors, and provides enforcement of odor control. Rule 205 is complaint-based, where if public complaints are sufficient to cause the odor source to be considered a public nuisance, then the PCAPCD is required to investigate the identified source, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications to correct the nuisance condition. Thus, although not anticipated, if odor or air quality complaints are made upon development of the proposed project, the PCAPCD would be required (per PCAPCD Rule 205) to ensure that such complaints are addressed and mitigated, as necessary.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors affecting a substantial number of people, and impacts would be *less than significant*.

VII. GREENHOUSE GAS EMISSIONS. <i>Would the project:</i>		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✗	☐
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✗	☐

Discussion

- a,b. Emissions of Greenhouse Gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions, from vehicles traveling to and from the project site. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ equivalents (MTCO₂e/yr).

On October 13, 2016, the PCAPCD adopted GHG emissions thresholds in concert with the aforementioned criteria pollutant threshold update. The updated thresholds begin with a screening emission level of 1,100 MT CO₂e/yr. Any project below the 1,100 MT CO₂e/yr threshold is judged by the PCAPCD as having a less-than-significant impact on GHG emissions within the District, and thus would not conflict with any state or regional GHG emissions reduction goals. Projects that would result in emissions above the 1,100 MT CO₂e/yr threshold would not necessarily result in substantial impacts, if certain efficiency thresholds are met. The efficiency thresholds, which are based on service populations and square footage, are presented in Table 4.

Table 4			
PCAPCD Operational Thresholds of Significance			
Efficiency Thresholds			
Residential (MT CO₂e/capita)		Non-Residential (MT CO₂e/1,000 sf)	
Urban	Rural	Urban	Rural
4.5	5.5	26.5	27.3
<i>Source: Placer County Air Pollution Control District. Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016.</i>			

Projects that fall below the 1,100 MT CO₂e/yr threshold or meet the efficiency thresholds are considered to be in keeping with statewide GHG emissions reduction targets, which would ensure that the proposed project would not inhibit the State's achievement of GHG emissions reductions. Thus, projects which involve emissions below the 1,100 MT CO₂e/yr threshold or below the efficiency thresholds presented in Table 4, are considered to result in less-than-significant impacts in regards to GHG emissions within the District and thus would not conflict with any state or regional GHG emissions reduction goals. Finally, the PCAPCD has also established a Bright Line Cap, which shall be the maximum limit for any proposed project. The Bright Line Cap is 10,000 MT CO₂e/yr for all types of projects.

Buildout of the proposed project would contribute to increases of GHG emissions that are associated with global climate change during construction and operations. The proposed project's short-term construction-related and long-term operational GHG emissions are presented below.

Short-Term Construction GHG Emissions

Construction-related GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. However, the proposed project's construction GHG emissions have been estimated and compared to the PCAPCD's operational thresholds of significance for informational purposes. The proposed project's maximum annual construction-related GHG emissions are presented in Table 5. The construction modeling assumptions are described in the Air Quality section above.

Table 5		
Maximum Unmitigated Project Construction GHG Emissions		
	Construction GHG Emissions (MT CO₂e/yr)	Threshold of Significance (MT CO₂e/yr)
Maximum Annual Construction-related GHG Emissions	464.39	1,100
<i>Source: CalEEMod, October 2016 (see Appendix).</i>		

As shown in the table, the proposed project's maximum annual unmitigated construction-related GHG emissions would be below the applicable 1,100 MT CO₂e/yr threshold. Moreover, even if the proposed project's total construction-related GHG emissions, of

705.40 MT CO₂e, were considered, the total cumulative construction-related GHG emissions from both years of construction would still be well below the PCAPCD's 1,100 MT CO₂e/yr threshold. Accordingly, the proposed project would not be expected to have a significant impact related to GHG emissions during construction.

Long-Term Operational GHG Emissions

The modeling assumptions for operational GHG emissions are discussed in the Air Quality section of this report. It should be noted that the proposed project would be constructed to allow for the future installation of solar panels. The installation and operation of solar panels on the project site would provide an alternative source of energy, which would reduce the amount of GHG emissions, related to energy consumption, of the proposed project. However, because finalized plans for solar installation did not exist at the time of environmental analysis, the use of solar panels was not included in the emissions modeling for the proposed project. As such, the modeling completed for the proposed project represents a conservative analysis by assuming that the proposed project would not include the installation of solar panels. If solar panels are installed with the proposed project, the actual operational project related emissions would be lower than what is presented below. Nevertheless, the proposed project's estimated GHG emissions are presented in Table 6.

Table 6	
Unmitigated Project Operational GHG Emissions	
Emission Source	Annual GHG Emissions (MTCO₂e/yr)
Area	148.02
Energy	261.29
Mobile	1,457.73
Solid Waste	42.69
Water	35.64
TOTAL ANNUAL GHG EMISSIONS	1,945.37
<i>Source: CalEEMod, October 2016 (see Appendix).</i>	

As shown in the table, the proposed project would result in operational GHG emissions in excess of the 1,100 MT CO₂e/yr threshold. Accordingly, the project must be further reviewed under the efficiency thresholds presented in Table 4. The efficiency thresholds rely on GHG emissions in MTCO₂e per capita to determine significance for residential projects. As such, the proposed project's estimated operational emissions of 1,945.37 MTCO₂e/yr must be divided by the anticipated number of inhabitants. The City of Rocklin 2013-2021 Housing Element concluded that the average household size in the City during 2012 was 2.73 persons per household.² Using the City of Rocklin's persons per household factor, the 204 units included in the proposed project would result in approximately 557 residents. Thus, the proposed project would result in an efficiency rate of 3.49 MTCO₂e/capita (1,945.37 MTCO₂e divided by 557 residents equals 3.49 MTCO₂e/capita).

² City of Rocklin Economic and Community development Department. *City of Rocklin Housing Element*. Adopted 22,2013.

Table 7 Unmitigated Project Operational GHG Emissions (MT CO₂e/per capita)	
PCAPCD Urban Residential Efficiency Threshold	Project Emissions
4.5	3.49
<i>Sources:</i> • CalEEMod, October 2016 (see Appendix). • Placer County Air Pollution Control District. <i>Placer County Air Pollution Control District Policy. Review of Land Use Projects Under CEQA. October 13, 2016.</i>	

As shown in the table, the proposed project would result in operational GHG emissions below the applicable PCAPCD efficiency thresholds. Because the project's unmitigated annual GHG emissions would be below the applicable PCAPCD efficiency threshold, and the proposed project's construction emissions would be below the PCAPCD's 1,100 MT CO₂e/yr operational threshold, the proposed project would be considered to result in a ***less-than-significant*** impact related to GHG emissions and global climate change.

APPENDIX

CALHEMOD MODELING RESULTS

Rocklin Gateway
Placer County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	204.00	Dwelling Unit	7.00	204,000.00	583

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	414.88	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity adjusted for PG&E progress towards RPS Standards

Land Use - Site Plan

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Information from Traffic Study

Mobile Land Use Mitigation -

Area Mitigation - Applicant Information, PCAPCD rules & Regulations

Energy Mitigation - Assumed compliance with 2016 CalGreen Energy Efficiency Standard

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstructionPhase	NumDays	20.00	240.00
tblConstructionPhase	NumDays	230.00	240.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	10.00	88.00
tblConstructionPhase	PhaseEndDate	10/3/2019	11/15/2018
tblConstructionPhase	PhaseStartDate	11/2/2018	12/15/2017
tblGrading	MaterialExported	0.00	500.00
tblGrading	MaterialExported	0.00	500.00
tblLandUse	LotAcreage	12.75	7.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	414.88
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	ST_TR	7.16	6.65
tblVehicleTrips	SU_TR	6.07	6.65
tblVehicleTrips	WD_TR	6.59	6.65

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					
2017	0.4361	2.9347	2.3061	2.6500e-003	0.8642	0.1598	1.0240	0.4668	0.1474	0.6142	0.0000	239.6652	239.6652	0.0643	0.0000	241.0154
2018	3.4454	3.0313	3.0623	5.6400e-003	0.1679	0.1848	0.3527	0.0450	0.1747	0.2197	0.0000	462.8789	462.8789	0.0719	0.0000	464.3893
Total	3.8815	5.9660	5.3684	8.2900e-003	1.0321	0.3446	1.3767	0.5118	0.3221	0.8339	0.0000	702.5440	702.5440	0.1362	0.0000	705.4047

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					
2017	0.4361	2.9347	2.3061	2.6500e-003	0.8642	0.1598	1.0240	0.4668	0.1474	0.6142	0.0000	239.6649	239.6649	0.0643	0.0000	241.0151
2018	3.4454	3.0313	3.0623	5.6400e-003	0.1679	0.1848	0.3527	0.0450	0.1747	0.2197	0.0000	462.8785	462.8785	0.0719	0.0000	464.3890
Total	3.8815	5.9660	5.3684	8.2900e-003	1.0321	0.3446	1.3767	0.5118	0.3221	0.8339	0.0000	702.5434	702.5434	0.1362	0.0000	705.4041

[illegible]

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	13.9631	0.1914	17.2939	6.2400e-003		2.2237	2.2237		2.2236	2.2236	210.7234	90.8486	301.5720	0.1969	0.0166	310.8454
Energy	0.0149	0.1275	0.0543	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	293.1920	293.1920	0.0130	4.8100e-003	294.9567
Mobile	0.8543	2.5193	9.1746	0.0218	1.4360	0.0333	1.4692	0.3851	0.0306	0.4157	0.0000	1,645.034 1	1,645.034 1	0.0551	0.0000	1,646.191 1
Waste						0.0000	0.0000		0.0000	0.0000	19.0487	0.0000	19.0487	1.1257	0.0000	42.6893
Water						0.0000	0.0000		0.0000	0.0000	4.2168	19.0534	23.2702	0.4344	0.0105	35.6489
Total	14.8323	2.8382	26.5228	0.0289	1.4360	2.2673	3.7033	0.3851	2.2646	2.6496	233.9888	2,048.128 1	2,282.116 9	1.8252	0.0319	2,330.331 4

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9264	0.0177	1.5262	8.0000e-005		0.0184	0.0184		0.0183	0.0183	0.0000	147.0868	147.0868	5.2200e-003	2.6500e-003	148.0184
Energy	0.0119	0.1015	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	259.7280	259.7280	0.0122	4.2100e-003	261.2895
Mobile	0.8196	2.2682	8.4715	0.0193	1.2665	0.0296	1.2961	0.3396	0.0272	0.3669	0.0000	1,456.6999	1,456.6999	0.0493	0.0000	1,457.7347
Waste						0.0000	0.0000		0.0000	0.0000	19.0487	0.0000	19.0487	1.1257	0.0000	42.6893
Water						0.0000	0.0000		0.0000	0.0000	4.2168	19.0534	23.2702	0.4344	0.0105	35.6422
Total	1.7579	2.3874	10.0410	0.0201	1.2665	0.0562	1.3227	0.3396	0.0538	0.3934	23.2654	1,882.5681	1,905.8336	1.6268	0.0174	1,945.3740

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	88.15	15.88	62.14	30.53	11.80	97.52	64.28	11.80	97.63	85.15	90.06	8.08	16.49	10.87	45.58	16.52

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/3/2017	11/1/2017	5	88	
2	Grading	Grading	11/2/2017	11/21/2017	5	14	
3	Paving	Paving	11/22/2017	11/30/2017	5	7	
4	Building Construction	Building Construction	12/1/2017	11/1/2018	5	240	
5	Architectural Coating	Architectural Coating	12/15/2017	11/15/2018	5	240	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7

Acres of Paving: 0

Residential Indoor: 413,100; Residential Outdoor: 137,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	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
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
Site Preparation	7	18.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	63.00	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
Building Construction	9	147.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017**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					0.7949	0.0000	0.7949	0.4370	0.0000	0.4370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2129	2.2772	1.7335	1.7200e-003		0.1212	0.1212		0.1115	0.1115	0.0000	159.7877	159.7877	0.0490	0.0000	160.8158
Total	0.2129	2.2772	1.7335	1.7200e-003	0.7949	0.1212	0.9161	0.4370	0.1115	0.5484	0.0000	159.7877	159.7877	0.0490	0.0000	160.8158

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	6.9000e-004	7.7900e-003	7.4400e-003	2.0000e-005	5.3000e-004	1.1000e-004	6.4000e-004	1.5000e-004	1.0000e-004	2.5000e-004	0.0000	2.1173	2.1173	1.0000e-005	0.0000	2.1176
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	2.2500e-003	2.8300e-003	0.0289	7.0000e-005	6.2200e-003	4.0000e-005	6.2600e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.2559	5.2559	2.4000e-004	0.0000	5.2609
Total	2.9400e-003	0.0106	0.0363	9.0000e-005	6.7500e-003	1.5000e-004	6.9000e-003	1.8100e-003	1.4000e-004	1.9400e-003	0.0000	7.3732	7.3732	2.5000e-004	0.0000	7.3785

3.2 Site Preparation - 2017**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					0.7949	0.0000	0.7949	0.4370	0.0000	0.4370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2129	2.2772	1.7335	1.7200e-003		0.1212	0.1212		0.1115	0.1115	0.0000	159.7875	159.7875	0.0490	0.0000	160.8156
Total	0.2129	2.2772	1.7335	1.7200e-003	0.7949	0.1212	0.9161	0.4370	0.1115	0.5484	0.0000	159.7875	159.7875	0.0490	0.0000	160.8156

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	6.9000e-004	7.7900e-003	7.4400e-003	2.0000e-005	5.3000e-004	1.1000e-004	6.4000e-004	1.5000e-004	1.0000e-004	2.5000e-004	0.0000	2.1173	2.1173	1.0000e-005	0.0000	2.1176
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	2.2500e-003	2.8300e-003	0.0289	7.0000e-005	6.2200e-003	4.0000e-005	6.2600e-003	1.6600e-003	4.0000e-005	1.6900e-003	0.0000	5.2559	5.2559	2.4000e-004	0.0000	5.2609
Total	2.9400e-003	0.0106	0.0363	9.0000e-005	6.7500e-003	1.5000e-004	6.9000e-003	1.8100e-003	1.4000e-004	1.9400e-003	0.0000	7.3732	7.3732	2.5000e-004	0.0000	7.3785

3.3 Grading - 2017

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					0.0459	0.0000	0.0459	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2519	0.1777	2.1000e-004		0.0143	0.0143		0.0131	0.0131	0.0000	19.3282	19.3282	5.9200e-003	0.0000	19.4525
Total	0.0242	0.2519	0.1777	2.1000e-004	0.0459	0.0143	0.0602	0.0236	0.0131	0.0367	0.0000	19.3282	19.3282	5.9200e-003	0.0000	19.4525

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	6.9000e-004	7.7900e-003	7.4400e-003	2.0000e-005	5.3000e-004	1.1000e-004	6.4000e-004	1.5000e-004	1.0000e-004	2.5000e-004	0.0000	2.1173	2.1173	1.0000e-005	0.0000	2.1176
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	3.8000e-004	3.8200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6968	0.6968	3.0000e-005	0.0000	0.6975
Total	9.9000e-004	8.1700e-003	0.0113	3.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.7000e-004	1.1000e-004	4.7000e-004	0.0000	2.8141	2.8141	4.0000e-005	0.0000	2.8151

3.3 Grading - 2017**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					0.0459	0.0000	0.0459	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0242	0.2519	0.1777	2.1000e-004		0.0143	0.0143		0.0131	0.0131	0.0000	19.3282	19.3282	5.9200e-003	0.0000	19.4525
Total	0.0242	0.2519	0.1777	2.1000e-004	0.0459	0.0143	0.0602	0.0236	0.0131	0.0367	0.0000	19.3282	19.3282	5.9200e-003	0.0000	19.4525

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	6.9000e-004	7.7900e-003	7.4400e-003	2.0000e-005	5.3000e-004	1.1000e-004	6.4000e-004	1.5000e-004	1.0000e-004	2.5000e-004	0.0000	2.1173	2.1173	1.0000e-005	0.0000	2.1176
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	3.8000e-004	3.8200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.6968	0.6968	3.0000e-005	0.0000	0.6975
Total	9.9000e-004	8.1700e-003	0.0113	3.0000e-005	1.3500e-003	1.2000e-004	1.4700e-003	3.7000e-004	1.1000e-004	4.7000e-004	0.0000	2.8141	2.8141	4.0000e-005	0.0000	2.8151

3.4 Paving - 2017**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	6.6800e-003	0.0710	0.0515	8.0000e-005		3.9800e-003	3.9800e-003		3.6700e-003	3.6700e-003	0.0000	7.2427	7.2427	2.2200e-003	0.0000	7.2893
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.6800e-003	0.0710	0.0515	8.0000e-005		3.9800e-003	3.9800e-003		3.6700e-003	3.6700e-003	0.0000	7.2427	7.2427	2.2200e-003	0.0000	7.2893

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	1.5000e-004	1.9000e-004	1.9100e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3484	0.3484	2.0000e-005	0.0000	0.3487
Total	1.5000e-004	1.9000e-004	1.9100e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3484	0.3484	2.0000e-005	0.0000	0.3487

3.4 Paving - 2017**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	6.6800e-003	0.0710	0.0515	8.0000e-005		3.9800e-003	3.9800e-003		3.6700e-003	3.6700e-003	0.0000	7.2427	7.2427	2.2200e-003	0.0000	7.2893
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.6800e-003	0.0710	0.0515	8.0000e-005		3.9800e-003	3.9800e-003		3.6700e-003	3.6700e-003	0.0000	7.2427	7.2427	2.2200e-003	0.0000	7.2893

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	1.5000e-004	1.9000e-004	1.9100e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3484	0.3484	2.0000e-005	0.0000	0.3487
Total	1.5000e-004	1.9000e-004	1.9100e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3484	0.3484	2.0000e-005	0.0000	0.3487

3.5 Building Construction - 2017**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	0.0326	0.2773	0.1904	2.8000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	25.1453	25.1453	6.1900e-003	0.0000	25.2753
Total	0.0326	0.2773	0.1904	2.8000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	25.1453	25.1453	6.1900e-003	0.0000	25.2753

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	2.7200e-003	0.0203	0.0313	6.0000e-005	1.4800e-003	3.1000e-004	1.7900e-003	4.3000e-004	2.9000e-004	7.1000e-004	0.0000	4.9198	4.9198	4.0000e-005	0.0000	4.9206
Worker	4.3900e-003	5.5200e-003	0.0562	1.4000e-004	0.0121	8.0000e-005	0.0122	3.2300e-003	7.0000e-005	3.3000e-003	0.0000	10.2430	10.2430	4.6000e-004	0.0000	10.2527
Total	7.1100e-003	0.0258	0.0875	2.0000e-004	0.0136	3.9000e-004	0.0140	3.6600e-003	3.6000e-004	4.0100e-003	0.0000	15.1628	15.1628	5.0000e-004	0.0000	15.1733

3.5 Building Construction - 2017

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	0.0326	0.2773	0.1904	2.8000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	25.1453	25.1453	6.1900e-003	0.0000	25.2752
Total	0.0326	0.2773	0.1904	2.8000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	25.1453	25.1453	6.1900e-003	0.0000	25.2752

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	2.7200e-003	0.0203	0.0313	6.0000e-005	1.4800e-003	3.1000e-004	1.7900e-003	4.3000e-004	2.9000e-004	7.1000e-004	0.0000	4.9198	4.9198	4.0000e-005	0.0000	4.9206
Worker	4.3900e-003	5.5200e-003	0.0562	1.4000e-004	0.0121	8.0000e-005	0.0122	3.2300e-003	7.0000e-005	3.3000e-003	0.0000	10.2430	10.2430	4.6000e-004	0.0000	10.2527
Total	7.1100e-003	0.0258	0.0875	2.0000e-004	0.0136	3.9000e-004	0.0140	3.6600e-003	3.6000e-004	4.0100e-003	0.0000	15.1628	15.1628	5.0000e-004	0.0000	15.1733

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2922	2.5471	1.9198	2.9400e-003		0.1636	0.1636		0.1538	0.1538	0.0000	259.2628	259.2628	0.0635	0.0000	260.5952
Total	0.2922	2.5471	1.9198	2.9400e-003		0.1636	0.1636		0.1538	0.1538	0.0000	259.2628	259.2628	0.0635	0.0000	260.5952

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	0.0254	0.1925	0.3039	5.7000e-004	0.0154	2.9100e-003	0.0184	4.4300e-003	2.6800e-003	7.1100e-003	0.0000	50.4125	50.4125	3.8000e-004	0.0000	50.4204
Worker	0.0404	0.0515	0.5192	1.4900e-003	0.1264	8.3000e-004	0.1272	0.0336	7.7000e-004	0.0344	0.0000	102.7689	102.7689	4.4100e-003	0.0000	102.8616
Total	0.0658	0.2440	0.8231	2.0600e-003	0.1418	3.7400e-003	0.1456	0.0381	3.4500e-003	0.0415	0.0000	153.1814	153.1814	4.7900e-003	0.0000	153.2820

3.5 Building Construction - 2018

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	0.2922	2.5471	1.9198	2.9400e-003		0.1636	0.1636		0.1538	0.1538	0.0000	259.2625	259.2625	0.0635	0.0000	260.5949
Total	0.2922	2.5471	1.9198	2.9400e-003		0.1636	0.1636		0.1538	0.1538	0.0000	259.2625	259.2625	0.0635	0.0000	260.5949

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	0.0254	0.1925	0.3039	5.7000e-004	0.0154	2.9100e-003	0.0184	4.4300e-003	2.6800e-003	7.1100e-003	0.0000	50.4125	50.4125	3.8000e-004	0.0000	50.4204
Worker	0.0404	0.0515	0.5192	1.4900e-003	0.1264	8.3000e-004	0.1272	0.0336	7.7000e-004	0.0344	0.0000	102.7689	102.7689	4.4100e-003	0.0000	102.8616
Total	0.0658	0.2440	0.8231	2.0600e-003	0.1418	3.7400e-003	0.1456	0.0381	3.4500e-003	0.0415	0.0000	153.1814	153.1814	4.7900e-003	0.0000	153.2820

3.6 Architectural Coating - 2017

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	0.1463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8300e-003	0.0120	0.0103	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	1.4043	1.4043	1.5000e-004	0.0000	1.4074
Total	0.1481	0.0120	0.0103	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	1.4043	1.4043	1.5000e-004	0.0000	1.4074

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	4.5000e-004	5.7000e-004	5.8100e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0585	1.0585	5.0000e-005	0.0000	1.0595
Total	4.5000e-004	5.7000e-004	5.8100e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0585	1.0585	5.0000e-005	0.0000	1.0595

3.6 Architectural Coating - 2017

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	0.1463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8300e-003	0.0120	0.0103	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	1.4043	1.4043	1.5000e-004	0.0000	1.4074
Total	0.1481	0.0120	0.0103	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	1.4043	1.4043	1.5000e-004	0.0000	1.4074

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	4.5000e-004	5.7000e-004	5.8100e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0585	1.0585	5.0000e-005	0.0000	1.0595
Total	4.5000e-004	5.7000e-004	5.8100e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0585	1.0585	5.0000e-005	0.0000	1.0595

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.0449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.2297	0.2123	3.4000e-004		0.0172	0.0172		0.0172	0.0172	0.0000	29.2348	29.2348	2.7800e-003	0.0000	29.2931
Total	3.0791	0.2297	0.2123	3.4000e-004		0.0172	0.0172		0.0172	0.0172	0.0000	29.2348	29.2348	2.7800e-003	0.0000	29.2931

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	8.3300e-003	0.0106	0.1071	3.1000e-004	0.0261	1.7000e-004	0.0263	6.9400e-003	1.6000e-004	7.1000e-003	0.0000	21.1999	21.1999	9.1000e-004	0.0000	21.2190
Total	8.3300e-003	0.0106	0.1071	3.1000e-004	0.0261	1.7000e-004	0.0263	6.9400e-003	1.6000e-004	7.1000e-003	0.0000	21.1999	21.1999	9.1000e-004	0.0000	21.2190

3.6 Architectural Coating - 2018

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	3.0449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.2297	0.2123	3.4000e-004		0.0172	0.0172		0.0172	0.0172	0.0000	29.2348	29.2348	2.7800e-003	0.0000	29.2931
Total	3.0791	0.2297	0.2123	3.4000e-004		0.0172	0.0172		0.0172	0.0172	0.0000	29.2348	29.2348	2.7800e-003	0.0000	29.2931

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	8.3300e-003	0.0106	0.1071	3.1000e-004	0.0261	1.7000e-004	0.0263	6.9400e-003	1.6000e-004	7.1000e-003	0.0000	21.1999	21.1999	9.1000e-004	0.0000	21.2190
Total	8.3300e-003	0.0106	0.1071	3.1000e-004	0.0261	1.7000e-004	0.0263	6.9400e-003	1.6000e-004	7.1000e-003	0.0000	21.1999	21.1999	9.1000e-004	0.0000	21.2190

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.8196	2.2682	8.4715	0.0193	1.2665	0.0296	1.2961	0.3396	0.0272	0.3669	0.0000	1,456.6999	1,456.6999	0.0493	0.0000	1,457.7347
Unmitigated	0.8543	2.5193	9.1746	0.0218	1.4360	0.0333	1.4692	0.3851	0.0306	0.4157	0.0000	1,645.0341	1,645.0341	0.0551	0.0000	1,646.1911

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,356.60	1,356.60	1,356.60	3,886,038	3,427,486
Total	1,356.60	1,356.60	1,356.60	3,886,038	3,427,486

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.435886	0.064156	0.189696	0.169955	0.064376	0.008633	0.013055	0.038716	0.001733	0.001067	0.008413	0.000541	0.003772

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	142.1673	142.1673	9.9400e-003	2.0600e-003	143.0133
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	145.5090	145.5090	0.0102	2.1000e-003	146.3749
NaturalGas Mitigated	0.0119	0.1015	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	117.5608	117.5608	2.2500e-003	2.1600e-003	118.2762
NaturalGas Unmitigated	0.0149	0.1275	0.0543	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.6831	147.6831	2.8300e-003	2.7100e-003	148.5819

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					
Apartments Low Rise	2.76748e+006	0.0149	0.1275	0.0543	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.6831	147.6831	2.8300e-003	2.7100e-003	148.5819
Total		0.0149	0.1275	0.0543	8.1000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	147.6831	147.6831	2.8300e-003	2.7100e-003	148.5819

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					
Apartments Low Rise	2.20301e+006	0.0119	0.1015	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	117.5608	117.5608	2.2500e-003	2.1600e-003	118.2762
Total		0.0119	0.1015	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003	0.0000	117.5608	117.5608	2.2500e-003	2.1600e-003	118.2762

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	773217	145.5090	0.0102	2.1000e-003	146.3749
Total		145.5090	0.0102	2.1000e-003	146.3749

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	755460	142.1673	9.9400e-003	2.0600e-003	143.0133
Total		142.1673	9.9400e-003	2.0600e-003	143.0133

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

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.9264	0.0177	1.5262	8.0000e-005		0.0184	0.0184		0.0183	0.0183	0.0000	147.0868	147.0868	5.2200e-003	2.6500e-003	148.0184
Unmitigated	13.9631	0.1914	17.2939	6.2400e-003		2.2237	2.2237		2.2236	2.2236	210.7234	90.8486	301.5720	0.1969	0.0166	310.8454

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	0.3191					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7967					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	12.8002	0.1737	15.7685	6.1600e-003		2.2154	2.2154		2.2153	2.2153	210.7234	88.3743	299.0977	0.1945	0.0166	308.3196
Landscaping	0.0470	0.0177	1.5254	8.0000e-005		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003	0.0000	2.4743	2.4743	2.4500e-003	0.0000	2.5258
Total	13.9631	0.1914	17.2939	6.2400e-003		2.2237	2.2237		2.2236	2.2236	210.7234	90.8486	301.5720	0.1969	0.0166	310.8454

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0146	0.0000	8.0000e-004	0.0000		0.0101	0.0101		9.9900e-003	9.9900e-003	0.0000	144.6125	144.6125	2.7700e-003	2.6500e-003	145.4926
Landscaping	0.0470	0.0177	1.5254	8.0000e-005		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003	0.0000	2.4743	2.4743	2.4500e-003	0.0000	2.5258
Total	0.9264	0.0177	1.5262	8.0000e-005		0.0184	0.0184		0.0183	0.0183	0.0000	147.0868	147.0868	5.2200e-003	2.6500e-003	148.0184

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.2702	0.4344	0.0105	35.6422
Unmitigated	23.2702	0.4344	0.0105	35.6489

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	13.2914 / 8.37937	23.2702	0.4344	0.0105	35.6489
Total		23.2702	0.4344	0.0105	35.6489

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	13.2914 / 8.37937	23.2702	0.4344	0.0105	35.6422
Total		23.2702	0.4344	0.0105	35.6422

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.0487	1.1257	0.0000	42.6893
Unmitigated	19.0487	1.1257	0.0000	42.6893

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	93.84	19.0487	1.1257	0.0000	42.6893
Total		19.0487	1.1257	0.0000	42.6893

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	93.84	19.0487	1.1257	0.0000	42.6893
Total		19.0487	1.1257	0.0000	42.6893

9.0 Operational Offroad

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

Rocklin Gateway
Placer County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	204.00	Dwelling Unit	7.00	204,000.00	583

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	414.88	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity adjusted for PG&E progress towards RPS Standards

Land Use - Site Plan

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Information from Traffic Study

Mobile Land Use Mitigation -

Area Mitigation - Applicant Information, PCAPCD rules & Regulations

Energy Mitigation - Assumed compliance with 2016 CalGreen Energy Efficiency Standard

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstructionPhase	NumDays	20.00	240.00
tblConstructionPhase	NumDays	230.00	240.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	10.00	88.00
tblConstructionPhase	PhaseEndDate	10/3/2019	11/15/2018
tblConstructionPhase	PhaseStartDate	11/2/2018	12/15/2017
tblGrading	MaterialExported	0.00	500.00
tblGrading	MaterialExported	0.00	500.00
tblLandUse	LotAcreage	12.75	7.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	414.88
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	ST_TR	7.16	6.65
tblVehicleTrips	SU_TR	6.07	6.65
tblVehicleTrips	WD_TR	6.59	6.65

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	30.8522	51.9789	40.2709	0.0530	18.2273	2.7577	20.9850	9.9734	2.5371	12.5105	0.0000	4,859.9118	4,859.9118	1.2328	0.0000	4,885.8013
2018	30.2969	27.4441	27.8919	0.0530	1.5922	1.6804	3.2726	0.4253	1.5881	2.0134	0.0000	4,767.3777	4,767.3777	0.7224	0.0000	4,782.5479
Total	61.1491	79.4230	68.1627	0.1060	19.8195	4.4381	24.2576	10.3987	4.1252	14.5239	0.0000	9,627.2894	9,627.2894	1.9552	0.0000	9,668.3492

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	30.8522	51.9789	40.2709	0.0530	18.2273	2.7577	20.9850	9.9734	2.5371	12.5105	0.0000	4,859.9118	4,859.9118	1.2328	0.0000	4,885.8013
2018	30.2969	27.4441	27.8919	0.0530	1.5922	1.6804	3.2726	0.4253	1.5881	2.0134	0.0000	4,767.3777	4,767.3777	0.7224	0.0000	4,782.5479
Total	61.1491	79.4230	68.1627	0.1060	19.8195	4.4381	24.2576	10.3987	4.1252	14.5239	0.0000	9,627.2894	9,627.2894	1.9552	0.0000	9,668.3492

[illegible]

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	318.8373	4.4325	401.5469	0.1511		54.1261	54.1261		54.1246	54.1246	5,665,433 1	2,406.304 7	8,071.737 7	5.2583	0.4456	8,320.306 8
Energy	0.0818	0.6988	0.2973	4.4600e- 003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436
Mobile	5.1333	12.9042	50.5498	0.1290	8.2476	0.1827	8.4303	2.2035	0.1682	2.3717		10,668.08 00	10,668.08 00	0.3339		10,675.09 18
Total	324.0524	18.0354	452.3940	0.2846	8.2476	54.3653	62.6129	2.2035	54.3492	56.5527	5,665,433 1	13,966.39 96	19,631.83 26	5.6093	0.4620	19,892.84 21

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.6175	0.1967	16.9687	8.9000e- 004		0.3388	0.3388		0.3362	0.3362	0.0000	3,918.304 7	3,918.304 7	0.1046	0.0713	3,942.597 1
Energy	0.0651	0.5562	0.2367	3.5500e- 003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956
Mobile	4.9370	11.6254	46.0607	0.1143	7.2744	0.1624	7.4368	1.9435	0.1495	2.0930		9,444.926 9	9,444.926 9	0.2986		9,451.197 6
Total	10.6197	12.3783	63.2661	0.1187	7.2744	0.5461	7.8205	1.9435	0.5307	2.4742	0.0000	14,073.30 58	14,073.30 58	0.4168	0.0843	14,108.19 03

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	96.72	31.37	86.02	58.30	11.80	99.00	87.51	11.80	99.02	95.63	100.00	-0.77	28.31	92.57	81.75	29.08

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/3/2017	11/1/2017	5	88	
2	Grading	Grading	11/2/2017	11/21/2017	5	14	
3	Paving	Paving	11/22/2017	11/30/2017	5	7	
4	Building Construction	Building Construction	12/1/2017	11/1/2018	5	240	
5	Architectural Coating	Architectural Coating	12/15/2017	11/15/2018	5	240	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7

Acres of Paving: 0

Residential Indoor: 413,100; Residential Outdoor: 137,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	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
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
Site Preparation	7	18.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	63.00	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
Building Construction	9	147.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0669	0.0000	18.0669	9.9308	0.0000	9.9308			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	4.8382	51.7535	39.3970	0.0391	18.0669	2.7542	20.8211	9.9308	2.5339	12.4647		4,003.0859	4,003.0859	1.2265		4,028.8432

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0144	0.1684	0.1344	5.4000e-004	0.0125	2.5800e-003	0.0151	3.4200e-003	2.3700e-003	5.7900e-003		53.0970	53.0970	3.6000e-004		53.1046
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0571	0.7394	1.8400e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		145.2794	145.2794	5.9300e-003		145.4040
Total	0.0750	0.2254	0.8738	2.3800e-003	0.1604	3.5300e-003	0.1639	0.0426	3.2400e-003	0.0459		198.3764	198.3764	6.2900e-003		198.5086

3.2 Site Preparation - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0669	0.0000	18.0669	9.9308	0.0000	9.9308			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	4.8382	51.7535	39.3970	0.0391	18.0669	2.7542	20.8211	9.9308	2.5339	12.4647	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0144	0.1684	0.1344	5.4000e-004	0.0125	2.5800e-003	0.0151	3.4200e-003	2.3700e-003	5.7900e-003		53.0970	53.0970	3.6000e-004		53.1046
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0606	0.0571	0.7394	1.8400e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		145.2794	145.2794	5.9300e-003		145.4040
Total	0.0750	0.2254	0.8738	2.3800e-003	0.1604	3.5300e-003	0.1639	0.0426	3.2400e-003	0.0459		198.3764	198.3764	6.2900e-003		198.5086

3.3 Grading - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5564	0.0000	6.5564	3.3681	0.0000	3.3681			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	3.4555	35.9825	25.3812	0.0297	6.5564	2.0388	8.5952	3.3681	1.8757	5.2438		3,043.6667	3,043.6667	0.9326		3,063.2507

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0906	1.0582	0.8450	3.3600e-003	0.0785	0.0162	0.0947	0.0215	0.0149	0.0364		333.7523	333.7523	2.2900e-003		333.8003
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0505	0.0476	0.6162	1.5300e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		121.0662	121.0662	4.9400e-003		121.1700
Total	0.1411	1.1058	1.4611	4.8900e-003	0.2017	0.0170	0.2187	0.0542	0.0156	0.0698		454.8185	454.8185	7.2300e-003		454.9704

3.3 Grading - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5564	0.0000	6.5564	3.3681	0.0000	3.3681			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	3.4555	35.9825	25.3812	0.0297	6.5564	2.0388	8.5952	3.3681	1.8757	5.2438	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0906	1.0582	0.8450	3.3600e-003	0.0785	0.0162	0.0947	0.0215	0.0149	0.0364		333.7523	333.7523	2.2900e-003		333.8003
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0505	0.0476	0.6162	1.5300e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		121.0662	121.0662	4.9400e-003		121.1700
Total	0.1411	1.1058	1.4611	4.8900e-003	0.2017	0.0170	0.2187	0.0542	0.0156	0.0698		454.8185	454.8185	7.2300e-003		454.9704

3.4 Paving - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0505	0.0476	0.6162	1.5300e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		121.0662	121.0662	4.9400e-003		121.1700
Total	0.0505	0.0476	0.6162	1.5300e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		121.0662	121.0662	4.9400e-003		121.1700

3.4 Paving - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0505	0.0476	0.6162	1.5300e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		121.0662	121.0662	4.9400e-003		121.1700
Total	0.0505	0.0476	0.6162	1.5300e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		121.0662	121.0662	4.9400e-003		121.1700

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2319	1.8453	2.2548	5.2500e-003	0.1464	0.0295	0.1759	0.0418	0.0271	0.0689		518.1484	518.1484	3.9100e-003		518.2305
Worker	0.4947	0.4660	6.0383	0.0150	1.2076	7.7400e-003	1.2153	0.3203	7.1200e-003	0.3274		1,186.4487	1,186.4487	0.0485		1,187.4663
Total	0.7266	2.3113	8.2931	0.0203	1.3540	0.0372	1.3912	0.3621	0.0342	0.3964		1,704.5971	1,704.5971	0.0524		1,705.6968

3.5 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2319	1.8453	2.2548	5.2500e-003	0.1464	0.0295	0.1759	0.0418	0.0271	0.0689		518.1484	518.1484	3.9100e-003		518.2305
Worker	0.4947	0.4660	6.0383	0.0150	1.2076	7.7400e-003	1.2153	0.3203	7.1200e-003	0.3274		1,186.4487	1,186.4487	0.0485		1,187.4663
Total	0.7266	2.3113	8.2931	0.0203	1.3540	0.0372	1.3912	0.3621	0.0342	0.3964		1,704.5971	1,704.5971	0.0524		1,705.6968

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2091	1.6776	2.0496	5.2300e-003	0.1464	0.0265	0.1729	0.0418	0.0243	0.0662		509.1256	509.1256	3.7600e-003		509.2045
Worker	0.4403	0.4176	5.3917	0.0150	1.2076	7.6000e-003	1.2152	0.3203	7.0200e-003	0.3273		1,141.6426	1,141.6426	0.0444		1,142.5755
Total	0.6494	2.0952	7.4413	0.0203	1.3540	0.0341	1.3880	0.3621	0.0314	0.3935		1,650.7682	1,650.7682	0.0482		1,651.7800

3.5 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2091	1.6776	2.0496	5.2300e-003	0.1464	0.0265	0.1729	0.0418	0.0243	0.0662		509.1256	509.1256	3.7600e-003		509.2045
Worker	0.4403	0.4176	5.3917	0.0150	1.2076	7.6000e-003	1.2152	0.3203	7.0200e-003	0.3273		1,141.6426	1,141.6426	0.0444		1,142.5755
Total	0.6494	2.0952	7.4413	0.0203	1.3540	0.0341	1.3880	0.3621	0.0314	0.3935		1,650.7682	1,650.7682	0.0482		1,651.7800

3.6 Architectural Coating - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	26.9256	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0976	0.0919	1.1912	2.9600e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		234.0613	234.0613	9.5600e-003		234.2621
Total	0.0976	0.0919	1.1912	2.9600e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		234.0613	234.0613	9.5600e-003		234.2621

3.6 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	26.9256	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0976	0.0919	1.1912	2.9600e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		234.0613	234.0613	9.5600e-003		234.2621
Total	0.0976	0.0919	1.1912	2.9600e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		234.0613	234.0613	9.5600e-003		234.2621

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	26.8919	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0869	0.0824	1.0637	2.9600e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		225.2220	225.2220	8.7600e-003		225.4061
Total	0.0869	0.0824	1.0637	2.9600e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		225.2220	225.2220	8.7600e-003		225.4061

3.6 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	26.8919	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0869	0.0824	1.0637	2.9600e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		225.2220	225.2220	8.7600e-003		225.4061
Total	0.0869	0.0824	1.0637	2.9600e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		225.2220	225.2220	8.7600e-003		225.4061

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.9370	11.6254	46.0607	0.1143	7.2744	0.1624	7.4368	1.9435	0.1495	2.0930		9,444.9269	9,444.9269	0.2986		9,451.1976
Unmitigated	5.1333	12.9042	50.5498	0.1290	8.2476	0.1827	8.4303	2.2035	0.1682	2.3717		10,668.0800	10,668.0800	0.3339		10,675.0918

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,356.60	1,356.60	1356.60	3,886,038	3,427,486
Total	1,356.60	1,356.60	1,356.60	3,886,038	3,427,486

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.435886	0.064156	0.189696	0.169955	0.064376	0.008633	0.013055	0.038716	0.001733	0.001067	0.008413	0.000541	0.003772

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956
NaturalGas Unmitigated	0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	7582.13	0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436
Total		0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	6.03563	0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956
Total		0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956

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

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.6175	0.1967	16.9687	8.9000e-004		0.3388	0.3388		0.3362	0.3362	0.0000	3,918.3047	3,918.3047	0.1046	0.0713	3,942.5971
Unmitigated	318.8373	4.4325	401.5469	0.1511		54.1261	54.1261		54.1246	54.1246	5,665.4331	2,406.3047	8,071.7377	5.2583	0.4456	8,320.3068

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.7486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.3656					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	312.2006	4.2357	384.5976	0.1502		54.0336	54.0336		54.0320	54.0320	5,665.4331	2,376.0000	8,041.4331	5.2283	0.4456	8,289.3714
Landscaping	0.5225	0.1967	16.9493	8.9000e-004		0.0925	0.0925		0.0925	0.0925		30.3047	30.3047	0.0300		30.9354
Total	318.8373	4.4325	401.5469	0.1511		54.1261	54.1261		54.1246	54.1246	5,665.4331	2,406.3047	8,071.7377	5.2583	0.4456	8,320.3068

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3564	2.0000e-005	0.0194	0.0000		0.2462	0.2462		0.2437	0.2437	0.0000	3,888.0000	3,888.0000	0.0745	0.0713	3,911.6617
Landscaping	0.5225	0.1967	16.9493	8.9000e-004		0.0925	0.0925		0.0925	0.0925		30.3047	30.3047	0.0300		30.9354
Total	5.6175	0.1968	16.9687	8.9000e-004		0.3388	0.3388		0.3362	0.3362	0.0000	3,918.3047	3,918.3047	0.1046	0.0713	3,942.5971

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Rocklin Gateway
Placer County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	204.00	Dwelling Unit	7.00	204,000.00	583

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	414.88	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity adjusted for PG&E progress towards RPS Standards

Land Use - Site Plan

Construction Phase - Applicant Information

Grading - Applicant Information

Vehicle Trips - Information from Traffic Study

Mobile Land Use Mitigation -

Area Mitigation - Applicant Information, PCAPCD rules & Regulations

Energy Mitigation - Assumed compliance with 2016 CalGreen Energy Efficiency Standard

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstructionPhase	NumDays	20.00	240.00
tblConstructionPhase	NumDays	230.00	240.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	20.00	7.00
tblConstructionPhase	NumDays	10.00	88.00
tblConstructionPhase	PhaseEndDate	10/3/2019	11/15/2018
tblConstructionPhase	PhaseStartDate	11/2/2018	12/15/2017
tblGrading	MaterialExported	0.00	500.00
tblGrading	MaterialExported	0.00	500.00
tblLandUse	LotAcreage	12.75	7.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	414.88
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	ST_TR	7.16	6.65
tblVehicleTrips	SU_TR	6.07	6.65
tblVehicleTrips	WD_TR	6.59	6.65

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	30.8422	52.0043	40.2750	0.0509	18.2273	2.7578	20.9850	9.9734	2.5371	12.5106	0.0000	4,687.8313	4,687.8313	1.2328	0.0000	4,713.7209
2018	30.2783	27.6691	28.6862	0.0508	1.5922	1.6807	3.2729	0.4253	1.5884	2.0137	0.0000	4,601.4389	4,601.4389	0.7225	0.0000	4,616.6114
Total	61.1206	79.6734	68.9612	0.1017	19.8195	4.4384	24.2579	10.3987	4.1255	14.5242	0.0000	9,289.2701	9,289.2701	1.9553	0.0000	9,330.3323

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	30.8422	52.0043	40.2750	0.0509	18.2273	2.7578	20.9850	9.9734	2.5371	12.5106	0.0000	4,687.8313	4,687.8313	1.2328	0.0000	4,713.7209
2018	30.2783	27.6691	28.6862	0.0508	1.5922	1.6807	3.2729	0.4253	1.5884	2.0137	0.0000	4,601.4389	4,601.4389	0.7225	0.0000	4,616.6114
Total	61.1206	79.6734	68.9612	0.1017	19.8195	4.4384	24.2579	10.3987	4.1255	14.5242	0.0000	9,289.2701	9,289.2701	1.9553	0.0000	9,330.3323

[illegible]

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	318.8373	4.4325	401.5469	0.1511		54.1261	54.1261		54.1246	54.1246	5,665,433 1	2,406.304 7	8,071.737 7	5.2583	0.4456	8,320.306 8
Energy	0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436
Mobile	4.9371	14.4042	55.3606	0.1178	8.2476	0.1835	8.4311	2.2035	0.1690	2.3725		9,786.342 2	9,786.342 2	0.3344		9,793.363 4
Total	323.8561	19.5354	457.2048	0.2734	8.2476	54.3661	62.6138	2.2035	54.3500	56.5535	5,665,433 1	13,084.66 17	18,750.09 48	5.6097	0.4620	19,011.11 38

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.6175	0.1967	16.9687	8.9000e-004		0.3388	0.3388		0.3362	0.3362	0.0000	3,918.304 7	3,918.304 7	0.1046	0.0713	3,942.597 1
Energy	0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956
Mobile	4.7451	12.9671	51.5386	0.1043	7.2744	0.1632	7.4377	1.9435	0.1503	2.0938		8,665.728 7	8,665.728 7	0.2991		8,672.008 8
Total	10.4277	13.7201	68.7440	0.1088	7.2744	0.5470	7.8214	1.9435	0.5314	2.4749	0.0000	13,294.10 75	13,294.10 75	0.4172	0.0843	13,329.00 15

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	96.78	29.77	84.96	60.21	11.80	98.99	87.51	11.80	99.02	95.62	100.00	-1.60	29.10	92.56	81.75	29.89

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/3/2017	11/1/2017	5	88	
2	Grading	Grading	11/2/2017	11/21/2017	5	14	
3	Paving	Paving	11/22/2017	11/30/2017	5	7	
4	Building Construction	Building Construction	12/1/2017	11/1/2018	5	240	
5	Architectural Coating	Architectural Coating	12/15/2017	11/15/2018	5	240	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7

Acres of Paving: 0

Residential Indoor: 413,100; Residential Outdoor: 137,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	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
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
Site Preparation	7	18.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	63.00	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
Building Construction	9	147.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0669	0.0000	18.0669	9.9308	0.0000	9.9308			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339		4,003.0859	4,003.0859	1.2265		4,028.8432
Total	4.8382	51.7535	39.3970	0.0391	18.0669	2.7542	20.8211	9.9308	2.5339	12.4647		4,003.0859	4,003.0859	1.2265		4,028.8432

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0172	0.1797	0.2025	5.3000e-004	0.0125	2.5900e-003	0.0151	3.4200e-003	2.3800e-003	5.8000e-003		52.9725	52.9725	3.7000e-004		52.9802
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0712	0.6754	1.6200e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		128.0841	128.0841	5.9300e-003		128.2087
Total	0.0707	0.2509	0.8780	2.1500e-003	0.1604	3.5400e-003	0.1639	0.0426	3.2500e-003	0.0459		181.0566	181.0566	6.3000e-003		181.1890

3.2 Site Preparation - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0669	0.0000	18.0669	9.9308	0.0000	9.9308			0.0000			0.0000
Off-Road	4.8382	51.7535	39.3970	0.0391		2.7542	2.7542		2.5339	2.5339	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432
Total	4.8382	51.7535	39.3970	0.0391	18.0669	2.7542	20.8211	9.9308	2.5339	12.4647	0.0000	4,003.0859	4,003.0859	1.2265		4,028.8432

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0172	0.1797	0.2025	5.3000e-004	0.0125	2.5900e-003	0.0151	3.4200e-003	2.3800e-003	5.8000e-003		52.9725	52.9725	3.7000e-004		52.9802
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0712	0.6754	1.6200e-003	0.1479	9.5000e-004	0.1488	0.0392	8.7000e-004	0.0401		128.0841	128.0841	5.9300e-003		128.2087
Total	0.0707	0.2509	0.8780	2.1500e-003	0.1604	3.5400e-003	0.1639	0.0426	3.2500e-003	0.0459		181.0566	181.0566	6.3000e-003		181.1890

3.3 Grading - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5564	0.0000	6.5564	3.3681	0.0000	3.3681			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757		3,043.6667	3,043.6667	0.9326		3,063.2507
Total	3.4555	35.9825	25.3812	0.0297	6.5564	2.0388	8.5952	3.3681	1.8757	5.2438		3,043.6667	3,043.6667	0.9326		3,063.2507

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1079	1.1294	1.2730	3.3600e-003	0.0785	0.0163	0.0947	0.0215	0.0150	0.0365		332.9698	332.9698	2.3200e-003		333.0185
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	0.0593	0.5629	1.3500e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		106.7368	106.7368	4.9400e-003		106.8406
Total	0.1525	1.1887	1.8359	4.7100e-003	0.2017	0.0171	0.2188	0.0542	0.0157	0.0699		439.7066	439.7066	7.2600e-003		439.8592

3.3 Grading - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5564	0.0000	6.5564	3.3681	0.0000	3.3681			0.0000			0.0000
Off-Road	3.4555	35.9825	25.3812	0.0297		2.0388	2.0388		1.8757	1.8757	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507
Total	3.4555	35.9825	25.3812	0.0297	6.5564	2.0388	8.5952	3.3681	1.8757	5.2438	0.0000	3,043.6667	3,043.6667	0.9326		3,063.2507

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1079	1.1294	1.2730	3.3600e-003	0.0785	0.0163	0.0947	0.0215	0.0150	0.0365		332.9698	332.9698	2.3200e-003		333.0185
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	0.0593	0.5629	1.3500e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		106.7368	106.7368	4.9400e-003		106.8406
Total	0.1525	1.1887	1.8359	4.7100e-003	0.2017	0.0171	0.2188	0.0542	0.0157	0.0699		439.7066	439.7066	7.2600e-003		439.8592

3.4 Paving - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	0.0593	0.5629	1.3500e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		106.7368	106.7368	4.9400e-003		106.8406
Total	0.0446	0.0593	0.5629	1.3500e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		106.7368	106.7368	4.9400e-003		106.8406

3.4 Paving - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.0588	2,281.0588	0.6989		2,295.7360

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0446	0.0593	0.5629	1.3500e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		106.7368	106.7368	4.9400e-003		106.8406
Total	0.0446	0.0593	0.5629	1.3500e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		106.7368	106.7368	4.9400e-003		106.8406

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2908	1.9596	3.6888	5.2300e-003	0.1464	0.0299	0.1763	0.0418	0.0275	0.0693		514.1997	514.1997	4.0200e-003		514.2842
Worker	0.4372	0.5812	5.5160	0.0132	1.2076	7.7400e-003	1.2153	0.3203	7.1200e-003	0.3274		1,046.0204	1,046.0204	0.0485		1,047.0380
Total	0.7280	2.5408	9.2048	0.0185	1.3540	0.0376	1.3916	0.3621	0.0346	0.3967		1,560.2201	1,560.2201	0.0525		1,561.3221

3.5 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2908	1.9596	3.6888	5.2300e-003	0.1464	0.0299	0.1763	0.0418	0.0275	0.0693		514.1997	514.1997	4.0200e-003		514.2842
Worker	0.4372	0.5812	5.5160	0.0132	1.2076	7.7400e-003	1.2153	0.3203	7.1200e-003	0.3274		1,046.0204	1,046.0204	0.0485		1,047.0380
Total	0.7280	2.5408	9.2048	0.0185	1.3540	0.0376	1.3916	0.3621	0.0346	0.3967		1,560.2201	1,560.2201	0.0525		1,561.3221

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048		2,609.9390	2,609.9390	0.6387		2,623.3517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2586	1.7798	3.4836	5.2200e-003	0.1464	0.0268	0.1732	0.0418	0.0246	0.0664		505.2333	505.2333	3.8700e-003		505.3144
Worker	0.3835	0.5201	4.8574	0.0132	1.2076	7.6000e-003	1.2152	0.3203	7.0200e-003	0.3273		1,006.2970	1,006.2970	0.0444		1,007.2299
Total	0.6421	2.2999	8.3411	0.0184	1.3540	0.0344	1.3883	0.3621	0.0316	0.3938		1,511.5302	1,511.5302	0.0483		1,512.5443

3.5 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517
Total	2.6687	23.2608	17.5327	0.0268		1.4943	1.4943		1.4048	1.4048	0.0000	2,609.9389	2,609.9389	0.6387		2,623.3517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2586	1.7798	3.4836	5.2200e-003	0.1464	0.0268	0.1732	0.0418	0.0246	0.0664		505.2333	505.2333	3.8700e-003		505.3144
Worker	0.3835	0.5201	4.8574	0.0132	1.2076	7.6000e-003	1.2152	0.3203	7.0200e-003	0.3273		1,006.2970	1,006.2970	0.0444		1,007.2299
Total	0.6421	2.2999	8.3411	0.0184	1.3540	0.0344	1.3883	0.3621	0.0316	0.3938		1,511.5302	1,511.5302	0.0483		1,512.5443

3.6 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	26.9256	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0863	0.1147	1.0882	2.6100e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		206.3578	206.3578	9.5600e-003		206.5585
Total	0.0863	0.1147	1.0882	2.6100e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		206.3578	206.3578	9.5600e-003		206.5585

3.6 Architectural Coating - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	26.9256	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0863	0.1147	1.0882	2.6100e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		206.3578	206.3578	9.5600e-003		206.5585
Total	0.0863	0.1147	1.0882	2.6100e-003	0.2382	1.5300e-003	0.2398	0.0632	1.4100e-003	0.0646		206.3578	206.3578	9.5600e-003		206.5585

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102
Total	26.8919	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.0102

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0757	0.1026	0.9583	2.6100e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		198.5212	198.5212	8.7600e-003		198.7052
Total	0.0757	0.1026	0.9583	2.6100e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		198.5212	198.5212	8.7600e-003		198.7052

3.6 Architectural Coating - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.5933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102
Total	26.8919	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.0102

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0757	0.1026	0.9583	2.6100e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		198.5212	198.5212	8.7600e-003		198.7052
Total	0.0757	0.1026	0.9583	2.6100e-003	0.2382	1.5000e-003	0.2397	0.0632	1.3900e-003	0.0646		198.5212	198.5212	8.7600e-003		198.7052

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.7451	12.9671	51.5386	0.1043	7.2744	0.1632	7.4377	1.9435	0.1503	2.0938		8,665.7287	8,665.7287	0.2991		8,672.0088
Unmitigated	4.9371	14.4042	55.3606	0.1178	8.2476	0.1835	8.4311	2.2035	0.1690	2.3725		9,786.3422	9,786.3422	0.3344		9,793.3634

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,356.60	1,356.60	1356.60	3,886,038	3,427,486
Total	1,356.60	1,356.60	1,356.60	3,886,038	3,427,486

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.435886	0.064156	0.189696	0.169955	0.064376	0.008633	0.013055	0.038716	0.001733	0.001067	0.008413	0.000541	0.003772

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956
NaturalGas Unmitigated	0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	7582.13	0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436
Total		0.0818	0.6988	0.2973	4.4600e-003		0.0565	0.0565		0.0565	0.0565		892.0149	892.0149	0.0171	0.0164	897.4436

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	6.03563	0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956
Total		0.0651	0.5562	0.2367	3.5500e-003		0.0450	0.0450		0.0450	0.0450		710.0742	710.0742	0.0136	0.0130	714.3956

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

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.6175	0.1967	16.9687	8.9000e-004		0.3388	0.3388		0.3362	0.3362	0.0000	3,918.3047	3,918.3047	0.1046	0.0713	3,942.5971
Unmitigated	318.8373	4.4325	401.5469	0.1511		54.1261	54.1261		54.1246	54.1246	5,665.4331	2,406.3047	8,071.7377	5.2583	0.4456	8,320.3068

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.7486					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.3656					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	312.2006	4.2357	384.5976	0.1502		54.0336	54.0336		54.0320	54.0320	5,665.4331	2,376.0000	8,041.4331	5.2283	0.4456	8,289.3714
Landscaping	0.5225	0.1967	16.9493	8.9000e-004		0.0925	0.0925		0.0925	0.0925		30.3047	30.3047	0.0300		30.9354
Total	318.8373	4.4325	401.5469	0.1511		54.1261	54.1261		54.1246	54.1246	5,665.4331	2,406.3047	8,071.7377	5.2583	0.4456	8,320.3068

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6994					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.0392					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3564	2.0000e-005	0.0194	0.0000		0.2462	0.2462		0.2437	0.2437	0.0000	3,888.0000	3,888.0000	0.0745	0.0713	3,911.6617
Landscaping	0.5225	0.1967	16.9493	8.9000e-004		0.0925	0.0925		0.0925	0.0925		30.3047	30.3047	0.0300		30.9354
Total	5.6175	0.1968	16.9687	8.9000e-004		0.3388	0.3388		0.3362	0.3362	0.0000	3,918.3047	3,918.3047	0.1046	0.0713	3,942.5971

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Rocklin Gateway
Placer County APCD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	10	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	3.60200E-002	2.41680E-001	2.22580E-001	3.60000E-004	1.81900E-002	1.81900E-002	0.00000E+000	3.06391E+001	3.06391E+001	2.93000E-003	0.00000E+000	3.07006E+001
Cranes	5.94500E-002	7.10050E-001	2.61720E-001	5.90000E-004	3.08200E-002	2.83600E-002	0.00000E+000	5.41842E+001	5.41842E+001	1.68400E-002	0.00000E+000	5.45379E+001
Excavators	2.54000E-003	2.81200E-002	2.39500E-002	4.00000E-005	1.38000E-003	1.27000E-003	0.00000E+000	3.43717E+000	3.43717E+000	1.05000E-003	0.00000E+000	3.45929E+000
Forklifts	6.51600E-002	5.74750E-001	4.37240E-001	5.50000E-004	4.60200E-002	4.23400E-002	0.00000E+000	5.02955E+001	5.02955E+001	1.56400E-002	0.00000E+000	5.06238E+001
Generator Sets	6.13300E-002	4.97290E-001	4.49940E-001	7.90000E-004	3.18500E-002	3.18500E-002	0.00000E+000	6.78249E+001	6.78249E+001	4.95000E-003	0.00000E+000	6.79288E+001
Graders	6.67000E-003	6.74900E-002	3.38700E-002	4.00000E-005	3.79000E-003	3.49000E-003	0.00000E+000	4.04896E+000	4.04896E+000	1.24000E-003	0.00000E+000	4.07501E+000
Pavers	2.52000E-003	2.82200E-002	1.98500E-002	3.00000E-005	1.39000E-003	1.28000E-003	0.00000E+000	2.93393E+000	2.93393E+000	9.00000E-004	0.00000E+000	2.95280E+000
Paving Equipment	1.98000E-003	2.25100E-002	1.77600E-002	3.00000E-005	1.12000E-003	1.03000E-003	0.00000E+000	2.60585E+000	2.60585E+000	8.00000E-004	0.00000E+000	2.62262E+000
Rollers	2.18000E-003	2.03100E-002	1.39400E-002	2.00000E-005	1.47000E-003	1.35000E-003	0.00000E+000	1.70292E+000	1.70292E+000	5.20000E-004	0.00000E+000	1.71388E+000
Rubber Tired Dozers	1.65460E-001	1.83378E+000	1.38174E+000	1.24000E-003	8.51900E-002	7.83700E-002	0.00000E+000	1.14751E+002	1.14751E+002	3.51600E-002	0.00000E+000	1.15489E+002
Tractors/Loaders/ Backhoes	1.47630E-001	1.43942E+000	1.20923E+000	1.59000E-003	1.04960E-001	9.65600E-002	0.00000E+000	1.46396E+002	1.46396E+002	4.52600E-002	0.00000E+000	1.47346E+002
Welders	5.36300E-002	2.02450E-001	2.23650E-001	3.10000E-004	1.37700E-002	1.37700E-002	0.00000E+000	2.25865E+001	2.25865E+001	4.38000E-003	0.00000E+000	2.26785E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	3.60200E-002	2.41680E-001	2.22580E-001	3.60000E-004	1.81900E-002	1.81900E-002	0.00000E+000	3.06391E+001	3.06391E+001	2.93000E-003	0.00000E+000	3.07005E+001
Cranes	5.94500E-002	7.10050E-001	2.61720E-001	5.90000E-004	3.08200E-002	2.83600E-002	0.00000E+000	5.41841E+001	5.41841E+001	1.68400E-002	0.00000E+000	5.45379E+001
Excavators	2.54000E-003	2.81200E-002	2.39500E-002	4.00000E-005	1.38000E-003	1.27000E-003	0.00000E+000	3.43717E+000	3.43717E+000	1.05000E-003	0.00000E+000	3.45928E+000
Forklifts	6.51600E-002	5.74750E-001	4.37240E-001	5.50000E-004	4.60200E-002	4.23400E-002	0.00000E+000	5.02954E+001	5.02954E+001	1.56400E-002	0.00000E+000	5.06237E+001
Generator Sets	6.13300E-002	4.97290E-001	4.49940E-001	7.90000E-004	3.18500E-002	3.18500E-002	0.00000E+000	6.78248E+001	6.78248E+001	4.95000E-003	0.00000E+000	6.79287E+001
Graders	6.67000E-003	6.74900E-002	3.38700E-002	4.00000E-005	3.79000E-003	3.49000E-003	0.00000E+000	4.04895E+000	4.04895E+000	1.24000E-003	0.00000E+000	4.07500E+000
Pavers	2.52000E-003	2.82200E-002	1.98500E-002	3.00000E-005	1.39000E-003	1.28000E-003	0.00000E+000	2.93392E+000	2.93392E+000	9.00000E-004	0.00000E+000	2.95280E+000
Paving Equipment	1.98000E-003	2.25100E-002	1.77600E-002	3.00000E-005	1.12000E-003	1.03000E-003	0.00000E+000	2.60585E+000	2.60585E+000	8.00000E-004	0.00000E+000	2.62261E+000
Rollers	2.18000E-003	2.03100E-002	1.39400E-002	2.00000E-005	1.47000E-003	1.35000E-003	0.00000E+000	1.70292E+000	1.70292E+000	5.20000E-004	0.00000E+000	1.71387E+000
Rubber Tired Dozers	1.65460E-001	1.83378E+000	1.38174E+000	1.24000E-003	8.51900E-002	7.83700E-002	0.00000E+000	1.14751E+002	1.14751E+002	3.51600E-002	0.00000E+000	1.15489E+002
Tractors/Loaders/Balckhoes	1.47630E-001	1.43942E+000	1.20923E+000	1.59000E-003	1.04960E-001	9.65600E-002	0.00000E+000	1.46396E+002	1.46396E+002	4.52600E-002	0.00000E+000	1.47346E+002
Welders	5.36300E-002	2.02450E-001	2.23650E-001	3.10000E-004	1.37700E-002	1.37700E-002	0.00000E+000	2.25865E+001	2.25865E+001	4.38000E-003	0.00000E+000	2.26784E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.30552E-006	1.30552E-006	0.00000E+000	0.00000E+000	1.30291E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.29189E-006	1.29189E-006	0.00000E+000	0.00000E+000	1.10015E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.89077E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19295E-006	1.19295E-006	0.00000E+000	0.00000E+000	1.18521E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17951E-006	1.17951E-006	0.00000E+000	0.00000E+000	1.17770E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.46977E-006	2.46977E-006	0.00000E+000	0.00000E+000	2.45398E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.40840E-006	3.40840E-006	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.81298E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	5.83471E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22003E-006	1.22003E-006	0.00000E+000	0.00000E+000	1.12565E-006
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22954E-006	1.22954E-006	0.00000E+000	0.00000E+000	1.15374E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.32823E-006	1.32823E-006	0.00000E+000	0.00000E+000	1.32284E-006

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction		
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction	Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)		

No	Clean Paved Road	% PM Reduction	0.00				
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Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.16	0.04	0.16	0.04	0.00	0.00
Grading	Fugitive Dust	0.05	0.02	0.05	0.02	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.79	0.44	0.79	0.44	0.00	0.00
Site Preparation	Roads	0.01	0.00	0.01	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	7.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	2.30	2.26	1.90	2.30
Hearth	99.89	100.00	99.99	100.00	99.54	99.55	100.00	-63.64	51.65	98.58	84.01	52.81
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	4.06	9.97	7.66	11.45	11.09	11.07	0.00	11.45	11.45	10.56	0.00	11.45
Natural Gas	20.38	20.40	20.38	19.75	20.37	20.37	0.00	20.40	20.40	20.49	20.30	20.40
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.02
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
Yes	Land Use	Increase Transit Accessibility	0.24	0.02		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.10			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00			
No	Neighborhood Enhancements	Implement NEV Network	0.01			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.12			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.12		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
Yes	Use Low VOC Cleaning Supplies	
Yes	Use Low VOC Paint (Residential Interior)	100.00
Yes	Use Low VOC Paint (Residential Exterior)	100.00
Yes	Use Low VOC Paint (Non-residential Interior)	100.00
Yes	Use Low VOC Paint (Non-residential Exterior)	100.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	