

November 27, 2019

Mr. Craig Cristina
Richland Communities
3161 Michelson Drive, Suite 425
Irvine, CA 92612

SUBJECT: APPESETCHE RESIDENTIAL FOCUSED AIR QUALITY AND GREENHOUSE GAS EMISSIONS ASSESSMENT

Dear Mr. Craig Cristina:

Urban Crossroads, Inc. is pleased to submit this Air Quality and Greenhouse Gas Emissions Assessment to Richland Communities (Client) for the proposed Appesetche Residential development (Project), which is on the northeast corner of Mayhew Avenue and Bickmore Avenue in the City of Chino, as shown on Exhibit A.

The purpose of this Assessment is to quantify the air quality and greenhouse gas emissions for the proposed Project and compare it to the findings of the Preserve SP EIR. The Assessment would determine if any potential new impacts would occur.

SUMMARY OF FINDINGS

Results of the Assessment indicate that the proposed Project would not result in any significant impacts with respect to air quality and greenhouse gases. It should be noted that the Project is required to comply with the applicable Preserve SP EIR mitigation measures. The Preserve SP EIR disclosed a NO_x and PM₁₀ significant impact for construction activity and a VOCs, NO_x, CO, and PM₁₀ significant impact for operational activity. As such, the proposed Project would not result in any additional significant impacts from what was already disclosed in the Preserve SP EIR and no further mitigation is required. Furthermore, the Project would comply with the City's CAP and would therefore not result in a significant and cumulatively considerable impact with respect to greenhouse gases.

PROJECT DESCRIPTION

Exhibit B illustrates the preliminary Project site plan. As shown on Exhibit B, the development of the proposed Project is to consist of approximately 166 single family detached residential dwelling units. For the purposes of this analysis, the Project is proposed to be developed in a single phase with an anticipated Opening Year of 2021.

STANDARD REGULATORY REQUIREMENTS/BEST AVAILABLE CONTROL MEASURES (BACMs)

South Coast Air Quality Management District (SCAQMD) Rules that are currently applicable during construction activity for this Project include but are not limited to Rule 403 (Fugitive Dust) (1), Rule 1113 (Architectural Coatings) (2), Rule 445 (Wood Burning Devices). Implementation of these rules are required pursuant to existing law and therefore is considered part of the Project.

EXHIBIT A: LOCATION MAP



EXHIBIT B: SITE PLAN



BACM AQ-1

All applicable measures included in Rule 403, shall be incorporated into Project plans and specifications as implementation of Rule 403, which include but are not limited to (1):

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.

BACM AQ-2

The following measures shall be incorporated into Project plans and specifications as implementation of SCAQMD Rule 1113 (2):

- Only “Low-Volatile Organic Compounds (VOC)” paints (no more than 50 gram/liter of VOC) consistent with SCAQMD Rule 1113 shall be used.

BACM AQ-3

The following measures shall be incorporated into Project plans and specifications as implementation of SCAQMD Rule 445 (3):

- Rule 445 prohibits the use of wood burning stoves and fireplaces in new developments.

CONSTRUCTION AND OPERATIONAL-SOURCE MITIGATION MEASURES

As shown in the analysis below, the Project would not result in an exceedance of any localized or regional construction-source or operational-source emissions thresholds. As such, the Project would not result in any significant impacts and no mitigation measures are required.

CALIFORNIA EMISSIONS ESTIMATOR MODEL™ EMPLOYED TO ESTIMATE AQ EMISSIONS

Land uses such as the Project affect air quality through construction-source emissions.

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod) v2016.3.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (Nitrogen Oxides (NO_x), VOC, Particulate Matter less than 10 microns (PM₁₀), Particulate Matter less than 2.5 microns (PM_{2.5}), Sulfur Oxides (SO_x), and Carbon Monoxide (CO)) and GHG emissions from direct and indirect sources; and

quantify applicable air quality and GHG reductions achieved from mitigation measures. Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational impacts related to the Project. Air quality outputs from the model runs are provided in Attachment A.

AIR QUALITY

REGIONAL EMISSIONS

CONSTRUCTION

The duration of construction activity was based on the Project’s Opening Year in 2021. The number of days of construction are shown on Table 1. Equipment employed for Project construction activities are based on CalEEMod defaults, as shown on Table 2. The Project construction fleet may vary due to specific Project needs at any given time.

Grading Activities

The Project is anticipated to include soil export as a part of Project grading activities. Based on information provided by the Project applicant, the Project is expected require 53,370 cubic yards soil import. For purposes of analysis, the 53,370 cubic yards of import along with a model default hauling trip length of 20 miles has been utilized.

TABLE 1: CONSTRUCTION DURATION

| Phase Name | Days |
|-----------------------|-------------|
| Site Preparation | 10 |
| Grading | 60 |
| Building Construction | 300 |
| Architectural Coating | 100 |
| Paving | 30 |

REGIONAL CONSTRUCTION EMISSIONS SUMMARY

Impacts without Mitigation

The estimated maximum daily construction emissions without mitigation are summarized on Table 3. Detailed construction model outputs are presented in Attachment A. Under the assumed construction modeling scenario discussed above, emissions resulting from the Project construction would not exceed criteria pollutant thresholds established by the SCAQMD for emissions of any criteria pollutant, and accordingly will not 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.

Thus, a less than significant impact would occur for regional Project-related construction-source emissions and no mitigation is required.

It should be noted that the Preserve SP EIR identified a NOx and PM10 significant impact. As such, the Project would not result in any new impacts from what was already disclosed in the Preserve SP EIR.

TABLE 2: CONSTRUCTION EQUIPMENT

| Activity | Equipment | Number | Hours Per Day |
|-----------------------|---------------------------|--------|---------------|
| Site Preparation | Rubber Tired Dozers | 3 | 8 |
| | Crawler Tractors | 4 | 8 |
| Grading | Excavators | 2 | 8 |
| | Graders | 1 | 8 |
| | Rubber Tired Dozers | 1 | 8 |
| | Scrapers | 2 | 8 |
| | Crawler Tractors | 2 | 8 |
| Building Construction | Cranes | 1 | 8 |
| | Forklifts | 3 | 8 |
| | Generator Sets | 1 | 8 |
| | Tractors/Loaders/Backhoes | 3 | 8 |
| | Welders | 1 | 8 |
| Paving | Paving Equipment | 2 | 8 |
| | Rollers | 2 | 8 |
| | Pavers | 2 | 8 |
| Architectural Coating | Air Compressors | 1 | 8 |

TABLE 3: PROJECT CONSTRUCTION EMISSIONS AND REGIONAL THRESHOLDS (WITHOUT MITIGATION)

| Phase | Emissions (lbs/day) | | | | | |
|--------------------------------|---------------------|-----------------|--------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| 2020 | 6.02 | 88.49 | 37.76 | 0.16 | 11.48 | 6.65 |
| 2021 | 22.56 | 33.89 | 36.97 | 0.07 | 2.83 | 1.92 |
| Maximum Daily Emissions | 22.56 | 88.49 | 37.76 | 0.16 | 11.48 | 6.65 |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO |

lbs/day = Pounds Per Day

OPERATIONS

Operational activities associated with the Project would result in emissions of CO, VOCs, NO_x, SO_x, PM₁₀, and PM_{2.5}. Operational related emissions are expected from the following primary sources: area source emissions, energy source emissions, mobile source emissions, and on-site equipment emissions.

Area Source Emissions

Architectural Coatings – Over a period of time, the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod.

Consumer Products – Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within the CalEEMod model.

Landscape Maintenance Equipment – Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity – Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using CalEEMod.

Mobile Source Emissions

Project mobile source air quality emissions are primarily dependent on overall daily vehicle trip generation. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. According to the *Appesetche Residential Traffic Impact Analysis*, prepared by Urban Crossroads, Inc. the Project would generate 1,568 weekday trip-ends per (4).

REGIONAL OPERATIONAL EMISSIONS SUMMARY

Impacts without Mitigation

Table 4 summarizes the Project’s daily regional emissions from on-going operations. Detailed construction model outputs are presented in Attachment A. During operational activity, the Project will not exceed any of the thresholds of significance, and accordingly will not 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. Thus, a less than significant impact would occur for regional Project-related operation-sources emissions, and no mitigation is required.

It should be noted that the Preserve SP EIR identified a VOCs, NOx, CO, and PM10 significant impact. As such, the Project would not result in any new impacts from what was already disclosed in the Preserve SP EIR.

TABLE 4: PROJECT OPERATIONAL EMISSIONS AND REGIONAL THRESHOLDS (WITHOUT MITIGATION)

| Operational Activities – Summer Scenario | Emissions (lbs/day) | | | | | |
|--|---------------------|-----------------|--------------|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| Area Source | 7.17 | 2.91 | 14.90 | 0.01 | 0.30 | 0.30 |
| Energy Source | 0.15 | 1.28 | 0.55 | 8.1e-03 | 0.10 | 0.10 |
| Mobile | 3.60 | 22.85 | 43.13 | 0.16 | 11.65 | 3.19 |
| Total Maximum Daily Emissions | 10.91 | 27.04 | 58.58 | 0.19 | 12.05 | 3.59 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO |
| Operational Activities – Winter Scenario | Emissions (lbs/day) | | | | | |
| | VOC | NO _x | CO | SO _x | PM ₁₀ | PM _{2.5} |
| Area Source | 7.17 | 2.91 | 14.90 | 0.01 | 0.30 | 0.30 |
| Energy Source | 0.15 | 1.28 | 0.55 | 8.1e-03 | 0.10 | 0.10 |
| Mobile | 3.15 | 22.93 | 37.78 | 0.15 | 11.65 | 3.19 |
| Total Maximum Daily Emissions | 10.46 | 27.12 | 53.22 | 0.17 | 12.05 | 3.59 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO |

LOCALIZED EMISSIONS

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (5). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state

ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs). The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4¹. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses (5).

Sensitive Receptors

Receptor locations are off-site locations where individuals may be exposed to emissions from Project activities. This Memorandum analyzes localized construction and operational emissions impacts at the nearest sensitive receptors.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors"; they are also known to be locations where an individual can remain for 24 hours.

Project-related Sensitive Receptors

Sensitive receptors in the Project study area include existing residential uses as illustrated on Exhibit C. As shown, the nearest residential land use is located approximately 189 feet/57 meters from the Project's anticipated construction activity. As such, LSTs at a conservative 50-meter distance have been utilized herein.

LOCALIZED CONSTRUCTION EMISSIONS SUMMARY

Impacts without Mitigation

Table 5 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Outputs from the model runs for construction LSTs are provided in Attachment A. Under the assumed construction modeling scenario (as previously discussed), emissions resulting from the Project construction will not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant, accordingly the Project's construction will not expose sensitive receptors to substantial pollutant concentrations. Thus, a less than significant impact related to sensitive receptors exposure to pollutants concentrations from Project construction would occur and no mitigation is required.

As such, the Project would not result in any additional impacts from what is already disclosed in the Preserve SP EIR. Outputs from the model runs for construction LSTs are provided in Attachment A.

¹The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "...equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

EXHIBIT C: NEAREST RECEPTOR LOCATIONS DURING CONSTRUCTION ACTIVITY



LEGEND:





-  N
-  Receiver Locations
-  Construction Activity
-  Distance from receiver to construction activity (in feet)

TABLE 5: LOCALIZED SIGNIFICANCE SUMMARY OF CONSTRUCTION (WITHOUT MITIGATION)

| On-Site Site Preparation Emissions | Emissions (lbs/day) | | | |
|------------------------------------|---------------------|--------------|------------------|-------------------|
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Maximum Daily Emissions | 63.78 | 22.40 | 11.28 | 6.59 |
| SCAQMD Localized Threshold | 252 | 2,428 | 35 | 10 |
| Threshold Exceeded? | NO | NO | NO | NO |
| On-Site Grading Emissions | Emissions (lbs/day) | | | |
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Maximum Daily Emissions | 60.88 | 32.40 | 6.51 | 3.75 |
| SCAQMD Localized Threshold | 269 | 2,611 | 40 | 11 |
| Threshold Exceeded? | NO | NO | NO | NO |

GREENHOUSE GAS

The City adopted The Chino Climate Action Plan and Plan Implementing Measures, effective in full force as of January 2, 2014. As part of the CAP, the City of Chino selected a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 GHG emissions levels by 2020, consistent with AB 32 and recommended in the AB 32 Scoping Plan. In order to fulfill this commitment, GHG emissions-reducing development and performance standards have been established under the Chino Climate Action Plan as codified at Chino Municipal Code Chapter 15.45 – Climate Action Plan Implementation.

CONSTRUCTION AND OPERATIONAL EMISSIONS

Construction activities associated with the proposed Project will result in emissions of CO₂ and CH₄ from construction activities. For the construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by a 30-year project life then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions.

Operational activities associated with the proposed Project will result in emissions of CO₂, CH₄, and N₂O from the following primary sources: area source emissions, energy source emissions, mobile source emissions, solid waste, and water supply, treatment, and distribution. Detailed construction and operational model outputs are presented in Attachment A. GHG emissions are summarized on Table 6.

GREENHOUSE GAS EMISSIONS SUMMARY

The Project would comply with applicable provisions of Chino Municipal Code Chapter 15.45 – Climate Action Plan Implementation. More specifically, development within the Project site would be required to conform to “Option 1” of Chino Municipal Code Chapter 15.45 which states: “Exceed by 3% the mandatory California Energy Code Title 24, Part 6 standards, in effect at the time of development application submittal for discretionary review.” It should be noted the Project is consistent with the 3% target reduction established by the City of Chino CAP.

As substantiated herein, the proposed Project would be consistent with the CAP, would be in concert with AB 32 and international efforts to address global climate change, and would reflect specific local requirements that would substantially lessen cumulative GHG emissions impacts. The proposed Project would therefore also fulfill the description of mitigation found in *CEQA Guidelines* §15130(a)(3) and §15183.5. The Project’s incremental contribution to GHG emissions impacts would therefore not be cumulatively considerable.

TABLE 6: TOTAL PROJECT GHG EMISSIONS (ANNUAL)

| Emission Source | Emissions (MT/yr) |
|---|-------------------------|
| | Total CO ₂ e |
| Annual construction-related emissions amortized over 30 years | 33.76 |
| Area | 42.96 |
| Energy | 735.32 |
| Mobile Sources | 2,485.60 |
| Waste | 97.94 |
| Water Usage | 83.98 |
| Total CO₂e (All Sources) | 3,479.56 |
| Screening Threshold (CO₂e) | 3,000 |
| Threshold Exceeded? | NO |

MT/yr = Metric Tons per Year

If you have any questions, please contact me directly at (949) 336-5987.

Respectfully submitted,

URBAN CROSSROADS, INC.



Haseeb Qureshi,
Associate Principal

REFERENCES

1. **South Coast Air Quality Management District.** Rule 403. Fugitive Dust. [Online]
<https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>.
2. **South Coast Air Quality Management District.** RULE 1113. Architectural Coatings. [Online]
<http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>.
3. **South Coast Air Quality Management.** Rule 445. Wood Burning Devices. [Online]
<http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-445.pdf>.
4. **KOA Corporation.** *511 South Harbor Boulevard Traffic Impact Study.* 2019.
5. **South Coast Air Quality Management District.** *Localized Significance Thresholds Methodology.* s.l. : South Coast Air Quality Management District, 2003.

ATTACHMENT A:

CALEEMOD MODEL OUTPUTS

Appesetche Residential - San Bernardino-South Coast County, Summer

Appesetche Residential
San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|--------|---------------|-------------|--------------------|------------|
| Single Family Housing | 166.00 | Dwelling Unit | 16.77 | 298,800.00 | 475 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 32 |
| Climate Zone | 10 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MW hr) | 702.44 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage = 16.77 ac

Construction Phase - Grading Activity anticipated to last 60 working days with import. Painting expected to overlap with end of Building Construction.

Grading - TAG for Site Prep based on 3.5 ac/day x 10 working days and 4.0 ac/day x 60 days for Grading

Off-road Equipment - Crawler Tractors used in lieu of T/L/B

Off-road Equipment - Crawler Tractors used in lieu of T/L/B

Vehicle Trips - TG from TIA and ITE 10th Edition

Construction Off-road Equipment Mitigation -

Woodstoves - Rule 445

Appesetche Residential - San Bernardino-South Coast County, Summer

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------------------|---------------|------------------|
| tblConstructionPhase | NumDays | 20.00 | 100.00 |
| tblConstructionPhase | NumDays | 30.00 | 60.00 |
| tblConstructionPhase | PhaseEndDate | 8/13/2021 | 7/30/2021 |
| tblConstructionPhase | PhaseEndDate | 6/18/2021 | 7/30/2021 |
| tblConstructionPhase | PhaseEndDate | 4/24/2020 | 6/5/2020 |
| tblConstructionPhase | PhaseStartDate | 7/17/2021 | 3/15/2021 |
| tblConstructionPhase | PhaseStartDate | 4/25/2020 | 6/6/2020 |
| tblFireplaces | NumberGas | 141.10 | 166.00 |
| tblFireplaces | NumberNoFireplace | 16.60 | 0.00 |
| tblFireplaces | NumberWood | 8.30 | 0.00 |
| tblGrading | AcresOfGrading | 210.00 | 240.00 |
| tblGrading | AcresOfGrading | 20.00 | 35.00 |
| tblGrading | MaterialImported | 0.00 | 53,370.00 |
| tblLandUse | LotAcreage | 53.90 | 16.77 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblVehicleTrips | ST_TR | 9.91 | 9.54 |
| tblVehicleTrips | SU_TR | 8.62 | 8.55 |
| tblVehicleTrips | WD_TR | 9.52 | 9.44 |
| tblWoodstoves | NumberCatalytic | 8.30 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 8.30 | 0.00 |

2.0 Emissions Summary

Appesetche Residential - San Bernardino-South Coast County, Summer

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 | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |
| Energy | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Mobile | 3.5969 | 22.8457 | 43.1342 | 0.1603 | 11.5379 | 0.1118 | 11.6497 | 3.0876 | 0.1048 | 3.1923 | | 16,336.7661 | 16,336.7661 | 0.8139 | | 16,357.1139 |
| Total | 10.9135 | 27.0401 | 58.5766 | 0.1868 | 11.5379 | 0.5137 | 12.0516 | 3.0876 | 0.5067 | 3.5943 | 0.0000 | 21,513.7742 | 21,513.7742 | 0.9366 | 0.0945 | 21,565.3372 |

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 | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |
| Energy | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Mobile | 3.5969 | 22.8457 | 43.1342 | 0.1603 | 11.5379 | 0.1118 | 11.6497 | 3.0876 | 0.1048 | 3.1923 | | 16,336.7661 | 16,336.7661 | 0.8139 | | 16,357.1139 |
| Total | 10.9135 | 27.0401 | 58.5766 | 0.1868 | 11.5379 | 0.5137 | 12.0516 | 3.0876 | 0.5067 | 3.5943 | 0.0000 | 21,513.7742 | 21,513.7742 | 0.9366 | 0.0945 | 21,565.3372 |

Appesetche Residential - San Bernardino-South Coast County, Summer

| | ROG | NOx | CO | SO2 | 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Site Preparation | Site Preparation | 2/29/2020 | 3/13/2020 | 5 | 10 | |
| 2 | Grading | Grading | 3/14/2020 | 6/5/2020 | 5 | 60 | |
| 3 | Building Construction | Building Construction | 6/6/2020 | 7/30/2021 | 5 | 300 | |
| 4 | Paving | Paving | 6/19/2021 | 7/16/2021 | 5 | 20 | |
| 5 | Architectural Coating | Architectural Coating | 3/15/2021 | 7/30/2021 | 5 | 100 | |

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 240

Acres of Paving: 0

Residential Indoor: 605,070; Residential Outdoor: 201,690; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Appesetche Residential - San Bernardino-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Site Preparation | Crawler Tractors | 4 | 8.00 | 212 | 0.43 |
| Grading | Crawler Tractors | 2 | 8.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

Appesetche Residential - San Bernardino-South Coast County, Summer

| 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 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 6,671.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 60.00 | 18.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 12.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 21.7780 | 0.0000 | 21.7780 | 10.3315 | 0.0000 | 10.3315 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.5539 | 63.7874 | 22.3947 | 0.0570 | | 2.7875 | 2.7875 | | 2.5645 | 2.5645 | | 5,523.581 2 | 5,523.581 2 | 1.7864 | | 5,568.242 1 |
| Total | 5.5539 | 63.7874 | 22.3947 | 0.0570 | 21.7780 | 2.7875 | 24.5655 | 10.3315 | 2.5645 | 12.8960 | | 5,523.581 2 | 5,523.581 2 | 1.7864 | | 5,568.242 1 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.2 Site Preparation - 2020

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 | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |
| Total | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |

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 | | | | | 8.4934 | 0.0000 | 8.4934 | 4.0293 | 0.0000 | 4.0293 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.5539 | 63.7874 | 22.3947 | 0.0570 | | 2.7875 | 2.7875 | | 2.5645 | 2.5645 | 0.0000 | 5,523.5812 | 5,523.5812 | 1.7864 | | 5,568.2421 |
| Total | 5.5539 | 63.7874 | 22.3947 | 0.0570 | 8.4934 | 2.7875 | 11.2809 | 4.0293 | 2.5645 | 6.5938 | 0.0000 | 5,523.5812 | 5,523.5812 | 1.7864 | | 5,568.2421 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.2 Site Preparation - 2020

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 | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |
| Total | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 10.3647 | 0.0000 | 10.3647 | 3.7835 | 0.0000 | 3.7835 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.1888 | 60.8826 | 32.3988 | 0.0715 | | 2.4690 | 2.4690 | | 2.2714 | 2.2714 | | 6,925.1051 | 6,925.1051 | 2.2397 | | 6,981.0981 |
| Total | 5.1888 | 60.8826 | 32.3988 | 0.0715 | 10.3647 | 2.4690 | 12.8336 | 3.7835 | 2.2714 | 6.0549 | | 6,925.1051 | 6,925.1051 | 2.2397 | | 6,981.0981 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.3 Grading - 2020

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 | 0.6907 | 27.3887 | 4.0416 | 0.0872 | 1.9458 | 0.0816 | 2.0274 | 0.5335 | 0.0781 | 0.6116 | | 9,258.326 1 | 9,258.326 1 | 0.4996 | | 9,270.817 1 |
| 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 | 0.1092 | 0.0701 | 0.8995 | 2.2700e-003 | 0.2236 | 1.4600e-003 | 0.2250 | 0.0593 | 1.3500e-003 | 0.0606 | | 226.0168 | 226.0168 | 6.9000e-003 | | 226.1893 |
| Total | 0.7998 | 27.4588 | 4.9411 | 0.0895 | 2.1693 | 0.0831 | 2.2524 | 0.5928 | 0.0794 | 0.6722 | | 9,484.342 9 | 9,484.342 9 | 0.5065 | | 9,497.006 4 |

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 | | | | | 4.0422 | 0.0000 | 4.0422 | 1.4756 | 0.0000 | 1.4756 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.1888 | 60.8826 | 32.3988 | 0.0715 | | 2.4690 | 2.4690 | | 2.2714 | 2.2714 | 0.0000 | 6,925.105 1 | 6,925.105 1 | 2.2397 | | 6,981.098 1 |
| Total | 5.1888 | 60.8826 | 32.3988 | 0.0715 | 4.0422 | 2.4690 | 6.5112 | 1.4756 | 2.2714 | 3.7470 | 0.0000 | 6,925.105 1 | 6,925.105 1 | 2.2397 | | 6,981.098 1 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.3 Grading - 2020

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 | 0.6907 | 27.3887 | 4.0416 | 0.0872 | 1.9458 | 0.0816 | 2.0274 | 0.5335 | 0.0781 | 0.6116 | | 9,258.326 1 | 9,258.326 1 | 0.4996 | | 9,270.817 1 |
| 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 | 0.1092 | 0.0701 | 0.8995 | 2.2700e-003 | 0.2236 | 1.4600e-003 | 0.2250 | 0.0593 | 1.3500e-003 | 0.0606 | | 226.0168 | 226.0168 | 6.9000e-003 | | 226.1893 |
| Total | 0.7998 | 27.4588 | 4.9411 | 0.0895 | 2.1693 | 0.0831 | 2.2524 | 0.5928 | 0.0794 | 0.6722 | | 9,484.342 9 | 9,484.342 9 | 0.5065 | | 9,497.006 4 |

3.4 Building Construction - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.063 1 | 2,553.063 1 | 0.6229 | | 2,568.634 5 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.063 1 | 2,553.063 1 | 0.6229 | | 2,568.634 5 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0546 | 1.8995 | 0.3702 | 4.8800e-003 | 0.1153 | 8.7400e-003 | 0.1240 | 0.0332 | 8.3600e-003 | 0.0416 | | 514.9825 | 514.9825 | 0.0335 | | 515.8187 |
| Worker | 0.3275 | 0.2102 | 2.6984 | 6.8100e-003 | 0.6707 | 4.3900e-003 | 0.6751 | 0.1779 | 4.0500e-003 | 0.1819 | | 678.0505 | 678.0505 | 0.0207 | | 678.5680 |
| Total | 0.3821 | 2.1097 | 3.0686 | 0.0117 | 0.7860 | 0.0131 | 0.7991 | 0.2111 | 0.0124 | 0.2235 | | 1,193.0330 | 1,193.0330 | 0.0542 | | 1,194.3867 |

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 | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0546 | 1.8995 | 0.3702 | 4.8800e-003 | 0.1153 | 8.7400e-003 | 0.1240 | 0.0332 | 8.3600e-003 | 0.0416 | | 514.9825 | 514.9825 | 0.0335 | | 515.8187 |
| Worker | 0.3275 | 0.2102 | 2.6984 | 6.8100e-003 | 0.6707 | 4.3900e-003 | 0.6751 | 0.1779 | 4.0500e-003 | 0.1819 | | 678.0505 | 678.0505 | 0.0207 | | 678.5680 |
| Total | 0.3821 | 2.1097 | 3.0686 | 0.0117 | 0.7860 | 0.0131 | 0.7991 | 0.2111 | 0.0124 | 0.2235 | | 1,193.0330 | 1,193.0330 | 0.0542 | | 1,194.3867 |

3.4 Building Construction - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0466 | 1.7359 | 0.3266 | 4.8600e-003 | 0.1153 | 2.9800e-003 | 0.1183 | 0.0332 | 2.8500e-003 | 0.0360 | | 512.2608 | 512.2608 | 0.0324 | | 513.0701 |
| Worker | 0.3049 | 0.1884 | 2.4839 | 6.5900e-003 | 0.6707 | 4.2900e-003 | 0.6750 | 0.1779 | 3.9500e-003 | 0.1818 | | 656.4483 | 656.4483 | 0.0187 | | 656.9154 |
| Total | 0.3514 | 1.9243 | 2.8105 | 0.0115 | 0.7859 | 7.2700e-003 | 0.7932 | 0.2111 | 6.8000e-003 | 0.2179 | | 1,168.7091 | 1,168.7091 | 0.0511 | | 1,169.9855 |

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 | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0466 | 1.7359 | 0.3266 | 4.8600e-003 | 0.1153 | 2.9800e-003 | 0.1183 | 0.0332 | 2.8500e-003 | 0.0360 | | 512.2608 | 512.2608 | 0.0324 | | 513.0701 |
| Worker | 0.3049 | 0.1884 | 2.4839 | 6.5900e-003 | 0.6707 | 4.2900e-003 | 0.6750 | 0.1779 | 3.9500e-003 | 0.1818 | | 656.4483 | 656.4483 | 0.0187 | | 656.9154 |
| Total | 0.3514 | 1.9243 | 2.8105 | 0.0115 | 0.7859 | 7.2700e-003 | 0.7932 | 0.2111 | 6.8000e-003 | 0.2179 | | 1,168.7091 | 1,168.7091 | 0.0511 | | 1,169.9855 |

3.5 Paving - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.5 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |
| Total | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |

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 | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.5 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |
| Total | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 18.6967 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.9156 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0610 | 0.0377 | 0.4968 | 1.3200e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 131.2897 | 131.2897 | 3.7400e-003 | | 131.3831 |
| Total | 0.0610 | 0.0377 | 0.4968 | 1.3200e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 131.2897 | 131.2897 | 3.7400e-003 | | 131.3831 |

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 | 18.6967 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.9156 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Appesetche Residential - San Bernardino-South Coast County, Summer

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0610 | 0.0377 | 0.4968 | 1.3200e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 131.2897 | 131.2897 | 3.7400e-003 | | 131.3831 |
| Total | 0.0610 | 0.0377 | 0.4968 | 1.3200e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 131.2897 | 131.2897 | 3.7400e-003 | | 131.3831 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Appesetche Residential - San Bernardino-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 3.5969 | 22.8457 | 43.1342 | 0.1603 | 11.5379 | 0.1118 | 11.6497 | 3.0876 | 0.1048 | 3.1923 | | 16,336.7661 | 16,336.7661 | 0.8139 | | 16,357.1139 |
| Unmitigated | 3.5969 | 22.8457 | 43.1342 | 0.1603 | 11.5379 | 0.1118 | 11.6497 | 3.0876 | 0.1048 | 3.1923 | | 16,336.7661 | 16,336.7661 | 0.8139 | | 16,357.1139 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-----------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Single Family Housing | 1,567.04 | 1,583.64 | 1419.30 | 5,290,796 | 5,290,796 |
| Total | 1,567.04 | 1,583.64 | 1,419.30 | 5,290,796 | 5,290,796 |

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 |
| Single Family Housing | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.549952 | 0.037123 | 0.179649 | 0.119457 | 0.017229 | 0.005267 | 0.017877 | 0.062669 | 0.001348 | 0.001607 | 0.006000 | 0.000812 | 0.001010 |

5.0 Energy Detail

Historical Energy Use: N

Appesetche Residential - San Bernardino-South Coast County, Summer

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| NaturalGas Unmitigated | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |

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 | | | | | |
| Single Family Housing | 13915 | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Total | | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |

Appesetche Residential - San Bernardino-South Coast County, Summer

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 | | | | | |
| Single Family Housing | 13.915 | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Total | | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |
| Unmitigated | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |

Appesetche Residential - San Bernardino-South Coast County, Summer

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.5122 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 5.9162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.3222 | 2.7537 | 1.1718 | 0.0176 | | 0.2226 | 0.2226 | | 0.2226 | 0.2226 | 0.0000 | 3,515.2941 | 3,515.2941 | 0.0674 | 0.0645 | 3,536.1838 |
| Landscaping | 0.4159 | 0.1584 | 13.7250 | 7.2000e-004 | | 0.0757 | 0.0757 | | 0.0757 | 0.0757 | | 24.6597 | 24.6597 | 0.0239 | | 25.2571 |
| Total | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |

Appesetche Residential - San Bernardino-South Coast County, Summer

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 | 0.5122 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 5.9162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.3222 | 2.7537 | 1.1718 | 0.0176 | | 0.2226 | 0.2226 | | 0.2226 | 0.2226 | 0.0000 | 3,515.2941 | 3,515.2941 | 0.0674 | 0.0645 | 3,536.1838 |
| Landscaping | 0.4159 | 0.1584 | 13.7250 | 7.2000e-004 | | 0.0757 | 0.0757 | | 0.0757 | 0.0757 | | 24.6597 | 24.6597 | 0.0239 | | 25.2571 |
| Total | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Appesetche Residential - San Bernardino-South Coast County, Summer

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Appesetche Residential - San Bernardino-South Coast County, Winter

Appesetche Residential
San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|--------|---------------|-------------|--------------------|------------|
| Single Family Housing | 166.00 | Dwelling Unit | 16.77 | 298,800.00 | 475 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 32 |
| Climate Zone | 10 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MW hr) | 702.44 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage = 16.77 ac

Construction Phase - Grading Activity anticipated to last 60 working days with import. Painting expected to overlap with end of Building Construction.

Grading - TAG for Site Prep based on 3.5 ac/day x 10 working days and 4.0 ac/day x 60 days for Grading

Off-road Equipment - Crawler Tractors used in lieu of T/L/B

Off-road Equipment - Crawler Tractors used in lieu of T/L/B

Vehicle Trips - TG from TIA and ITE 10th Edition

Construction Off-road Equipment Mitigation -

Woodstoves - Rule 445

Appesetche Residential - San Bernardino-South Coast County, Winter

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------------------|---------------|------------------|
| tblConstructionPhase | NumDays | 20.00 | 100.00 |
| tblConstructionPhase | NumDays | 30.00 | 60.00 |
| tblConstructionPhase | PhaseEndDate | 8/13/2021 | 7/30/2021 |
| tblConstructionPhase | PhaseEndDate | 6/18/2021 | 7/30/2021 |
| tblConstructionPhase | PhaseEndDate | 4/24/2020 | 6/5/2020 |
| tblConstructionPhase | PhaseStartDate | 7/17/2021 | 3/15/2021 |
| tblConstructionPhase | PhaseStartDate | 4/25/2020 | 6/6/2020 |
| tblFireplaces | NumberGas | 141.10 | 166.00 |
| tblFireplaces | NumberNoFireplace | 16.60 | 0.00 |
| tblFireplaces | NumberWood | 8.30 | 0.00 |
| tblGrading | AcresOfGrading | 210.00 | 240.00 |
| tblGrading | AcresOfGrading | 20.00 | 35.00 |
| tblGrading | MaterialImported | 0.00 | 53,370.00 |
| tblLandUse | LotAcreage | 53.90 | 16.77 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblVehicleTrips | ST_TR | 9.91 | 9.54 |
| tblVehicleTrips | SU_TR | 8.62 | 8.55 |
| tblVehicleTrips | WD_TR | 9.52 | 9.44 |
| tblWoodstoves | NumberCatalytic | 8.30 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 8.30 | 0.00 |

2.0 Emissions Summary

Appesetche Residential - San Bernardino-South Coast County, Winter

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 | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |
| Energy | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Mobile | 3.1458 | 22.9269 | 37.7781 | 0.1477 | 11.5379 | 0.1127 | 11.6506 | 3.0876 | 0.1056 | 3.1932 | | 15,070.3456 | 15,070.3456 | 0.8246 | | 15,090.9601 |
| Total | 10.4624 | 27.1213 | 53.2206 | 0.1742 | 11.5379 | 0.5146 | 12.0525 | 3.0876 | 0.5076 | 3.5952 | 0.0000 | 20,247.3536 | 20,247.3536 | 0.9472 | 0.0945 | 20,299.1834 |

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 | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |
| Energy | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Mobile | 3.1458 | 22.9269 | 37.7781 | 0.1477 | 11.5379 | 0.1127 | 11.6506 | 3.0876 | 0.1056 | 3.1932 | | 15,070.3456 | 15,070.3456 | 0.8246 | | 15,090.9601 |
| Total | 10.4624 | 27.1213 | 53.2206 | 0.1742 | 11.5379 | 0.5146 | 12.0525 | 3.0876 | 0.5076 | 3.5952 | 0.0000 | 20,247.3536 | 20,247.3536 | 0.9472 | 0.0945 | 20,299.1834 |

Appesetche Residential - San Bernardino-South Coast County, Winter

| | ROG | NOx | CO | SO2 | 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Site Preparation | Site Preparation | 2/29/2020 | 3/13/2020 | 5 | 10 | |
| 2 | Grading | Grading | 3/14/2020 | 6/5/2020 | 5 | 60 | |
| 3 | Building Construction | Building Construction | 6/6/2020 | 7/30/2021 | 5 | 300 | |
| 4 | Paving | Paving | 6/19/2021 | 7/16/2021 | 5 | 20 | |
| 5 | Architectural Coating | Architectural Coating | 3/15/2021 | 7/30/2021 | 5 | 100 | |

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 240

Acres of Paving: 0

Residential Indoor: 605,070; Residential Outdoor: 201,690; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Appesetche Residential - San Bernardino-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Site Preparation | Crawler Tractors | 4 | 8.00 | 212 | 0.43 |
| Grading | Crawler Tractors | 2 | 8.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

Appesetche Residential - San Bernardino-South Coast County, Winter

| 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 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 6,671.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 60.00 | 18.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 12.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 21.7780 | 0.0000 | 21.7780 | 10.3315 | 0.0000 | 10.3315 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.5539 | 63.7874 | 22.3947 | 0.0570 | | 2.7875 | 2.7875 | | 2.5645 | 2.5645 | | 5,523.581 2 | 5,523.581 2 | 1.7864 | | 5,568.242 1 |
| Total | 5.5539 | 63.7874 | 22.3947 | 0.0570 | 21.7780 | 2.7875 | 24.5655 | 10.3315 | 2.5645 | 12.8960 | | 5,523.581 2 | 5,523.581 2 | 1.7864 | | 5,568.242 1 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.2 Site Preparation - 2020

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 | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |
| Total | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |

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 | | | | | 8.4934 | 0.0000 | 8.4934 | 4.0293 | 0.0000 | 4.0293 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.5539 | 63.7874 | 22.3947 | 0.0570 | | 2.7875 | 2.7875 | | 2.5645 | 2.5645 | 0.0000 | 5,523.5812 | 5,523.5812 | 1.7864 | | 5,568.2421 |
| Total | 5.5539 | 63.7874 | 22.3947 | 0.0570 | 8.4934 | 2.7875 | 11.2809 | 4.0293 | 2.5645 | 6.5938 | 0.0000 | 5,523.5812 | 5,523.5812 | 1.7864 | | 5,568.2421 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.2 Site Preparation - 2020

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 | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |
| Total | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 10.3647 | 0.0000 | 10.3647 | 3.7835 | 0.0000 | 3.7835 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.1888 | 60.8826 | 32.3988 | 0.0715 | | 2.4690 | 2.4690 | | 2.2714 | 2.2714 | | 6,925.1051 | 6,925.1051 | 2.2397 | | 6,981.0981 |
| Total | 5.1888 | 60.8826 | 32.3988 | 0.0715 | 10.3647 | 2.4690 | 12.8336 | 3.7835 | 2.2714 | 6.0549 | | 6,925.1051 | 6,925.1051 | 2.2397 | | 6,981.0981 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.3 Grading - 2020

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 | 0.7220 | 27.5342 | 4.6241 | 0.0849 | 1.9458 | 0.0827 | 2.0285 | 0.5335 | 0.0791 | 0.6126 | | 9,016.9209 | 9,016.9209 | 0.5422 | | 9,030.4756 |
| 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 | 0.1092 | 0.0737 | 0.7393 | 2.0400e-003 | 0.2236 | 1.4600e-003 | 0.2250 | 0.0593 | 1.3500e-003 | 0.0606 | | 202.7500 | 202.7500 | 6.0500e-003 | | 202.9013 |
| Total | 0.8312 | 27.6079 | 5.3633 | 0.0870 | 2.1693 | 0.0842 | 2.2535 | 0.5928 | 0.0805 | 0.6733 | | 9,219.6709 | 9,219.6709 | 0.5482 | | 9,233.3768 |

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 | | | | | 4.0422 | 0.0000 | 4.0422 | 1.4756 | 0.0000 | 1.4756 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.1888 | 60.8826 | 32.3988 | 0.0715 | | 2.4690 | 2.4690 | | 2.2714 | 2.2714 | 0.0000 | 6,925.1051 | 6,925.1051 | 2.2397 | | 6,981.0981 |
| Total | 5.1888 | 60.8826 | 32.3988 | 0.0715 | 4.0422 | 2.4690 | 6.5112 | 1.4756 | 2.2714 | 3.7470 | 0.0000 | 6,925.1051 | 6,925.1051 | 2.2397 | | 6,981.0981 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.3 Grading - 2020

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 | 0.7220 | 27.5342 | 4.6241 | 0.0849 | 1.9458 | 0.0827 | 2.0285 | 0.5335 | 0.0791 | 0.6126 | | 9,016.9209 | 9,016.9209 | 0.5422 | | 9,030.4756 |
| 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 | 0.1092 | 0.0737 | 0.7393 | 2.0400e-003 | 0.2236 | 1.4600e-003 | 0.2250 | 0.0593 | 1.3500e-003 | 0.0606 | | 202.7500 | 202.7500 | 6.0500e-003 | | 202.9013 |
| Total | 0.8312 | 27.6079 | 5.3633 | 0.0870 | 2.1693 | 0.0842 | 2.2535 | 0.5928 | 0.0805 | 0.6733 | | 9,219.6709 | 9,219.6709 | 0.5482 | | 9,233.3768 |

3.4 Building Construction - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2020

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 | 0.0576 | 1.8841 | 0.4291 | 4.6900e-003 | 0.1153 | 8.8500e-003 | 0.1241 | 0.0332 | 8.4700e-003 | 0.0417 | | 495.0002 | 495.0002 | 0.0370 | | 495.9248 |
| Worker | 0.3277 | 0.2212 | 2.2177 | 6.1100e-003 | 0.6707 | 4.3900e-003 | 0.6751 | 0.1779 | 4.0500e-003 | 0.1819 | | 608.2499 | 608.2499 | 0.0182 | | 608.7038 |
| Total | 0.3853 | 2.1053 | 2.6468 | 0.0108 | 0.7860 | 0.0132 | 0.7992 | 0.2111 | 0.0125 | 0.2236 | | 1,103.2501 | 1,103.2501 | 0.0551 | | 1,104.6286 |

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 | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2020

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 | 0.0576 | 1.8841 | 0.4291 | 4.6900e-003 | 0.1153 | 8.8500e-003 | 0.1241 | 0.0332 | 8.4700e-003 | 0.0417 | | 495.0002 | 495.0002 | 0.0370 | | 495.9248 |
| Worker | 0.3277 | 0.2212 | 2.2177 | 6.1100e-003 | 0.6707 | 4.3900e-003 | 0.6751 | 0.1779 | 4.0500e-003 | 0.1819 | | 608.2499 | 608.2499 | 0.0182 | | 608.7038 |
| Total | 0.3853 | 2.1053 | 2.6468 | 0.0108 | 0.7860 | 0.0132 | 0.7992 | 0.2111 | 0.0125 | 0.2236 | | 1,103.2501 | 1,103.2501 | 0.0551 | | 1,104.6286 |

3.4 Building Construction - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0494 | 1.7174 | 0.3821 | 4.6700e-003 | 0.1153 | 3.0600e-003 | 0.1183 | 0.0332 | 2.9300e-003 | 0.0361 | | 492.3632 | 492.3632 | 0.0359 | | 493.2603 |
| Worker | 0.3055 | 0.1982 | 2.0374 | 5.9100e-003 | 0.6707 | 4.2900e-003 | 0.6750 | 0.1779 | 3.9500e-003 | 0.1818 | | 588.8986 | 588.8986 | 0.0164 | | 589.3084 |
| Total | 0.3549 | 1.9156 | 2.4194 | 0.0106 | 0.7859 | 7.3500e-003 | 0.7933 | 0.2111 | 6.8800e-003 | 0.2179 | | 1,081.2618 | 1,081.2618 | 0.0523 | | 1,082.5687 |

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 | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0494 | 1.7174 | 0.3821 | 4.6700e-003 | 0.1153 | 3.0600e-003 | 0.1183 | 0.0332 | 2.9300e-003 | 0.0361 | | 492.3632 | 492.3632 | 0.0359 | | 493.2603 |
| Worker | 0.3055 | 0.1982 | 2.0374 | 5.9100e-003 | 0.6707 | 4.2900e-003 | 0.6750 | 0.1779 | 3.9500e-003 | 0.1818 | | 588.8986 | 588.8986 | 0.0164 | | 589.3084 |
| Total | 0.3549 | 1.9156 | 2.4194 | 0.0106 | 0.7859 | 7.3500e-003 | 0.7933 | 0.2111 | 6.8800e-003 | 0.2179 | | 1,081.2618 | 1,081.2618 | 0.0523 | | 1,082.5687 |

3.5 Paving - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.5 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |
| Total | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |

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 | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.5 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |
| Total | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 18.6967 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.9156 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0611 | 0.0396 | 0.4075 | 1.1800e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 117.7797 | 117.7797 | 3.2800e-003 | | 117.8617 |
| Total | 0.0611 | 0.0396 | 0.4075 | 1.1800e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 117.7797 | 117.7797 | 3.2800e-003 | | 117.8617 |

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 | 18.6967 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.9156 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Appesetche Residential - San Bernardino-South Coast County, Winter

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 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 | 0.0611 | 0.0396 | 0.4075 | 1.1800e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 117.7797 | 117.7797 | 3.2800e-003 | | 117.8617 |
| Total | 0.0611 | 0.0396 | 0.4075 | 1.1800e-003 | 0.1341 | 8.6000e-004 | 0.1350 | 0.0356 | 7.9000e-004 | 0.0364 | | 117.7797 | 117.7797 | 3.2800e-003 | | 117.8617 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Appesetche Residential - San Bernardino-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 3.1458 | 22.9269 | 37.7781 | 0.1477 | 11.5379 | 0.1127 | 11.6506 | 3.0876 | 0.1056 | 3.1932 | | 15,070.3456 | 15,070.3456 | 0.8246 | | 15,090.9601 |
| Unmitigated | 3.1458 | 22.9269 | 37.7781 | 0.1477 | 11.5379 | 0.1127 | 11.6506 | 3.0876 | 0.1056 | 3.1932 | | 15,070.3456 | 15,070.3456 | 0.8246 | | 15,090.9601 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-----------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Single Family Housing | 1,567.04 | 1,583.64 | 1419.30 | 5,290,796 | 5,290,796 |
| Total | 1,567.04 | 1,583.64 | 1,419.30 | 5,290,796 | 5,290,796 |

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 |
| Single Family Housing | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.549952 | 0.037123 | 0.179649 | 0.119457 | 0.017229 | 0.005267 | 0.017877 | 0.062669 | 0.001348 | 0.001607 | 0.006000 | 0.000812 | 0.001010 |

5.0 Energy Detail

Historical Energy Use: N

Appesetche Residential - San Bernardino-South Coast County, Winter

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| NaturalGas Unmitigated | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |

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 | | | | | |
| Single Family Housing | 13915 | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Total | | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |

Appesetche Residential - San Bernardino-South Coast County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas 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 | | | | | |
| Single Family Housing | 13.915 | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |
| Total | | 0.1501 | 1.2824 | 0.5457 | 8.1900e-003 | | 0.1037 | 0.1037 | | 0.1037 | 0.1037 | | 1,637.0543 | 1,637.0543 | 0.0314 | 0.0300 | 1,646.7825 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |
| Unmitigated | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |

Appesetche Residential - San Bernardino-South Coast County, Winter

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.5122 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 5.9162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.3222 | 2.7537 | 1.1718 | 0.0176 | | 0.2226 | 0.2226 | | 0.2226 | 0.2226 | 0.0000 | 3,515.2941 | 3,515.2941 | 0.0674 | 0.0645 | 3,536.1838 |
| Landscaping | 0.4159 | 0.1584 | 13.7250 | 7.2000e-004 | | 0.0757 | 0.0757 | | 0.0757 | 0.0757 | | 24.6597 | 24.6597 | 0.0239 | | 25.2571 |
| Total | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |

Appesetche Residential - San Bernardino-South Coast County, Winter

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 | 0.5122 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 5.9162 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.3222 | 2.7537 | 1.1718 | 0.0176 | | 0.2226 | 0.2226 | | 0.2226 | 0.2226 | 0.0000 | 3,515.2941 | 3,515.2941 | 0.0674 | 0.0645 | 3,536.1838 |
| Landscaping | 0.4159 | 0.1584 | 13.7250 | 7.2000e-004 | | 0.0757 | 0.0757 | | 0.0757 | 0.0757 | | 24.6597 | 24.6597 | 0.0239 | | 25.2571 |
| Total | 7.1666 | 2.9121 | 14.8967 | 0.0183 | | 0.2983 | 0.2983 | | 0.2983 | 0.2983 | 0.0000 | 3,539.9538 | 3,539.9538 | 0.0913 | 0.0645 | 3,561.4409 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Appesetche Residential - San Bernardino-South Coast County, Winter

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

Appesetche Residential - San Bernardino-South Coast County, Annual

Appesetche Residential
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|--------|---------------|-------------|--------------------|------------|
| Single Family Housing | 166.00 | Dwelling Unit | 16.77 | 298,800.00 | 475 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 32 |
| Climate Zone | 10 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MW hr) | 702.44 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage = 16.77 ac

Construction Phase - Grading Activity anticipated to last 60 working days with import. Painting expected to overlap with end of Building Construction.

Grading - TAG for Site Prep based on 3.5 ac/day x 10 working days and 4.0 ac/day x 60 days for Grading

Off-road Equipment - Crawler Tractors used in lieu of T/L/B

Off-road Equipment - Crawler Tractors used in lieu of T/L/B

Vehicle Trips - TG from TIA and ITE 10th Edition

Construction Off-road Equipment Mitigation -

Woodstoves - Rule 445

Appesetche Residential - San Bernardino-South Coast County, Annual

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------------------|---------------|------------------|
| tblConstructionPhase | NumDays | 20.00 | 100.00 |
| tblConstructionPhase | NumDays | 30.00 | 60.00 |
| tblConstructionPhase | PhaseEndDate | 8/13/2021 | 7/30/2021 |
| tblConstructionPhase | PhaseEndDate | 6/18/2021 | 7/30/2021 |
| tblConstructionPhase | PhaseEndDate | 4/24/2020 | 6/5/2020 |
| tblConstructionPhase | PhaseStartDate | 7/17/2021 | 3/15/2021 |
| tblConstructionPhase | PhaseStartDate | 4/25/2020 | 6/6/2020 |
| tblFireplaces | NumberGas | 141.10 | 166.00 |
| tblFireplaces | NumberNoFireplace | 16.60 | 0.00 |
| tblFireplaces | NumberWood | 8.30 | 0.00 |
| tblGrading | AcresOfGrading | 210.00 | 240.00 |
| tblGrading | AcresOfGrading | 20.00 | 35.00 |
| tblGrading | MaterialImported | 0.00 | 53,370.00 |
| tblLandUse | LotAcreage | 53.90 | 16.77 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblVehicleTrips | ST_TR | 9.91 | 9.54 |
| tblVehicleTrips | SU_TR | 8.62 | 8.55 |
| tblVehicleTrips | WD_TR | 9.52 | 9.44 |
| tblWoodstoves | NumberCatalytic | 8.30 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 8.30 | 0.00 |

2.0 Emissions Summary

Appesetche Residential - San Bernardino-South Coast County, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 2-3-2020 | 5-2-2020 | 2.0332 | 2.0332 |
| 2 | 5-3-2020 | 8-2-2020 | 1.6384 | 1.6384 |
| 3 | 8-3-2020 | 11-2-2020 | 0.7819 | 0.7819 |
| 4 | 11-3-2020 | 2-2-2021 | 0.7560 | 0.7560 |
| 5 | 2-3-2021 | 5-2-2021 | 1.0462 | 1.0462 |
| 6 | 5-3-2021 | 8-2-2021 | 1.4827 | 1.4827 |
| | | Highest | 2.0332 | 2.0332 |

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 | 1.2292 | 0.0542 | 1.7303 | 3.1000e-004 | | 0.0122 | 0.0122 | | 0.0122 | 0.0122 | 0.0000 | 42.6591 | 42.6591 | 3.4700e-003 | 7.3000e-004 | 42.9638 |
| Energy | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 732.0574 | 732.0574 | 0.0242 | 8.9100e-003 | 735.3173 |
| Mobile | 0.5475 | 4.1752 | 6.9459 | 0.0268 | 2.0147 | 0.0199 | 2.0347 | 0.5400 | 0.0187 | 0.5587 | 0.0000 | 2,482.333 2 | 2,482.333 2 | 0.1307 | 0.0000 | 2,485.600 4 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 39.5325 | 0.0000 | 39.5325 | 2.3363 | 0.0000 | 97.9401 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.4313 | 69.0080 | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |
| Total | 1.8041 | 4.4635 | 8.7757 | 0.0286 | 2.0147 | 0.0511 | 2.0658 | 0.5400 | 0.0499 | 0.5898 | 42.9638 | 3,326.057 8 | 3,369.021 5 | 2.8500 | 0.0186 | 3,445.798 2 |

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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 | 1.2292 | 0.0542 | 1.7303 | 3.1000e-004 | | 0.0122 | 0.0122 | | 0.0122 | 0.0122 | 0.0000 | 42.6591 | 42.6591 | 3.4700e-003 | 7.3000e-004 | 42.9638 |
| Energy | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 732.0574 | 732.0574 | 0.0242 | 8.9100e-003 | 735.3173 |
| Mobile | 0.5475 | 4.1752 | 6.9459 | 0.0268 | 2.0147 | 0.0199 | 2.0347 | 0.5400 | 0.0187 | 0.5587 | 0.0000 | 2,482.3332 | 2,482.3332 | 0.1307 | 0.0000 | 2,485.6004 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 39.5325 | 0.0000 | 39.5325 | 2.3363 | 0.0000 | 97.9401 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.4313 | 69.0080 | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |
| Total | 1.8041 | 4.4635 | 8.7757 | 0.0286 | 2.0147 | 0.0511 | 2.0658 | 0.5400 | 0.0499 | 0.5898 | 42.9638 | 3,326.0578 | 3,369.0215 | 2.8500 | 0.0186 | 3,445.7982 |

| | ROG | NOx | CO | SO2 | 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

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| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Site Preparation | Site Preparation | 2/29/2020 | 3/13/2020 | 5 | 10 | |
| 2 | Grading | Grading | 3/14/2020 | 6/5/2020 | 5 | 60 | |
| 3 | Building Construction | Building Construction | 6/6/2020 | 7/30/2021 | 5 | 300 | |
| 4 | Paving | Paving | 6/19/2021 | 7/16/2021 | 5 | 20 | |
| 5 | Architectural Coating | Architectural Coating | 3/15/2021 | 7/30/2021 | 5 | 100 | |

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 240

Acres of Paving: 0

Residential Indoor: 605,070; Residential Outdoor: 201,690; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Site Preparation | Crawler Tractors | 4 | 8.00 | 212 | 0.43 |
| Grading | Crawler Tractors | 2 | 8.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

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| 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 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 6,671.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 60.00 | 18.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 12.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1089 | 0.0000 | 0.1089 | 0.0517 | 0.0000 | 0.0517 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0278 | 0.3189 | 0.1120 | 2.8000e-004 | | 0.0139 | 0.0139 | | 0.0128 | 0.0128 | 0.0000 | 25.0545 | 25.0545 | 8.1000e-003 | 0.0000 | 25.2571 |
| Total | 0.0278 | 0.3189 | 0.1120 | 2.8000e-004 | 0.1089 | 0.0139 | 0.1228 | 0.0517 | 0.0128 | 0.0645 | 0.0000 | 25.0545 | 25.0545 | 8.1000e-003 | 0.0000 | 25.2571 |

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3.2 Site Preparation - 2020

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 | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |
| Total | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |

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 | | | | | 0.0425 | 0.0000 | 0.0425 | 0.0202 | 0.0000 | 0.0202 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0278 | 0.3189 | 0.1120 | 2.8000e-004 | | 0.0139 | 0.0139 | | 0.0128 | 0.0128 | 0.0000 | 25.0545 | 25.0545 | 8.1000e-003 | 0.0000 | 25.2571 |
| Total | 0.0278 | 0.3189 | 0.1120 | 2.8000e-004 | 0.0425 | 0.0139 | 0.0564 | 0.0202 | 0.0128 | 0.0330 | 0.0000 | 25.0545 | 25.0545 | 8.1000e-003 | 0.0000 | 25.2571 |

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3.2 Site Preparation - 2020

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 | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |
| Total | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3109 | 0.0000 | 0.3109 | 0.1135 | 0.0000 | 0.1135 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1557 | 1.8265 | 0.9720 | 2.1400e-003 | | 0.0741 | 0.0741 | | 0.0681 | 0.0681 | 0.0000 | 188.4705 | 188.4705 | 0.0610 | 0.0000 | 189.9944 |
| Total | 0.1557 | 1.8265 | 0.9720 | 2.1400e-003 | 0.3109 | 0.0741 | 0.3850 | 0.1135 | 0.0681 | 0.1816 | 0.0000 | 188.4705 | 188.4705 | 0.0610 | 0.0000 | 189.9944 |

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3.3 Grading - 2020

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 | 0.0211 | 0.8426 | 0.1290 | 2.5900e-003 | 0.0574 | 2.4600e-003 | 0.0599 | 0.0158 | 2.3600e-003 | 0.0181 | 0.0000 | 249.2110 | 249.2110 | 0.0141 | 0.0000 | 249.5638 |
| 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 | 2.9600e-003 | 2.3300e-003 | 0.0233 | 6.0000e-005 | 6.5800e-003 | 4.0000e-005 | 6.6200e-003 | 1.7500e-003 | 4.0000e-005 | 1.7900e-003 | 0.0000 | 5.6389 | 5.6389 | 1.7000e-004 | 0.0000 | 5.6432 |
| Total | 0.0241 | 0.8449 | 0.1522 | 2.6500e-003 | 0.0640 | 2.5000e-003 | 0.0665 | 0.0175 | 2.4000e-003 | 0.0199 | 0.0000 | 254.8499 | 254.8499 | 0.0143 | 0.0000 | 255.2069 |

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 | | | | | 0.1213 | 0.0000 | 0.1213 | 0.0443 | 0.0000 | 0.0443 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1557 | 1.8265 | 0.9720 | 2.1400e-003 | | 0.0741 | 0.0741 | | 0.0681 | 0.0681 | 0.0000 | 188.4703 | 188.4703 | 0.0610 | 0.0000 | 189.9941 |
| Total | 0.1557 | 1.8265 | 0.9720 | 2.1400e-003 | 0.1213 | 0.0741 | 0.1953 | 0.0443 | 0.0681 | 0.1124 | 0.0000 | 188.4703 | 188.4703 | 0.0610 | 0.0000 | 189.9941 |

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3.3 Grading - 2020

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 | 0.0211 | 0.8426 | 0.1290 | 2.5900e-003 | 0.0574 | 2.4600e-003 | 0.0599 | 0.0158 | 2.3600e-003 | 0.0181 | 0.0000 | 249.2110 | 249.2110 | 0.0141 | 0.0000 | 249.5638 |
| 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 | 2.9600e-003 | 2.3300e-003 | 0.0233 | 6.0000e-005 | 6.5800e-003 | 4.0000e-005 | 6.6200e-003 | 1.7500e-003 | 4.0000e-005 | 1.7900e-003 | 0.0000 | 5.6389 | 5.6389 | 1.7000e-004 | 0.0000 | 5.6432 |
| Total | 0.0241 | 0.8449 | 0.1522 | 2.6500e-003 | 0.0640 | 2.5000e-003 | 0.0665 | 0.0175 | 2.4000e-003 | 0.0199 | 0.0000 | 254.8499 | 254.8499 | 0.0143 | 0.0000 | 255.2069 |

3.4 Building Construction - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1579 | 1.4294 | 1.2552 | 2.0100e-003 | | 0.0832 | 0.0832 | | 0.0783 | 0.0783 | 0.0000 | 172.5494 | 172.5494 | 0.0421 | 0.0000 | 173.6018 |
| Total | 0.1579 | 1.4294 | 1.2552 | 2.0100e-003 | | 0.0832 | 0.0832 | | 0.0783 | 0.0783 | 0.0000 | 172.5494 | 172.5494 | 0.0421 | 0.0000 | 173.6018 |

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3.4 Building Construction - 2020

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 | 4.1600e-003 | 0.1432 | 0.0299 | 3.6000e-004 | 8.4500e-003 | 6.5000e-004 | 9.1100e-003 | 2.4400e-003 | 6.3000e-004 | 3.0700e-003 | 0.0000 | 34.2380 | 34.2380 | 2.3700e-003 | 0.0000 | 34.2973 |
| Worker | 0.0221 | 0.0174 | 0.1734 | 4.7000e-004 | 0.0490 | 3.3000e-004 | 0.0493 | 0.0130 | 3.0000e-004 | 0.0133 | 0.0000 | 42.0100 | 42.0100 | 1.2600e-003 | 0.0000 | 42.0415 |
| Total | 0.0262 | 0.1605 | 0.2033 | 8.3000e-004 | 0.0575 | 9.8000e-004 | 0.0585 | 0.0155 | 9.3000e-004 | 0.0164 | 0.0000 | 76.2480 | 76.2480 | 3.6300e-003 | 0.0000 | 76.3388 |

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 | 0.1579 | 1.4294 | 1.2552 | 2.0100e-003 | | 0.0832 | 0.0832 | | 0.0783 | 0.0783 | 0.0000 | 172.5492 | 172.5492 | 0.0421 | 0.0000 | 173.6016 |
| Total | 0.1579 | 1.4294 | 1.2552 | 2.0100e-003 | | 0.0832 | 0.0832 | | 0.0783 | 0.0783 | 0.0000 | 172.5492 | 172.5492 | 0.0421 | 0.0000 | 173.6016 |

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3.4 Building Construction - 2020

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 | 4.1600e-003 | 0.1432 | 0.0299 | 3.6000e-004 | 8.4500e-003 | 6.5000e-004 | 9.1100e-003 | 2.4400e-003 | 6.3000e-004 | 3.0700e-003 | 0.0000 | 34.2380 | 34.2380 | 2.3700e-003 | 0.0000 | 34.2973 |
| Worker | 0.0221 | 0.0174 | 0.1734 | 4.7000e-004 | 0.0490 | 3.3000e-004 | 0.0493 | 0.0130 | 3.0000e-004 | 0.0133 | 0.0000 | 42.0100 | 42.0100 | 1.2600e-003 | 0.0000 | 42.0415 |
| Total | 0.0262 | 0.1605 | 0.2033 | 8.3000e-004 | 0.0575 | 9.8000e-004 | 0.0585 | 0.0155 | 9.3000e-004 | 0.0164 | 0.0000 | 76.2480 | 76.2480 | 3.6300e-003 | 0.0000 | 76.3388 |

3.4 Building Construction - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1435 | 1.3161 | 1.2514 | 2.0300e-003 | | 0.0724 | 0.0724 | | 0.0681 | 0.0681 | 0.0000 | 174.8861 | 174.8861 | 0.0422 | 0.0000 | 175.9410 |
| Total | 0.1435 | 1.3161 | 1.2514 | 2.0300e-003 | | 0.0724 | 0.0724 | | 0.0681 | 0.0681 | 0.0000 | 174.8861 | 174.8861 | 0.0422 | 0.0000 | 175.9410 |

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3.4 Building Construction - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 3.6000e-003 | 0.1322 | 0.0269 | 3.6000e-004 | 8.5700e-003 | 2.3000e-004 | 8.8000e-003 | 2.4700e-003 | 2.2000e-004 | 2.6900e-003 | 0.0000 | 34.5136 | 34.5136 | 2.3300e-003 | 0.0000 | 34.5718 |
| Worker | 0.0209 | 0.0158 | 0.1614 | 4.6000e-004 | 0.0497 | 3.2000e-004 | 0.0500 | 0.0132 | 3.0000e-004 | 0.0135 | 0.0000 | 41.2185 | 41.2185 | 1.1500e-003 | 0.0000 | 41.2473 |
| Total | 0.0245 | 0.1480 | 0.1883 | 8.2000e-004 | 0.0582 | 5.5000e-004 | 0.0588 | 0.0157 | 5.2000e-004 | 0.0162 | 0.0000 | 75.7321 | 75.7321 | 3.4800e-003 | 0.0000 | 75.8191 |

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 | 0.1435 | 1.3161 | 1.2514 | 2.0300e-003 | | 0.0724 | 0.0724 | | 0.0681 | 0.0681 | 0.0000 | 174.8859 | 174.8859 | 0.0422 | 0.0000 | 175.9407 |
| Total | 0.1435 | 1.3161 | 1.2514 | 2.0300e-003 | | 0.0724 | 0.0724 | | 0.0681 | 0.0681 | 0.0000 | 174.8859 | 174.8859 | 0.0422 | 0.0000 | 175.9407 |

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3.4 Building Construction - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 3.6000e-003 | 0.1322 | 0.0269 | 3.6000e-004 | 8.5700e-003 | 2.3000e-004 | 8.8000e-003 | 2.4700e-003 | 2.2000e-004 | 2.6900e-003 | 0.0000 | 34.5136 | 34.5136 | 2.3300e-003 | 0.0000 | 34.5718 |
| Worker | 0.0209 | 0.0158 | 0.1614 | 4.6000e-004 | 0.0497 | 3.2000e-004 | 0.0500 | 0.0132 | 3.0000e-004 | 0.0135 | 0.0000 | 41.2185 | 41.2185 | 1.1500e-003 | 0.0000 | 41.2473 |
| Total | 0.0245 | 0.1480 | 0.1883 | 8.2000e-004 | 0.0582 | 5.5000e-004 | 0.0588 | 0.0157 | 5.2000e-004 | 0.0162 | 0.0000 | 75.7321 | 75.7321 | 3.4800e-003 | 0.0000 | 75.8191 |

3.5 Paving - 2021

Unmitigated Construction On-Site

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

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3.5 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |
| Total | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |

Mitigated Construction On-Site

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

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3.5 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |
| Total | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.9348 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0109 | 0.0763 | 0.0909 | 1.5000e-004 | | 4.7000e-003 | 4.7000e-003 | | 4.7000e-003 | 4.7000e-003 | 0.0000 | 12.7663 | 12.7663 | 8.8000e-004 | 0.0000 | 12.7882 |
| Total | 0.9458 | 0.0763 | 0.0909 | 1.5000e-004 | | 4.7000e-003 | 4.7000e-003 | | 4.7000e-003 | 4.7000e-003 | 0.0000 | 12.7663 | 12.7663 | 8.8000e-004 | 0.0000 | 12.7882 |

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3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 2.7600e-003 | 2.0900e-003 | 0.0214 | 6.0000e-005 | 6.5800e-003 | 4.0000e-005 | 6.6200e-003 | 1.7500e-003 | 4.0000e-005 | 1.7900e-003 | 0.0000 | 5.4594 | 5.4594 | 1.5000e-004 | 0.0000 | 5.4632 |
| Total | 2.7600e-003 | 2.0900e-003 | 0.0214 | 6.0000e-005 | 6.5800e-003 | 4.0000e-005 | 6.6200e-003 | 1.7500e-003 | 4.0000e-005 | 1.7900e-003 | 0.0000 | 5.4594 | 5.4594 | 1.5000e-004 | 0.0000 | 5.4632 |

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 | 0.9348 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0109 | 0.0763 | 0.0909 | 1.5000e-004 | | 4.7000e-003 | 4.7000e-003 | | 4.7000e-003 | 4.7000e-003 | 0.0000 | 12.7663 | 12.7663 | 8.8000e-004 | 0.0000 | 12.7882 |
| Total | 0.9458 | 0.0763 | 0.0909 | 1.5000e-004 | | 4.7000e-003 | 4.7000e-003 | | 4.7000e-003 | 4.7000e-003 | 0.0000 | 12.7663 | 12.7663 | 8.8000e-004 | 0.0000 | 12.7882 |

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3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 2.7600e-003 | 2.0900e-003 | 0.0214 | 6.0000e-005 | 6.5800e-003 | 4.0000e-005 | 6.6200e-003 | 1.7500e-003 | 4.0000e-005 | 1.7900e-003 | 0.0000 | 5.4594 | 5.4594 | 1.5000e-004 | 0.0000 | 5.4632 |
| Total | 2.7600e-003 | 2.0900e-003 | 0.0214 | 6.0000e-005 | 6.5800e-003 | 4.0000e-005 | 6.6200e-003 | 1.7500e-003 | 4.0000e-005 | 1.7900e-003 | 0.0000 | 5.4594 | 5.4594 | 1.5000e-004 | 0.0000 | 5.4632 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5475 | 4.1752 | 6.9459 | 0.0268 | 2.0147 | 0.0199 | 2.0347 | 0.5400 | 0.0187 | 0.5587 | 0.0000 | 2,482.333 2 | 2,482.333 2 | 0.1307 | 0.0000 | 2,485.600 4 |
| Unmitigated | 0.5475 | 4.1752 | 6.9459 | 0.0268 | 2.0147 | 0.0199 | 2.0347 | 0.5400 | 0.0187 | 0.5587 | 0.0000 | 2,482.333 2 | 2,482.333 2 | 0.1307 | 0.0000 | 2,485.600 4 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-----------------------|-------------------------|----------|----------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Single Family Housing | 1,567.04 | 1,583.64 | 1419.30 | 5,290,796 | 5,290,796 |
| Total | 1,567.04 | 1,583.64 | 1,419.30 | 5,290,796 | 5,290,796 |

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 |
| Single Family Housing | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.549952 | 0.037123 | 0.179649 | 0.119457 | 0.017229 | 0.005267 | 0.017877 | 0.062669 | 0.001348 | 0.001607 | 0.006000 | 0.000812 | 0.001010 |

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 461.0247 | 461.0247 | 0.0190 | 3.9400e-003 | 462.6740 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 461.0247 | 461.0247 | 0.0190 | 3.9400e-003 | 462.6740 |
| NaturalGas Mitigated | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 271.0327 | 271.0327 | 5.1900e-003 | 4.9700e-003 | 272.6433 |
| NaturalGas Unmitigated | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 271.0327 | 271.0327 | 5.1900e-003 | 4.9700e-003 | 272.6433 |

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 | | | | | |
| Single Family Housing | 5.07896e+006 | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 271.0327 | 271.0327 | 5.1900e-003 | 4.9700e-003 | 272.6433 |
| Total | | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 271.0327 | 271.0327 | 5.1900e-003 | 4.9700e-003 | 272.6433 |

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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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Single Family Housing | 5.07896e+006 | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 271.0327 | 271.0327 | 5.1900e-003 | 4.9700e-003 | 272.6433 |
| Total | | 0.0274 | 0.2340 | 0.0996 | 1.4900e-003 | | 0.0189 | 0.0189 | | 0.0189 | 0.0189 | 0.0000 | 271.0327 | 271.0327 | 5.1900e-003 | 4.9700e-003 | 272.6433 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Land Use | kWh/yr | MT/yr | | | |
| Single Family Housing | 1.44694e+006 | 461.0247 | 0.0190 | 3.9400e-003 | 462.6740 |
| Total | | 461.0247 | 0.0190 | 3.9400e-003 | 462.6740 |

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5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Land Use | kWh/yr | MT/yr | | | |
| Single Family Housing | 1.44694e+006 | 461.0247 | 0.0190 | 3.9400e-003 | 462.6740 |
| Total | | 461.0247 | 0.0190 | 3.9400e-003 | 462.6740 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|---------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.2292 | 0.0542 | 1.7303 | 3.1000e-004 | | 0.0122 | 0.0122 | | 0.0122 | 0.0122 | 0.0000 | 42.6591 | 42.6591 | 3.4700e-003 | 7.3000e-004 | 42.9638 |
| Unmitigated | 1.2292 | 0.0542 | 1.7303 | 3.1000e-004 | | 0.0122 | 0.0122 | | 0.0122 | 0.0122 | 0.0000 | 42.6591 | 42.6591 | 3.4700e-003 | 7.3000e-004 | 42.9638 |

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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 | 0.0935 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.0797 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 4.0300e-003 | 0.0344 | 0.0147 | 2.2000e-004 | | 2.7800e-003 | 2.7800e-003 | | 2.7800e-003 | 2.7800e-003 | 0.0000 | 39.8628 | 39.8628 | 7.6000e-004 | 7.3000e-004 | 40.0997 |
| Landscaping | 0.0520 | 0.0198 | 1.7156 | 9.0000e-005 | | 9.4600e-003 | 9.4600e-003 | | 9.4600e-003 | 9.4600e-003 | 0.0000 | 2.7964 | 2.7964 | 2.7100e-003 | 0.0000 | 2.8641 |
| Total | 1.2292 | 0.0542 | 1.7303 | 3.1000e-004 | | 0.0122 | 0.0122 | | 0.0122 | 0.0122 | 0.0000 | 42.6591 | 42.6591 | 3.4700e-003 | 7.3000e-004 | 42.9638 |

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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 | 0.0935 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.0797 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 4.0300e-003 | 0.0344 | 0.0147 | 2.2000e-004 | | 2.7800e-003 | 2.7800e-003 | | 2.7800e-003 | 2.7800e-003 | 0.0000 | 39.8628 | 39.8628 | 7.6000e-004 | 7.3000e-004 | 40.0997 |
| Landscaping | 0.0520 | 0.0198 | 1.7156 | 9.0000e-005 | | 9.4600e-003 | 9.4600e-003 | | 9.4600e-003 | 9.4600e-003 | 0.0000 | 2.7964 | 2.7964 | 2.7100e-003 | 0.0000 | 2.8641 |
| Total | 1.2292 | 0.0542 | 1.7303 | 3.1000e-004 | | 0.0122 | 0.0122 | | 0.0122 | 0.0122 | 0.0000 | 42.6591 | 42.6591 | 3.4700e-003 | 7.3000e-004 | 42.9638 |

7.0 Water Detail

7.1 Mitigation Measures Water

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| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|---------|
| Category | MT/yr | | | |
| Mitigated | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |
| Unmitigated | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|----------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| Single Family Housing | 10.8156 / 6.81851 | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |
| Total | | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |

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7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|----------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| Single Family Housing | 10.8156 / 6.81851 | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |
| Total | | 72.4393 | 0.3553 | 8.9100e-003 | 83.9767 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| | MT/yr | | | |
| Mitigated | 39.5325 | 2.3363 | 0.0000 | 97.9401 |
| Unmitigated | 39.5325 | 2.3363 | 0.0000 | 97.9401 |

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8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Single Family Housing | 194.75 | 39.5325 | 2.3363 | 0.0000 | 97.9401 |
| Total | | 39.5325 | 2.3363 | 0.0000 | 97.9401 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|----------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Single Family Housing | 194.75 | 39.5325 | 2.3363 | 0.0000 | 97.9401 |
| Total | | 39.5325 | 2.3363 | 0.0000 | 97.9401 |

9.0 Operational Offroad

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

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation
