

APPENDIX C

Final Air Quality, Energy, and Greenhouse Gas Emissions Calculations

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

**California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo
South Coast AQMD Air District, Summer**

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------|------|---------------|-------------|--------------------|------------|
| General Office Building | 4.50 | 1000sqft | 0.10 | 4,500.00 | 0 |
| Library | 4.00 | 1000sqft | 0.09 | 4,000.00 | 0 |
| Apartments Low Rise | 5.00 | Dwelling Unit | 0.31 | 4,000.00 | 7 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 9 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MW hr) | 592.74 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

Project Characteristics - Compliance with SCE 2020 33% RPS

Land Use - From Project Description

Construction Phase - Based on construction schedule from Project Description

Off-road Equipment -

Off-road Equipment - Construction phased equipment based on Contractor's projections of construction assumptions.

Off-road Equipment - Construction phased equipment based on Contractor's projections of construction assumptions.

Off-road Equipment - Construction phased equipment based on Contractor's projections of construction assumptions.

Energy Use - Project would be able to fully generate its energy needs. No Electricity or natural gas would be used.

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------------------|---------------|-----------|
| tblAreaMitigation | UseLowVOCPaintParkingCheck | False | True |
| tblConstructionPhase | NumDays | 100.00 | 190.00 |
| tblConstructionPhase | NumDays | 10.00 | 45.00 |
| tblConstructionPhase | NumDays | 1.00 | 20.00 |
| tblEnergyUse | LightingElect | 810.36 | 0.00 |
| tblEnergyUse | LightingElect | 3.77 | 0.00 |
| tblEnergyUse | LightingElect | 3.10 | 0.00 |
| tblEnergyUse | NT24E | 3,172.76 | 0.00 |
| tblEnergyUse | NT24E | 4.62 | 0.00 |
| tblEnergyUse | NT24E | 5.75 | 0.00 |
| tblEnergyUse | NT24NG | 6,384.00 | 0.00 |
| tblEnergyUse | NT24NG | 0.39 | 0.00 |
| tblEnergyUse | NT24NG | 4.45 | 0.00 |
| tblEnergyUse | T24E | 257.27 | 0.00 |
| tblEnergyUse | T24E | 4.60 | 0.00 |
| tblEnergyUse | T24E | 2.25 | 0.00 |
| tblEnergyUse | T24NG | 9,955.77 | 0.00 |

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| | | | |
|---------------------------|----------------------------|----------|----------|
| tblEnergyUse | T24NG | 10.02 | 0.00 |
| tblEnergyUse | T24NG | 13.65 | 0.00 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 4.25 | 0.00 |
| tblFireplaces | NumberNoFireplace | 0.50 | 0.00 |
| tblFireplaces | NumberWood | 0.25 | 0.00 |
| tblGrading | AcresOfGrading | 10.00 | 3.00 |
| tblGrading | MaterialExported | 0.00 | 4,000.00 |
| tblLandUse | LandUseSquareFeet | 5,000.00 | 4,000.00 |
| tblLandUse | Population | 14.00 | 7.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 4.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 4.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 592.74 |
| tblSequestration | NumberOfNewTrees | 0.00 | 27.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripNumber | 105.00 | 30.00 |
| tblTripsAndVMT | HaulingTripNumber | 500.00 | 10.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 100.00 |

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| | | | |
|-----------------|------------------|-------|--------|
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 100.00 |
| tblTripsAndVMT | WorkerTripNumber | 7.00 | 200.00 |
| tblTripsAndVMT | WorkerTripNumber | 1.00 | 40.00 |
| tblVehicleTrips | CC_TL | 8.40 | 0.00 |
| tblVehicleTrips | CC_TL | 8.40 | 0.00 |
| tblVehicleTrips | CC_TTP | 48.00 | 0.00 |
| tblVehicleTrips | CC_TTP | 43.00 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.90 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.90 | 0.00 |
| tblVehicleTrips | CNW_TTP | 19.00 | 0.00 |
| tblVehicleTrips | CNW_TTP | 5.00 | 0.00 |
| tblVehicleTrips | CW_TL | 16.60 | 0.00 |
| tblVehicleTrips | CW_TL | 16.60 | 0.00 |
| tblVehicleTrips | CW_TTP | 33.00 | 0.00 |
| tblVehicleTrips | CW_TTP | 52.00 | 0.00 |
| tblVehicleTrips | DV_TP | 11.00 | 0.00 |
| tblVehicleTrips | DV_TP | 19.00 | 0.00 |
| tblVehicleTrips | DV_TP | 44.00 | 0.00 |
| tblVehicleTrips | HO_TL | 8.70 | 0.00 |
| tblVehicleTrips | HO_TTP | 40.60 | 0.00 |
| tblVehicleTrips | HS_TL | 5.90 | 0.00 |
| tblVehicleTrips | HS_TTP | 19.20 | 0.00 |
| tblVehicleTrips | HW_TL | 14.70 | 0.00 |
| tblVehicleTrips | HW_TTP | 40.20 | 0.00 |
| tblVehicleTrips | PB_TP | 3.00 | 0.00 |
| tblVehicleTrips | PB_TP | 4.00 | 0.00 |
| tblVehicleTrips | PB_TP | 12.00 | 0.00 |

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| | | | |
|-----------------|--------------------|------------|------|
| tblVehicleTrips | PR_TP | 86.00 | 0.00 |
| tblVehicleTrips | PR_TP | 77.00 | 0.00 |
| tblVehicleTrips | PR_TP | 44.00 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 0.00 |
| tblVehicleTrips | ST_TR | 2.46 | 0.00 |
| tblVehicleTrips | ST_TR | 46.55 | 0.00 |
| tblVehicleTrips | SU_TR | 6.07 | 0.00 |
| tblVehicleTrips | SU_TR | 1.05 | 0.00 |
| tblVehicleTrips | SU_TR | 25.49 | 0.00 |
| tblVehicleTrips | WD_TR | 6.59 | 0.00 |
| tblVehicleTrips | WD_TR | 11.03 | 0.00 |
| tblVehicleTrips | WD_TR | 56.24 | 0.00 |
| tblWater | IndoorWaterUseRate | 325,770.13 | 0.00 |
| tblWater | IndoorWaterUseRate | 799,801.87 | 0.00 |
| tblWater | IndoorWaterUseRate | 125,155.63 | 0.00 |
| tblWoodstoves | NumberCatalytic | 0.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 0.25 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, 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 | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | 0.0000 | 2.2800e-003 | 2.2800e-003 | 0.0000 | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | 0.0000 | 2.2800e-003 | 2.2800e-003 | 0.0000 | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |

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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 |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 5/4/2020 | 7/3/2020 | 5 | 45 | |
| 2 | Site Preparation | Site Preparation | 7/6/2020 | 7/31/2020 | 5 | 20 | |
| 3 | Building Construction | Building Construction | 8/3/2020 | 4/23/2021 | 5 | 190 | |
| 4 | Architectural Coating | Architectural Coating | 4/26/2021 | 4/30/2021 | 5 | 5 | |

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 12,750; Non-Residential Outdoor: 4,250; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 1 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Site Preparation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Plate Compactors | 1 | 8.00 | 8 | 0.43 |
| Site Preparation | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 8.00 | 231 | 0.29 |
| Building Construction | Forklifts | 1 | 4.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 100.00 | 0.00 | 30.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 100.00 | 0.00 | 10.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 4 | 200.00 | 2.00 | 10.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 40.00 | 0.00 | 0.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

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3.2 Demolition - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.5041 | 0.0000 | 0.5041 | 0.0763 | 0.0000 | 0.0763 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.5912 | 15.7476 | 13.6656 | 0.0250 | | 0.7970 | 0.7970 | | 0.7491 | 0.7491 | | 2,402.8978 | 2,402.8978 | 0.6230 | | 2,418.4731 |
| Total | 1.5912 | 15.7476 | 13.6656 | 0.0250 | 0.5041 | 0.7970 | 1.3011 | 0.0763 | 0.7491 | 0.8254 | | 2,402.8978 | 2,402.8978 | 0.6230 | | 2,418.4731 |

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 | 5.6500e-003 | 0.1989 | 0.0404 | 5.8000e-004 | 0.0134 | 6.7000e-004 | 0.0141 | 3.6700e-003 | 6.4000e-004 | 4.3100e-003 | | 63.0675 | 63.0675 | 4.1300e-003 | | 63.1707 |
| 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 | 0.4524 | 0.3041 | 4.0882 | 0.0115 | 1.1178 | 8.4800e-003 | 1.1262 | 0.2964 | 7.8100e-003 | 0.3043 | | 1,144.4175 | 1,144.4175 | 0.0329 | | 1,145.2400 |
| Total | 0.4581 | 0.5030 | 4.1286 | 0.0121 | 1.1312 | 9.1500e-003 | 1.1403 | 0.3001 | 8.4500e-003 | 0.3086 | | 1,207.4850 | 1,207.4850 | 0.0370 | | 1,208.4107 |

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3.2 Demolition - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.2268 | 0.0000 | 0.2268 | 0.0343 | 0.0000 | 0.0343 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.5912 | 15.7476 | 13.6656 | 0.0250 | | 0.7970 | 0.7970 | | 0.7491 | 0.7491 | 0.0000 | 2,402.8978 | 2,402.8978 | 0.6230 | | 2,418.4731 |
| Total | 1.5912 | 15.7476 | 13.6656 | 0.0250 | 0.2268 | 0.7970 | 1.0238 | 0.0343 | 0.7491 | 0.7834 | 0.0000 | 2,402.8978 | 2,402.8978 | 0.6230 | | 2,418.4731 |

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 | 5.6500e-003 | 0.1989 | 0.0404 | 5.8000e-004 | 0.0134 | 6.7000e-004 | 0.0141 | 3.6700e-003 | 6.4000e-004 | 4.3100e-003 | | 63.0675 | 63.0675 | 4.1300e-003 | | 63.1707 |
| 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 | 0.4524 | 0.3041 | 4.0882 | 0.0115 | 1.1178 | 8.4800e-003 | 1.1262 | 0.2964 | 7.8100e-003 | 0.3043 | | 1,144.4175 | 1,144.4175 | 0.0329 | | 1,145.2400 |
| Total | 0.4581 | 0.5030 | 4.1286 | 0.0121 | 1.1312 | 9.1500e-003 | 1.1403 | 0.3001 | 8.4500e-003 | 0.3086 | | 1,207.4850 | 1,207.4850 | 0.0370 | | 1,208.4107 |

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3.3 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.2038 | 0.0000 | 6.2038 | 3.3308 | 0.0000 | 3.3308 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6335 | 28.9416 | 15.6192 | 0.0333 | | 1.2965 | 1.2965 | | 1.1935 | 1.1935 | | 3,211.3559 | 3,211.3559 | 1.0311 | | 3,237.1321 |
| Total | 2.6335 | 28.9416 | 15.6192 | 0.0333 | 6.2038 | 1.2965 | 7.5002 | 3.3308 | 1.1935 | 4.5244 | | 3,211.3559 | 3,211.3559 | 1.0311 | | 3,237.1321 |

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 | 4.2400e-003 | 0.1491 | 0.0303 | 4.4000e-004 | 0.0101 | 5.0000e-004 | 0.0106 | 2.7500e-003 | 4.8000e-004 | 3.2300e-003 | | 47.3006 | 47.3006 | 3.0900e-003 | | 47.3780 |
| 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 | 0.4524 | 0.3041 | 4.0882 | 0.0115 | 1.1178 | 8.4800e-003 | 1.1262 | 0.2964 | 7.8100e-003 | 0.3043 | | 1,144.4175 | 1,144.4175 | 0.0329 | | 1,145.2400 |
| Total | 0.4567 | 0.4533 | 4.1185 | 0.0119 | 1.1278 | 8.9800e-003 | 1.1368 | 0.2992 | 8.2900e-003 | 0.3075 | | 1,191.7181 | 1,191.7181 | 0.0360 | | 1,192.6180 |

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3.3 Site Preparation - 2020

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 | | | | | 2.7917 | 0.0000 | 2.7917 | 1.4989 | 0.0000 | 1.4989 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6335 | 28.9416 | 15.6192 | 0.0333 | | 1.2965 | 1.2965 | | 1.1935 | 1.1935 | 0.0000 | 3,211.3559 | 3,211.3559 | 1.0311 | | 3,237.1321 |
| Total | 2.6335 | 28.9416 | 15.6192 | 0.0333 | 2.7917 | 1.2965 | 4.0882 | 1.4989 | 1.1935 | 2.6924 | 0.0000 | 3,211.3559 | 3,211.3559 | 1.0311 | | 3,237.1321 |

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 | 4.2400e-003 | 0.1491 | 0.0303 | 4.4000e-004 | 0.0101 | 5.0000e-004 | 0.0106 | 2.7500e-003 | 4.8000e-004 | 3.2300e-003 | | 47.3006 | 47.3006 | 3.0900e-003 | | 47.3780 |
| 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 | 0.4524 | 0.3041 | 4.0882 | 0.0115 | 1.1178 | 8.4800e-003 | 1.1262 | 0.2964 | 7.8100e-003 | 0.3043 | | 1,144.4175 | 1,144.4175 | 0.0329 | | 1,145.2400 |
| Total | 0.4567 | 0.4533 | 4.1185 | 0.0119 | 1.1278 | 8.9800e-003 | 1.1368 | 0.2992 | 8.2900e-003 | 0.3075 | | 1,191.7181 | 1,191.7181 | 0.0360 | | 1,192.6180 |

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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 | 0.9444 | 10.2506 | 7.2649 | 0.0127 | | 0.5368 | 0.5368 | | 0.4939 | 0.4939 | | 1,234.342 1 | 1,234.342 1 | 0.3992 | | 1,244.322 3 |
| Total | 0.9444 | 10.2506 | 7.2649 | 0.0127 | | 0.5368 | 0.5368 | | 0.4939 | 0.4939 | | 1,234.342 1 | 1,234.342 1 | 0.3992 | | 1,244.322 3 |

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 | 4.5000e-004 | 0.0157 | 3.1900e-003 | 5.0000e-005 | 1.6500e-003 | 5.0000e-005 | 1.7000e-003 | 4.4000e-004 | 5.0000e-005 | 4.9000e-004 | | 4.9790 | 4.9790 | 3.3000e-004 | | 4.9872 |
| Vendor | 6.5700e-003 | 0.2099 | 0.0500 | 5.1000e-004 | 0.0128 | 1.0400e-003 | 0.0138 | 3.6900e-003 | 9.9000e-004 | 4.6800e-003 | | 54.8897 | 54.8897 | 3.4500e-003 | | 54.9759 |
| Worker | 0.9049 | 0.6083 | 8.1764 | 0.0230 | 2.2355 | 0.0170 | 2.2525 | 0.5929 | 0.0156 | 0.6085 | | 2,288.834 9 | 2,288.834 9 | 0.0658 | | 2,290.480 1 |
| Total | 0.9119 | 0.8338 | 8.2295 | 0.0235 | 2.2500 | 0.0181 | 2.2680 | 0.5970 | 0.0167 | 0.6137 | | 2,348.703 6 | 2,348.703 6 | 0.0696 | | 2,350.443 1 |

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3.4 Building Construction - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9444 | 10.2506 | 7.2649 | 0.0127 | | 0.5368 | 0.5368 | | 0.4939 | 0.4939 | 0.0000 | 1,234.342 1 | 1,234.342 1 | 0.3992 | | 1,244.322 3 |
| Total | 0.9444 | 10.2506 | 7.2649 | 0.0127 | | 0.5368 | 0.5368 | | 0.4939 | 0.4939 | 0.0000 | 1,234.342 1 | 1,234.342 1 | 0.3992 | | 1,244.322 3 |

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 | 4.5000e-004 | 0.0157 | 3.1900e-003 | 5.0000e-005 | 1.6500e-003 | 5.0000e-005 | 1.7000e-003 | 4.4000e-004 | 5.0000e-005 | 4.9000e-004 | | 4.9790 | 4.9790 | 3.3000e-004 | | 4.9872 |
| Vendor | 6.5700e-003 | 0.2099 | 0.0500 | 5.1000e-004 | 0.0128 | 1.0400e-003 | 0.0138 | 3.6900e-003 | 9.9000e-004 | 4.6800e-003 | | 54.8897 | 54.8897 | 3.4500e-003 | | 54.9759 |
| Worker | 0.9049 | 0.6083 | 8.1764 | 0.0230 | 2.2355 | 0.0170 | 2.2525 | 0.5929 | 0.0156 | 0.6085 | | 2,288.834 9 | 2,288.834 9 | 0.0658 | | 2,290.480 1 |
| Total | 0.9119 | 0.8338 | 8.2295 | 0.0235 | 2.2500 | 0.0181 | 2.2680 | 0.5970 | 0.0167 | 0.6137 | | 2,348.703 6 | 2,348.703 6 | 0.0696 | | 2,350.443 1 |

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

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 | 0.8521 | 9.2305 | 7.0872 | 0.0128 | | 0.4623 | 0.4623 | | 0.4253 | 0.4253 | | 1,234.5543 | 1,234.5543 | 0.3993 | | 1,244.5363 |
| Total | 0.8521 | 9.2305 | 7.0872 | 0.0128 | | 0.4623 | 0.4623 | | 0.4253 | 0.4253 | | 1,234.5543 | 1,234.5543 | 0.3993 | | 1,244.5363 |

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 | 4.3000e-004 | 0.0146 | 3.1600e-003 | 5.0000e-005 | 2.1300e-003 | 5.0000e-005 | 2.1800e-003 | 5.5000e-004 | 5.0000e-005 | 6.0000e-004 | | 4.9267 | 4.9267 | 3.2000e-004 | | 4.9347 |
| Vendor | 5.5700e-003 | 0.1908 | 0.0453 | 5.1000e-004 | 0.0128 | 3.8000e-004 | 0.0132 | 3.6900e-003 | 3.7000e-004 | 4.0500e-003 | | 54.4877 | 54.4877 | 3.3000e-003 | | 54.5701 |
| Worker | 0.8442 | 0.5475 | 7.5345 | 0.0222 | 2.2355 | 0.0165 | 2.2520 | 0.5929 | 0.0152 | 0.6080 | | 2,214.8066 | 2,214.8066 | 0.0596 | | 2,216.2956 |
| Total | 0.8502 | 0.7528 | 7.5829 | 0.0228 | 2.2505 | 0.0169 | 2.2673 | 0.5971 | 0.0156 | 0.6127 | | 2,274.2210 | 2,274.2210 | 0.0632 | | 2,275.8004 |

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

3.4 Building Construction - 2021

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8521 | 9.2305 | 7.0872 | 0.0128 | | 0.4623 | 0.4623 | | 0.4253 | 0.4253 | 0.0000 | 1,234.5543 | 1,234.5543 | 0.3993 | | 1,244.5363 |
| Total | 0.8521 | 9.2305 | 7.0872 | 0.0128 | | 0.4623 | 0.4623 | | 0.4253 | 0.4253 | 0.0000 | 1,234.5543 | 1,234.5543 | 0.3993 | | 1,244.5363 |

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 | 4.3000e-004 | 0.0146 | 3.1600e-003 | 5.0000e-005 | 2.1300e-003 | 5.0000e-005 | 2.1800e-003 | 5.5000e-004 | 5.0000e-005 | 6.0000e-004 | | 4.9267 | 4.9267 | 3.2000e-004 | | 4.9347 |
| Vendor | 5.5700e-003 | 0.1908 | 0.0453 | 5.1000e-004 | 0.0128 | 3.8000e-004 | 0.0132 | 3.6900e-003 | 3.7000e-004 | 4.0500e-003 | | 54.4877 | 54.4877 | 3.3000e-003 | | 54.5701 |
| Worker | 0.8442 | 0.5475 | 7.5345 | 0.0222 | 2.2355 | 0.0165 | 2.2520 | 0.5929 | 0.0152 | 0.6080 | | 2,214.8066 | 2,214.8066 | 0.0596 | | 2,216.2956 |
| Total | 0.8502 | 0.7528 | 7.5829 | 0.0228 | 2.2505 | 0.0169 | 2.2673 | 0.5971 | 0.0156 | 0.6127 | | 2,274.2210 | 2,274.2210 | 0.0632 | | 2,275.8004 |

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

3.5 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 | 20.7648 | | | | | 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 | 20.9837 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

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 | 0.1689 | 0.1095 | 1.5069 | 4.4500e-003 | 0.4471 | 3.2900e-003 | 0.4504 | 0.1186 | 3.0300e-003 | 0.1216 | | 442.9613 | 442.9613 | 0.0119 | | 443.2591 |
| Total | 0.1689 | 0.1095 | 1.5069 | 4.4500e-003 | 0.4471 | 3.2900e-003 | 0.4504 | 0.1186 | 3.0300e-003 | 0.1216 | | 442.9613 | 442.9613 | 0.0119 | | 443.2591 |

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

3.5 Architectural Coating - 2021

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 | 20.7648 | | | | | 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 | 20.9837 | 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 |

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 | 0.1689 | 0.1095 | 1.5069 | 4.4500e-003 | 0.4471 | 3.2900e-003 | 0.4504 | 0.1186 | 3.0300e-003 | 0.1216 | | 442.9613 | 442.9613 | 0.0119 | | 443.2591 |
| Total | 0.1689 | 0.1095 | 1.5069 | 4.4500e-003 | 0.4471 | 3.2900e-003 | 0.4504 | 0.1186 | 3.0300e-003 | 0.1216 | | 442.9613 | 442.9613 | 0.0119 | | 443.2591 |

4.0 Operational Detail - Mobile

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 0.00 | 0.00 | 0.00 | | |
| Library | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| General Office Building | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Library | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |
| General Office Building | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |
| Library | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Kilowatt Hours of Renewable Electricity Generated

Percent of Electricity Use Generated with Renewable Energy

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

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5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Library | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Low Rise | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Library | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

6.0 Area Detail

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Summer

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |
| Unmitigated | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |

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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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0284 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.2475 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0126 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | | 0.7446 | 0.7446 | 7.2000e-004 | | 0.7627 |
| Total | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, 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 | 0.0284 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.2475 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0126 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | | 0.7446 | 0.7446 | 7.2000e-004 | | 0.7627 |
| Total | 0.2886 | 4.7800e-003 | 0.4143 | 2.0000e-005 | | 2.2800e-003 | 2.2800e-003 | | 2.2800e-003 | 2.2800e-003 | 0.0000 | 0.7446 | 0.7446 | 7.2000e-004 | 0.0000 | 0.7627 |

7.0 Water Detail

7.1 Mitigation Measures Water

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System
- Use Water Efficient Landscaping

8.0 Waste Detail

California State University, Long Beach Housing Expansion Phase 1 - Earl Warren Drive - South Coast AQMD Air District, Summer

**California State University, Long Beach Housing Expansion Phase 1 - Earl Warren Drive
South Coast AQMD Air District, Summer**

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|------|--------|-------------|--------------------|------------|
| Other Asphalt Surfaces | 0.75 | Acre | 0.75 | 32,670.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 9 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 592.74 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Compliance with SCE 2020 33% RPS

Land Use - Demolition and Construction of Earl Warren Drive would disturb approximately 0.75 acres.

Construction Phase - From Project Description. Demolition and construction would last approximately seven months

Off-road Equipment - From Construction Assumptions

Off-road Equipment - From Construction Assumptions

Off-road Equipment - 2 loaders/backhoe required for site preparation

Grading - Demolition and construction of Earl Warren Drive would disturb approximately 0.75 acres. Limited utility trenching requires excavation of 6 feet for 370 feet (assumes 6ft in width) - 260 cubic yards of material

Vehicle Trips - Earl Warren Drive will accommodate an existing student population. No new trip generation anticipated.

Energy Use -

Mobile Land Use Mitigation -

Operational Off-Road Equipment - No off-road equipment

Trips and VMT - Number of construction workers required for project not included in PD. Assume 10 workers/day for demolition, 20 workers/day for site prep, and 10 workers/day for service

Area Mitigation -

| Table Name | Column Name | Default Value | New Value |
|---------------------------|----------------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblConstructionPhase | NumDays | 1.00 | 125.00 |
| tblGrading | AcresOfGrading | 10.00 | 0.75 |
| tblGrading | MaterialExported | 0.00 | 360.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 592.74 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripNumber | 45.00 | 46.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 20.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 40.00 |
| tblVehicleTrips | CC_TL | 8.40 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.90 | 0.00 |
| tblVehicleTrips | CW_TL | 16.60 | 0.00 |

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 1.4620 | 9.9275 | 11.1187 | 0.0200 | 0.4612 | 0.4824 | 0.8761 | 0.1213 | 0.4473 | 0.5176 | 0.0000 | 1,903.3857 | 1,903.3857 | 0.4737 | 0.0000 | 1,915.2272 |
| Maximum | 1.4620 | 9.9275 | 11.1187 | 0.0200 | 0.4612 | 0.4824 | 0.8761 | 0.1213 | 0.4473 | 0.5176 | 0.0000 | 1,903.3857 | 1,903.3857 | 0.4737 | 0.0000 | 1,915.2272 |

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 1.4620 | 9.9275 | 11.1187 | 0.0200 | 0.4612 | 0.4824 | 0.8761 | 0.1213 | 0.4473 | 0.5176 | 0.0000 | 1,903.3857 | 1,903.3857 | 0.4737 | 0.0000 | 1,915.2272 |
| Maximum | 1.4620 | 9.9275 | 11.1187 | 0.0200 | 0.4612 | 0.4824 | 0.8761 | 0.1213 | 0.4473 | 0.5176 | 0.0000 | 1,903.3857 | 1,903.3857 | 0.4737 | 0.0000 | 1,915.2272 |

| | ROG | NOx | CO | SO2 | 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 |

2.2 Overall Operational

Unmitigated Operational

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

| Category | lb/day | | | | | | | | | | lb/day | | | | | |
|--------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|--------------------|--------------------|---------------|---------------|--------------------|
| Area | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.8000e-004 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 0.0000 | 1.8000e-004 |

| | ROG | NOx | CO | SO2 | 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 | Demolition | Demolition | 1/4/2021 | 1/8/2021 | 5 | 5 | |

| | | | | | | |
|---|------------------|------------------|-----------|-----------|---|-----|
| 2 | Site Preparation | Site Preparation | 2/1/2021 | 7/23/2021 | 5 | 125 |
| 3 | Paving | Paving | 7/26/2021 | 7/30/2021 | 5 | 5 |

Acres of Grading (Site Preparation Phase): 0.75

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.75

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 1 | 8.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 4 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 40.00 | 0.00 | 46.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 8 | 20.00 | 6.00 | 0.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Demolition - 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 | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| Total | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |

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 | 0.0844 | 0.0548 | 0.7535 | 2.2200e-003 | 0.2236 | 1.6500e-003 | 0.2252 | 0.0593 | 1.5200e-003 | 0.0608 | | 221.4807 | 221.4807 | 5.9600e-003 | | 221.6296 |
| Total | 0.0844 | 0.0548 | 0.7535 | 2.2200e-003 | 0.2236 | 1.6500e-003 | 0.2252 | 0.0593 | 1.5200e-003 | 0.0608 | | 221.4807 | 221.4807 | 5.9600e-003 | | 221.6296 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | 0.0000 | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |
| Total | 0.7965 | 7.2530 | 7.5691 | 0.0120 | | 0.4073 | 0.4073 | | 0.3886 | 0.3886 | 0.0000 | 1,147.4338 | 1,147.4338 | 0.2138 | | 1,152.7797 |

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 | 0.0844 | 0.0548 | 0.7535 | 2.2200e-003 | 0.2236 | 1.6500e-003 | 0.2252 | 0.0593 | 1.5200e-003 | 0.0608 | | 221.4807 | 221.4807 | 5.9600e-003 | | 221.6296 |
| Total | 0.0844 | 0.0548 | 0.7535 | 2.2200e-003 | 0.2236 | 1.6500e-003 | 0.2252 | 0.0593 | 1.5200e-003 | 0.0608 | | 221.4807 | 221.4807 | 5.9600e-003 | | 221.6296 |

3.3 Site Preparation - 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 | | | | | |
| Fugitive Dust | | | | | 6.6900e-003 | 0.0000 | 6.6900e-003 | 7.4000e-004 | 0.0000 | 7.4000e-004 | | | 0.0000 | | | 0.0000 |

| | | | | | | | | | | | | | | | | |
|--------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|--|-------------------|-------------------|---------------|--|-------------------|
| Off-Road | 0.8275 | 9.7162 | 6.2877 | 0.0128 | | 0.4112 | 0.4112 | | 0.3783 | 0.3783 | | 1,243.4843 | 1,243.4843 | 0.4022 | | 1,253.5385 |
| Total | 0.8275 | 9.7162 | 6.2877 | 0.0128 | 6.6900e-003 | 0.4112 | 0.4179 | 7.4000e-004 | 0.3783 | 0.3791 | | 1,243.4843 | 1,243.4843 | 0.4022 | | 1,253.5385 |

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 | 2.9800e-003 | 0.1018 | 0.0221 | 3.2000e-004 | 7.3900e-003 | 3.3000e-004 | 7.7200e-003 | 2.0300e-003 | 3.2000e-004 | 2.3400e-003 | | 34.4474 | 34.4474 | 2.2400e-003 | | 34.5035 |
| 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 | 0.1689 | 0.1095 | 1.5069 | 4.4500e-003 | 0.4471 | 3.2900e-003 | 0.4504 | 0.1186 | 3.0300e-003 | 0.1216 | | 442.9613 | 442.9613 | 0.0119 | | 443.2591 |
| Total | 0.1718 | 0.2113 | 1.5290 | 4.7700e-003 | 0.4545 | 3.6200e-003 | 0.4581 | 0.1206 | 3.3500e-003 | 0.1240 | | 477.4087 | 477.4087 | 0.0142 | | 477.7626 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|--------------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.6900e-003 | 0.0000 | 6.6900e-003 | 7.4000e-004 | 0.0000 | 7.4000e-004 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.8275 | 9.7162 | 6.2877 | 0.0128 | | 0.4112 | 0.4112 | | 0.3783 | 0.3783 | 0.0000 | 1,243.4843 | 1,243.4843 | 0.4022 | | 1,253.5385 |
| Total | 0.8275 | 9.7162 | 6.2877 | 0.0128 | 6.6900e-003 | 0.4112 | 0.4179 | 7.4000e-004 | 0.3783 | 0.3791 | 0.0000 | 1,243.4843 | 1,243.4843 | 0.4022 | | 1,253.5385 |

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 | 2.9800e-003 | 0.1018 | 0.0221 | 3.2000e-004 | 7.3900e-003 | 3.3000e-004 | 7.7200e-003 | 2.0300e-003 | 3.2000e-004 | 2.3400e-003 | | 34.4474 | 34.4474 | 2.2400e-003 | | | 34.5035 |
| 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 | 0.1689 | 0.1095 | 1.5069 | 4.4500e-003 | 0.4471 | 3.2900e-003 | 0.4504 | 0.1186 | 3.0300e-003 | 0.1216 | | 442.9613 | 442.9613 | 0.0119 | | | 443.2591 |
| Total | 0.1718 | 0.2113 | 1.5290 | 4.7700e-003 | 0.4545 | 3.6200e-003 | 0.4581 | 0.1206 | 3.3500e-003 | 0.1240 | | 477.4087 | 477.4087 | 0.0142 | | | 477.7626 |

3.4 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 | 0.9679 | 9.2229 | 10.2294 | 0.0163 | | 0.4796 | 0.4796 | | 0.4447 | 0.4447 | | 1,518.4420 | 1,518.4420 | 0.4578 | | | 1,529.8873 |
| Paving | 0.3930 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | | 0.0000 |
| Total | 1.3609 | 9.2229 | 10.2294 | 0.0163 | | 0.4796 | 0.4796 | | 0.4447 | 0.4447 | | 1,518.4420 | 1,518.4420 | 0.4578 | | | 1,529.8873 |

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 | 0.0167 | 0.5723 | 0.1358 | 1.5300e-003 | 0.0384 | 1.1500e-003 | 0.0396 | 0.0111 | 1.1000e-003 | 0.0122 | 163.4631 | 163.4631 | 9.8900e-003 | 163.7103 |
| Worker | 0.0844 | 0.0548 | 0.7535 | 2.2200e-003 | 0.2236 | 1.6500e-003 | 0.2252 | 0.0593 | 1.5200e-003 | 0.0608 | 221.4807 | 221.4807 | 5.9600e-003 | 221.6296 |
| Total | 0.1011 | 0.6270 | 0.8893 | 3.7500e-003 | 0.2620 | 2.8000e-003 | 0.2648 | 0.0704 | 2.6200e-003 | 0.0730 | 384.9437 | 384.9437 | 0.0159 | 385.3398 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9679 | 9.2229 | 10.2294 | 0.0163 | | 0.4796 | 0.4796 | | 0.4447 | 0.4447 | 0.0000 | 1,518.4420 | 1,518.4420 | 0.4578 | | 1,529.8873 |
| Paving | 0.3930 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.3609 | 9.2229 | 10.2294 | 0.0163 | | 0.4796 | 0.4796 | | 0.4447 | 0.4447 | 0.0000 | 1,518.4420 | 1,518.4420 | 0.4578 | | 1,529.8873 |

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 | 0.0167 | 0.5723 | 0.1358 | 1.5300e-003 | 0.0384 | 1.1500e-003 | 0.0396 | 0.0111 | 1.1000e-003 | 0.0122 | 163.4631 | 163.4631 | 9.8900e-003 | | | 163.7103 |

| | | | | | | | | | | | | | | | | |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|---------------|--|-----------------|
| Worker | 0.0844 | 0.0548 | 0.7535 | 2.2200e-003 | 0.2236 | 1.6500e-003 | 0.2252 | 0.0593 | 1.5200e-003 | 0.0608 | | 221.4807 | 221.4807 | 5.9600e-003 | | 221.6296 |
| Total | 0.1011 | 0.6270 | 0.8893 | 3.7500e-003 | 0.2620 | 2.8000e-003 | 0.2648 | 0.0704 | 2.6200e-003 | 0.0730 | | 384.9437 | 384.9437 | 0.0159 | | 385.3398 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|-------------|-------------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

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- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Other Asphalt Surfaces | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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 | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |
| Unmitigated | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |

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 | 2.4900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0116 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |
| Total | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |

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 | 2.4900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0116 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |
| Total | 0.0141 | 0.0000 | 8.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | | 1.8000e-004 |

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 |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
| | 0 | 0.00 | 0 | | | Diesel |

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

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Annual

**California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------|------|---------------|-------------|--------------------|------------|
| General Office Building | 4.50 | 1000sqft | 0.10 | 4,500.00 | 0 |
| Library | 4.00 | 1000sqft | 0.09 | 4,000.00 | 0 |
| Apartments Low Rise | 5.00 | Dwelling Unit | 0.31 | 4,000.00 | 7 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 9 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MW hr) | 592.74 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Annual

Project Characteristics - Compliance with SCE 2020 33% RPS

Land Use - From Project Description

Construction Phase - Based on construction schedule from Project Description

Off-road Equipment -

Off-road Equipment - Construction phased equipment based on Contractor's projections of construction assumptions.

Off-road Equipment - Construction phased equipment based on Contractor's projections of construction assumptions.

Off-road Equipment - Construction phased equipment based on Contractor's projections of construction assumptions.

Energy Use - Project would be able to fully generate its energy needs. No Electricity or natural gas would be used.

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------------------|---------------|-----------|
| tblAreaMitigation | UseLowVOCPaintParkingCheck | False | True |
| tblConstructionPhase | NumDays | 100.00 | 190.00 |
| tblConstructionPhase | NumDays | 10.00 | 45.00 |
| tblConstructionPhase | NumDays | 1.00 | 20.00 |
| tblEnergyUse | LightingElect | 810.36 | 0.00 |
| tblEnergyUse | LightingElect | 3.77 | 0.00 |
| tblEnergyUse | LightingElect | 3.10 | 0.00 |
| tblEnergyUse | NT24E | 3,172.76 | 0.00 |
| tblEnergyUse | NT24E | 4.62 | 0.00 |
| tblEnergyUse | NT24E | 5.75 | 0.00 |
| tblEnergyUse | NT24NG | 6,384.00 | 0.00 |
| tblEnergyUse | NT24NG | 0.39 | 0.00 |
| tblEnergyUse | NT24NG | 4.45 | 0.00 |
| tblEnergyUse | T24E | 257.27 | 0.00 |
| tblEnergyUse | T24E | 4.60 | 0.00 |
| tblEnergyUse | T24E | 2.25 | 0.00 |
| tblEnergyUse | T24NG | 9,955.77 | 0.00 |

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| | | | |
|---------------------------|----------------------------|----------|----------|
| tblEnergyUse | T24NG | 10.02 | 0.00 |
| tblEnergyUse | T24NG | 13.65 | 0.00 |
| tblFireplaces | FireplaceDayYear | 25.00 | 0.00 |
| tblFireplaces | FireplaceHourDay | 3.00 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberGas | 4.25 | 0.00 |
| tblFireplaces | NumberNoFireplace | 0.50 | 0.00 |
| tblFireplaces | NumberWood | 0.25 | 0.00 |
| tblGrading | AcresOfGrading | 10.00 | 3.00 |
| tblGrading | MaterialExported | 0.00 | 4,000.00 |
| tblLandUse | LandUseSquareFeet | 5,000.00 | 4,000.00 |
| tblLandUse | Population | 14.00 | 7.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 4.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 4.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 592.74 |
| tblSequestration | NumberOfNewTrees | 0.00 | 27.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripNumber | 105.00 | 30.00 |
| tblTripsAndVMT | HaulingTripNumber | 500.00 | 10.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 100.00 |

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| | | | |
|-----------------|------------------|-------|--------|
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 100.00 |
| tblTripsAndVMT | WorkerTripNumber | 7.00 | 200.00 |
| tblTripsAndVMT | WorkerTripNumber | 1.00 | 40.00 |
| tblVehicleTrips | CC_TL | 8.40 | 0.00 |
| tblVehicleTrips | CC_TL | 8.40 | 0.00 |
| tblVehicleTrips | CC_TTP | 48.00 | 0.00 |
| tblVehicleTrips | CC_TTP | 43.00 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.90 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.90 | 0.00 |
| tblVehicleTrips | CNW_TTP | 19.00 | 0.00 |
| tblVehicleTrips | CNW_TTP | 5.00 | 0.00 |
| tblVehicleTrips | CW_TL | 16.60 | 0.00 |
| tblVehicleTrips | CW_TL | 16.60 | 0.00 |
| tblVehicleTrips | CW_TTP | 33.00 | 0.00 |
| tblVehicleTrips | CW_TTP | 52.00 | 0.00 |
| tblVehicleTrips | DV_TP | 11.00 | 0.00 |
| tblVehicleTrips | DV_TP | 19.00 | 0.00 |
| tblVehicleTrips | DV_TP | 44.00 | 0.00 |
| tblVehicleTrips | HO_TL | 8.70 | 0.00 |
| tblVehicleTrips | HO_TTP | 40.60 | 0.00 |
| tblVehicleTrips | HS_TL | 5.90 | 0.00 |
| tblVehicleTrips | HS_TTP | 19.20 | 0.00 |
| tblVehicleTrips | HW_TL | 14.70 | 0.00 |
| tblVehicleTrips | HW_TTP | 40.20 | 0.00 |
| tblVehicleTrips | PB_TP | 3.00 | 0.00 |
| tblVehicleTrips | PB_TP | 4.00 | 0.00 |
| tblVehicleTrips | PB_TP | 12.00 | 0.00 |

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| | | | |
|-----------------|--------------------|------------|------|
| tblVehicleTrips | PR_TP | 86.00 | 0.00 |
| tblVehicleTrips | PR_TP | 77.00 | 0.00 |
| tblVehicleTrips | PR_TP | 44.00 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 0.00 |
| tblVehicleTrips | ST_TR | 2.46 | 0.00 |
| tblVehicleTrips | ST_TR | 46.55 | 0.00 |
| tblVehicleTrips | SU_TR | 6.07 | 0.00 |
| tblVehicleTrips | SU_TR | 1.05 | 0.00 |
| tblVehicleTrips | SU_TR | 25.49 | 0.00 |
| tblVehicleTrips | WD_TR | 6.59 | 0.00 |
| tblVehicleTrips | WD_TR | 11.03 | 0.00 |
| tblVehicleTrips | WD_TR | 56.24 | 0.00 |
| tblWater | IndoorWaterUseRate | 325,770.13 | 0.00 |
| tblWater | IndoorWaterUseRate | 799,801.87 | 0.00 |
| tblWater | IndoorWaterUseRate | 125,155.63 | 0.00 |
| tblWoodstoves | NumberCatalytic | 0.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 0.25 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

2.0 Emissions Summary

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commo - South Coast AQMD Air District, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 5-4-2020 | 8-3-2020 | 0.7049 | 0.7049 |
| 2 | 8-4-2020 | 11-3-2020 | 0.4269 | 0.4269 |
| 3 | 11-4-2020 | 2-3-2021 | 0.4144 | 0.4144 |
| 4 | 2-4-2021 | 5-3-2021 | 0.3730 | 0.3730 |
| | | Highest | 0.7049 | 0.7049 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|---------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.0644 | 0.0000 | 2.0644 | 0.1220 | 0.0000 | 5.1145 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.6625 | 2.6625 | 1.3000e-004 | 3.0000e-005 | 2.6738 |
| Total | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | 0.0000 | 2.9000e-004 | 2.9000e-004 | 0.0000 | 2.9000e-004 | 2.9000e-004 | 2.0644 | 2.7469 | 4.8113 | 0.1222 | 3.0000e-005 | 7.8748 |

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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 | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | -0.0239 | -0.0239 | 0.0000 | 0.0000 | -0.0240 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.0644 | 0.0000 | 2.0644 | 0.1220 | 0.0000 | 5.1145 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5001 | 2.5001 | 1.2000e-004 | 3.0000e-005 | 2.5107 |
| Total | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | 0.0000 | 2.9000e-004 | 2.9000e-004 | 0.0000 | 2.9000e-004 | 2.9000e-004 | 2.0644 | 2.5606 | 4.6250 | 0.1222 | 3.0000e-005 | 7.6876 |

| | ROG | NOx | CO | SO2 | 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 | 6.78 | 3.87 | 0.01 | 0.00 | 2.38 |

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2.3 Vegetation

Vegetation

| | |
|--------------|----------------|
| | CO2e |
| Category | MT |
| New Trees | 19.1160 |
| Total | 19.1160 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 5/4/2020 | 7/3/2020 | 5 | 45 | |
| 2 | Site Preparation | Site Preparation | 7/6/2020 | 7/31/2020 | 5 | 20 | |
| 3 | Building Construction | Building Construction | 8/3/2020 | 4/23/2021 | 5 | 190 | |
| 4 | Architectural Coating | Architectural Coating | 4/26/2021 | 4/30/2021 | 5 | 5 | |

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 8,100; Residential Outdoor: 2,700; Non-Residential Indoor: 12,750; Non-Residential Outdoor: 4,250; Striped Parking Area: 0 (Architectural Coating – sqft)

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OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 1 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Site Preparation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Plate Compactors | 1 | 8.00 | 8 | 0.43 |
| Site Preparation | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 8.00 | 231 | 0.29 |
| Building Construction | Forklifts | 1 | 4.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 100.00 | 0.00 | 30.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 100.00 | 0.00 | 10.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 4 | 200.00 | 2.00 | 10.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 40.00 | 0.00 | 0.00 | 14.70 | 6.90 | 23.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

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Water Exposed Area

3.2 Demolition - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0113 | 0.0000 | 0.0113 | 1.7200e-003 | 0.0000 | 1.7200e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0358 | 0.3543 | 0.3075 | 5.6000e-004 | | 0.0179 | 0.0179 | | 0.0169 | 0.0169 | 0.0000 | 49.0471 | 49.0471 | 0.0127 | 0.0000 | 49.3650 |
| Total | 0.0358 | 0.3543 | 0.3075 | 5.6000e-004 | 0.0113 | 0.0179 | 0.0293 | 1.7200e-003 | 0.0169 | 0.0186 | 0.0000 | 49.0471 | 49.0471 | 0.0127 | 0.0000 | 49.3650 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-004 | 4.6200e-003 | 9.4000e-004 | 1.0000e-005 | 3.0000e-004 | 2.0000e-005 | 3.1000e-004 | 8.0000e-005 | 1.0000e-005 | 1.0000e-004 | 0.0000 | 1.2785 | 1.2785 | 9.0000e-005 | 0.0000 | 1.2806 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0100 | 7.7000e-003 | 0.0852 | 2.5000e-004 | 0.0247 | 1.9000e-004 | 0.0249 | 6.5600e-003 | 1.8000e-004 | 6.7300e-003 | 0.0000 | 22.2225 | 22.2225 | 6.4000e-004 | 0.0000 | 22.2384 |
| Total | 0.0102 | 0.0123 | 0.0862 | 2.6000e-004 | 0.0250 | 2.1000e-004 | 0.0252 | 6.6400e-003 | 1.9000e-004 | 6.8300e-003 | 0.0000 | 23.5010 | 23.5010 | 7.3000e-004 | 0.0000 | 23.5191 |

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3.2 Demolition - 2020

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 | | | | | 5.1000e-003 | 0.0000 | 5.1000e-003 | 7.7000e-004 | 0.0000 | 7.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0358 | 0.3543 | 0.3075 | 5.6000e-004 | | 0.0179 | 0.0179 | | 0.0169 | 0.0169 | 0.0000 | 49.0471 | 49.0471 | 0.0127 | 0.0000 | 49.3650 |
| Total | 0.0358 | 0.3543 | 0.3075 | 5.6000e-004 | 5.1000e-003 | 0.0179 | 0.0230 | 7.7000e-004 | 0.0169 | 0.0176 | 0.0000 | 49.0471 | 49.0471 | 0.0127 | 0.0000 | 49.3650 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-004 | 4.6200e-003 | 9.4000e-004 | 1.0000e-005 | 3.0000e-004 | 2.0000e-005 | 3.1000e-004 | 8.0000e-005 | 1.0000e-005 | 1.0000e-004 | 0.0000 | 1.2785 | 1.2785 | 9.0000e-005 | 0.0000 | 1.2806 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0100 | 7.7000e-003 | 0.0852 | 2.5000e-004 | 0.0247 | 1.9000e-004 | 0.0249 | 6.5600e-003 | 1.8000e-004 | 6.7300e-003 | 0.0000 | 22.2225 | 22.2225 | 6.4000e-004 | 0.0000 | 22.2384 |
| Total | 0.0102 | 0.0123 | 0.0862 | 2.6000e-004 | 0.0250 | 2.1000e-004 | 0.0252 | 6.6400e-003 | 1.9000e-004 | 6.8300e-003 | 0.0000 | 23.5010 | 23.5010 | 7.3000e-004 | 0.0000 | 23.5191 |

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3.3 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0620 | 0.0000 | 0.0620 | 0.0333 | 0.0000 | 0.0333 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0263 | 0.2894 | 0.1562 | 3.3000e-004 | | 0.0130 | 0.0130 | | 0.0119 | 0.0119 | 0.0000 | 29.1329 | 29.1329 | 9.3500e-003 | 0.0000 | 29.3668 |
| Total | 0.0263 | 0.2894 | 0.1562 | 3.3000e-004 | 0.0620 | 0.0130 | 0.0750 | 0.0333 | 0.0119 | 0.0453 | 0.0000 | 29.1329 | 29.1329 | 9.3500e-003 | 0.0000 | 29.3668 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 4.0000e-005 | 1.5400e-003 | 3.1000e-004 | 0.0000 | 1.0000e-004 | 1.0000e-005 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.4262 | 0.4262 | 3.0000e-005 | 0.0000 | 0.4269 |
| 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 | 4.4600e-003 | 3.4200e-003 | 0.0379 | 1.1000e-004 | 0.0110 | 8.0000e-005 | 0.0111 | 2.9100e-003 | 8.0000e-005 | 2.9900e-003 | 0.0000 | 9.8767 | 9.8767 | 2.8000e-004 | 0.0000 | 9.8838 |
| Total | 4.5000e-003 | 4.9600e-003 | 0.0382 | 1.1000e-004 | 0.0111 | 9.0000e-005 | 0.0112 | 2.9400e-003 | 8.0000e-005 | 3.0200e-003 | 0.0000 | 10.3028 | 10.3028 | 3.1000e-004 | 0.0000 | 10.3106 |

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3.3 Site Preparation - 2020

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 | | | | | 0.0279 | 0.0000 | 0.0279 | 0.0150 | 0.0000 | 0.0150 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0263 | 0.2894 | 0.1562 | 3.3000e-004 | | 0.0130 | 0.0130 | | 0.0119 | 0.0119 | 0.0000 | 29.1329 | 29.1329 | 9.3500e-003 | 0.0000 | 29.3667 |
| Total | 0.0263 | 0.2894 | 0.1562 | 3.3000e-004 | 0.0279 | 0.0130 | 0.0409 | 0.0150 | 0.0119 | 0.0269 | 0.0000 | 29.1329 | 29.1329 | 9.3500e-003 | 0.0000 | 29.3667 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 4.0000e-005 | 1.5400e-003 | 3.1000e-004 | 0.0000 | 1.0000e-004 | 1.0000e-005 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.4262 | 0.4262 | 3.0000e-005 | 0.0000 | 0.4269 |
| 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 | 4.4600e-003 | 3.4200e-003 | 0.0379 | 1.1000e-004 | 0.0110 | 8.0000e-005 | 0.0111 | 2.9100e-003 | 8.0000e-005 | 2.9900e-003 | 0.0000 | 9.8767 | 9.8767 | 2.8000e-004 | 0.0000 | 9.8838 |
| Total | 4.5000e-003 | 4.9600e-003 | 0.0382 | 1.1000e-004 | 0.0111 | 9.0000e-005 | 0.0112 | 2.9400e-003 | 8.0000e-005 | 3.0200e-003 | 0.0000 | 10.3028 | 10.3028 | 3.1000e-004 | 0.0000 | 10.3106 |

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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 | 0.0515 | 0.5587 | 0.3959 | 6.9000e-004 | | 0.0293 | 0.0293 | | 0.0269 | 0.0269 | 0.0000 | 61.0278 | 61.0278 | 0.0197 | 0.0000 | 61.5213 |
| Total | 0.0515 | 0.5587 | 0.3959 | 6.9000e-004 | | 0.0293 | 0.0293 | | 0.0269 | 0.0269 | 0.0000 | 61.0278 | 61.0278 | 0.0197 | 0.0000 | 61.5213 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------------|-----------------|--------------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.0000e-005 | 8.8000e-004 | 1.8000e-004 | 0.0000 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.2445 | 0.2445 | 2.0000e-005 | 0.0000 | 0.2449 |
| Vendor | 3.7000e-004 | 0.0116 | 2.8800e-003 | 3.0000e-005 | 6.9000e-004 | 6.0000e-005 | 7.4000e-004 | 2.0000e-004 | 5.0000e-005 | 2.5000e-004 | 0.0000 | 2.6809 | 2.6809 | 1.8000e-004 | 0.0000 | 2.6853 |
| Worker | 0.0487 | 0.0373 | 0.4128 | 1.1900e-003 | 0.1196 | 9.2000e-004 | 0.1205 | 0.0318 | 8.5000e-004 | 0.0326 | 0.0000 | 107.6556 | 107.6556 | 3.0900e-003 | 0.0000 | 107.7328 |
| Total | 0.0491 | 0.0498 | 0.4159 | 1.2200e-003 | 0.1204 | 9.8000e-004 | 0.1213 | 0.0320 | 9.0000e-004 | 0.0329 | 0.0000 | 110.5810 | 110.5810 | 3.2900e-003 | 0.0000 | 110.6630 |

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3.4 Building Construction - 2020

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 | 0.0515 | 0.5587 | 0.3959 | 6.9000e-004 | | 0.0293 | 0.0293 | | 0.0269 | 0.0269 | 0.0000 | 61.0277 | 61.0277 | 0.0197 | 0.0000 | 61.5212 |
| Total | 0.0515 | 0.5587 | 0.3959 | 6.9000e-004 | | 0.0293 | 0.0293 | | 0.0269 | 0.0269 | 0.0000 | 61.0277 | 61.0277 | 0.0197 | 0.0000 | 61.5212 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|-----------------|-----------------|--------------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.0000e-005 | 8.8000e-004 | 1.8000e-004 | 0.0000 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.2445 | 0.2445 | 2.0000e-005 | 0.0000 | 0.2449 |
| Vendor | 3.7000e-004 | 0.0116 | 2.8800e-003 | 3.0000e-005 | 6.9000e-004 | 6.0000e-005 | 7.4000e-004 | 2.0000e-004 | 5.0000e-005 | 2.5000e-004 | 0.0000 | 2.6809 | 2.6809 | 1.8000e-004 | 0.0000 | 2.6853 |
| Worker | 0.0487 | 0.0373 | 0.4128 | 1.1900e-003 | 0.1196 | 9.2000e-004 | 0.1205 | 0.0318 | 8.5000e-004 | 0.0326 | 0.0000 | 107.6556 | 107.6556 | 3.0900e-003 | 0.0000 | 107.7328 |
| Total | 0.0491 | 0.0498 | 0.4159 | 1.2200e-003 | 0.1204 | 9.8000e-004 | 0.1213 | 0.0320 | 9.0000e-004 | 0.0329 | 0.0000 | 110.5810 | 110.5810 | 3.2900e-003 | 0.0000 | 110.6630 |

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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 | 0.0345 | 0.3738 | 0.2870 | 5.2000e-004 | | 0.0187 | 0.0187 | | 0.0172 | 0.0172 | 0.0000 | 45.3587 | 45.3587 | 0.0147 | 0.0000 | 45.7255 |
| Total | 0.0345 | 0.3738 | 0.2870 | 5.2000e-004 | | 0.0187 | 0.0187 | | 0.0172 | 0.0172 | 0.0000 | 45.3587 | 45.3587 | 0.0147 | 0.0000 | 45.7255 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.0000e-005 | 6.1000e-004 | 1.3000e-004 | 0.0000 | 8.0000e-005 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.1798 | 0.1798 | 1.0000e-005 | 0.0000 | 0.1801 |
| Vendor | 2.3000e-004 | 7.8400e-003 | 1.9400e-003 | 2.0000e-005 | 5.1000e-004 | 2.0000e-005 | 5.3000e-004 | 1.5000e-004 | 2.0000e-005 | 1.6000e-004 | 0.0000 | 1.9776 | 1.9776 | 1.3000e-004 | 0.0000 | 1.9807 |
| Worker | 0.0338 | 0.0250 | 0.2823 | 8.6000e-004 | 0.0889 | 6.7000e-004 | 0.0895 | 0.0236 | 6.1000e-004 | 0.0242 | 0.0000 | 77.4085 | 77.4085 | 2.0800e-003 | 0.0000 | 77.4604 |
| Total | 0.0340 | 0.0334 | 0.2843 | 8.8000e-004 | 0.0895 | 6.9000e-004 | 0.0902 | 0.0238 | 6.3000e-004 | 0.0244 | 0.0000 | 79.5658 | 79.5658 | 2.2200e-003 | 0.0000 | 79.6211 |

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3.4 Building Construction - 2021

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 | 0.0345 | 0.3738 | 0.2870 | 5.2000e-004 | | 0.0187 | 0.0187 | | 0.0172 | 0.0172 | 0.0000 | 45.3587 | 45.3587 | 0.0147 | 0.0000 | 45.7254 |
| Total | 0.0345 | 0.3738 | 0.2870 | 5.2000e-004 | | 0.0187 | 0.0187 | | 0.0172 | 0.0172 | 0.0000 | 45.3587 | 45.3587 | 0.0147 | 0.0000 | 45.7254 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.0000e-005 | 6.1000e-004 | 1.3000e-004 | 0.0000 | 8.0000e-005 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.1798 | 0.1798 | 1.0000e-005 | 0.0000 | 0.1801 |
| Vendor | 2.3000e-004 | 7.8400e-003 | 1.9400e-003 | 2.0000e-005 | 5.1000e-004 | 2.0000e-005 | 5.3000e-004 | 1.5000e-004 | 2.0000e-005 | 1.6000e-004 | 0.0000 | 1.9776 | 1.9776 | 1.3000e-004 | 0.0000 | 1.9807 |
| Worker | 0.0338 | 0.0250 | 0.2823 | 8.6000e-004 | 0.0889 | 6.7000e-004 | 0.0895 | 0.0236 | 6.1000e-004 | 0.0242 | 0.0000 | 77.4085 | 77.4085 | 2.0800e-003 | 0.0000 | 77.4604 |
| Total | 0.0340 | 0.0334 | 0.2843 | 8.8000e-004 | 0.0895 | 6.9000e-004 | 0.0902 | 0.0238 | 6.3000e-004 | 0.0244 | 0.0000 | 79.5658 | 79.5658 | 2.2200e-003 | 0.0000 | 79.6211 |

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3.5 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 | 0.0519 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.5000e-004 | 3.8200e-003 | 4.5400e-003 | 1.0000e-005 | | 2.4000e-004 | 2.4000e-004 | | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6394 |
| Total | 0.0525 | 3.8200e-003 | 4.5400e-003 | 1.0000e-005 | | 2.4000e-004 | 2.4000e-004 | | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6394 |

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 | 4.2000e-004 | 3.1000e-004 | 3.4800e-003 | 1.0000e-005 | 1.1000e-003 | 1.0000e-005 | 1.1100e-003 | 2.9000e-004 | 1.0000e-005 | 3.0000e-004 | 0.0000 | 0.9557 | 0.9557 | 3.0000e-005 | 0.0000 | 0.9563 |
| Total | 4.2000e-004 | 3.1000e-004 | 3.4800e-003 | 1.0000e-005 | 1.1000e-003 | 1.0000e-005 | 1.1100e-003 | 2.9000e-004 | 1.0000e-005 | 3.0000e-004 | 0.0000 | 0.9557 | 0.9557 | 3.0000e-005 | 0.0000 | 0.9563 |

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3.5 Architectural Coating - 2021

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 | 0.0519 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.5000e-004 | 3.8200e-003 | 4.5400e-003 | 1.0000e-005 | | 2.4000e-004 | 2.4000e-004 | | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6394 |
| Total | 0.0525 | 3.8200e-003 | 4.5400e-003 | 1.0000e-005 | | 2.4000e-004 | 2.4000e-004 | | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6394 |

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 | 4.2000e-004 | 3.1000e-004 | 3.4800e-003 | 1.0000e-005 | 1.1000e-003 | 1.0000e-005 | 1.1100e-003 | 2.9000e-004 | 1.0000e-005 | 3.0000e-004 | 0.0000 | 0.9557 | 0.9557 | 3.0000e-005 | 0.0000 | 0.9563 |
| Total | 4.2000e-004 | 3.1000e-004 | 3.4800e-003 | 1.0000e-005 | 1.1000e-003 | 1.0000e-005 | 1.1100e-003 | 2.9000e-004 | 1.0000e-005 | 3.0000e-004 | 0.0000 | 0.9557 | 0.9557 | 3.0000e-005 | 0.0000 | 0.9563 |

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 0.00 | 0.00 | 0.00 | | |
| General Office Building | 0.00 | 0.00 | 0.00 | | |
| Library | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Low Rise | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| General Office Building | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Library | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

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5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| General Office Building | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Library | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|----------------|---------------|---------------|----------------|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | -29.6667 | -0.0080 | 0.0000 | 0.0000 | -0.0080 |
| General Office Building | -29.6667 | -0.0080 | 0.0000 | 0.0000 | -0.0080 |
| Library | -29.6667 | -0.0080 | 0.0000 | 0.0000 | -0.0080 |
| Total | | -0.0239 | 0.0000 | 0.0000 | -0.0240 |

6.0 Area Detail

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6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|-------------|--------|--------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |
| Unmitigated | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |

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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 | 5.1900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0452 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.5800e-003 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |
| Total | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |

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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 | 5.1900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0452 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.5800e-003 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |
| Total | 0.0519 | 6.0000e-004 | 0.0518 | 0.0000 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 0.0844 | 0.0844 | 8.0000e-005 | 0.0000 | 0.0865 |

7.0 Water Detail

7.1 Mitigation Measures Water

- Use Reclaimed Water
- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System
- Use Water Efficient Landscaping

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| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|-------------|-------------|--------|
| Category | MT/yr | | | |
| Mitigated | 2.5001 | 1.2000e-004 | 3.0000e-005 | 2.5107 |
| Unmitigated | 2.6625 | 1.3000e-004 | 3.0000e-005 | 2.6738 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|--------------------|---------------|--------------------|--------------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 0 / 0.205377 | 0.6135 | 3.0000e-005 | 1.0000e-005 | 0.6161 |
| General Office Building | 0 / 0.490201 | 1.4643 | 7.0000e-005 | 1.0000e-005 | 1.4705 |
| Library | 0 / 0.195756 | 0.5847 | 3.0000e-005 | 1.0000e-005 | 0.5872 |
| Total | | 2.6625 | 1.3000e-004 | 3.0000e-005 | 2.6738 |

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7.2 Water by Land Use**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|--------------------|---------------|--------------------|--------------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 0 / 0.192849 | 0.5761 | 3.0000e-005 | 1.0000e-005 | 0.5785 |
| General Office Building | 0 / 0.460299 | 1.3749 | 7.0000e-005 | 1.0000e-005 | 1.3808 |
| Library | 0 / 0.183815 | 0.5491 | 3.0000e-005 | 1.0000e-005 | 0.5514 |
| Total | | 2.5001 | 1.3000e-004 | 3.0000e-005 | 2.5107 |

8.0 Waste Detail**8.1 Mitigation Measures Waste**

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Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|--------|
| | MT/yr | | | |
| Mitigated | 2.0644 | 0.1220 | 0.0000 | 5.1145 |
| Unmitigated | 2.0644 | 0.1220 | 0.0000 | 5.1145 |

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 2.3 | 0.4669 | 0.0276 | 0.0000 | 1.1567 |
| General Office Building | 4.19 | 0.8505 | 0.0503 | 0.0000 | 2.1072 |
| Library | 3.68 | 0.7470 | 0.0442 | 0.0000 | 1.8507 |
| Total | | 2.0644 | 0.1220 | 0.0000 | 5.1145 |

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8.2 Waste by Land Use

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 2.3 | 0.4669 | 0.0276 | 0.0000 | 1.1567 |
| General Office Building | 4.19 | 0.8505 | 0.0503 | 0.0000 | 2.1072 |
| Library | 3.68 | 0.7470 | 0.0442 | 0.0000 | 1.8507 |
| Total | | 2.0644 | 0.1220 | 0.0000 | 5.1145 |

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| Category | MT | | | |
| Unmitigated | 19.1160 | 0.0000 | 0.0000 | 19.1160 |

11.2 Net New Trees

Species Class

| | Number of Trees | Total CO2 | CH4 | N2O | CO2e |
|---------------|-----------------|----------------|---------------|---------------|----------------|
| | | MT | | | |
| Miscellaneous | 27 | 19.1160 | 0.0000 | 0.0000 | 19.1160 |
| Total | | 19.1160 | 0.0000 | 0.0000 | 19.1160 |

California State University, Long Beach Housing Expansion Phase 1 - Earl Warren Drive - South Coast AQMD Air District, Annual

**California State University, Long Beach Housing Expansion Phase 1 - Earl Warren Drive
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|------|--------|-------------|--------------------|------------|
| Other Asphalt Surfaces | 0.75 | Acre | 0.75 | 32,670.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 31 |
| Climate Zone | 9 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 592.74 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Compliance with SCE 2020 33% RPS

Land Use - Demolition and Construction of Earl Warren Drive would disturb approximately 0.75 acres.

Construction Phase - From Project Description. Demolition and construction would last approximately seven months

Off-road Equipment - From Construction Assumptions

Off-road Equipment - From Construction Assumptions

Off-road Equipment - 2 loaders/backhoe required for site preparation

Grading - Demolition and construction of Earl Warren Drive would disturb approximately 0.75 acres. Limited utility trenching requires excavation of 6 feet for 370 feet (assumes 6ft in width) - 200 cubic yards of material

Vehicle Trips - Earl Warren Drive will accommodate an existing student population. No new trip generation anticipated.

Energy Use -

Mobile Land Use Mitigation -

Operational Off-Road Equipment - No off-road equipment

Trips and VMT - Number of construction workers required for project not included in PD. Assume 10 workers/day for demolition, 20 workers/day for site prep, and 10 workers/day for paving
 Area Mitigation -

| Table Name | Column Name | Default Value | New Value |
|---------------------------|----------------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblConstructionPhase | NumDays | 1.00 | 125.00 |
| tblGrading | AcresOfGrading | 10.00 | 0.75 |
| tblGrading | MaterialExported | 0.00 | 360.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 592.74 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 23.00 |
| tblTripsAndVMT | HaulingTripNumber | 45.00 | 46.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 20.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 40.00 |
| tblVehicleTrips | CC_TL | 8.40 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.90 | 0.00 |
| tblVehicleTrips | CW_TL | 16.60 | 0.00 |

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.0682 | 0.6645 | 0.5299 | 1.1700e-003 | 0.0295 | 0.0282 | 0.0577 | 7.7700e-003 | 0.0260 | 0.0337 | 0.0000 | 103.7035 | 103.7035 | 0.0251 | 0.0000 | 104.3322 |
| Maximum | 0.0682 | 0.6645 | 0.5299 | 1.1700e-003 | 0.0295 | 0.0282 | 0.0577 | 7.7700e-003 | 0.0260 | 0.0337 | 0.0000 | 103.7035 | 103.7035 | 0.0251 | 0.0000 | 104.3322 |

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.0682 | 0.6645 | 0.5299 | 1.1700e-003 | 0.0295 | 0.0282 | 0.0577 | 7.7700e-003 | 0.0260 | 0.0337 | 0.0000 | 103.7035 | 103.7035 | 0.0251 | 0.0000 | 104.3321 |
| Maximum | 0.0682 | 0.6645 | 0.5299 | 1.1700e-003 | 0.0295 | 0.0282 | 0.0577 | 7.7700e-003 | 0.0260 | 0.0337 | 0.0000 | 103.7035 | 103.7035 | 0.0251 | 0.0000 | 104.3321 |

| | ROG | NOx | CO | SO2 | 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 |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|----------|--|--|
| 5 | 11-4-2020 | 2-3-2021 | 0.0264 | 0.0264 |
| 6 | 2-4-2021 | 5-3-2021 | 0.3479 | 0.3479 |
| 7 | 5-4-2021 | 8-3-2021 | 0.3363 | 0.3363 |
| | | Highest | 0.3479 | 0.3479 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 2.5700e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 2.5700e-003 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 2.5700e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 2.5700e-003 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

| | ROG | NOx | CO | SO2 | 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 | Demolition | Demolition | 1/4/2021 | 1/8/2021 | 5 | 5 | |
| 2 | Site Preparation | Site Preparation | 2/1/2021 | 7/23/2021 | 5 | 125 | |
| 3 | Paving | Paving | 7/26/2021 | 7/30/2021 | 5 | 5 | |

Acres of Grading (Site Preparation Phase): 0.75

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.75

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 4 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 1 | 8.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |

| | | | | | | | | | | | | | | | | |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| 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 | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4778 | 0.4778 | 1.0000e-005 | 0.0000 | 0.4782 |
| Total | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4778 | 0.4778 | 1.0000e-005 | 0.0000 | 0.4782 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 1.9900e-003 | 0.0181 | 0.0189 | 3.0000e-005 | | 1.0200e-003 | 1.0200e-003 | | 9.7000e-004 | 9.7000e-004 | 0.0000 | 2.6023 | 2.6023 | 4.8000e-004 | 0.0000 | 2.6145 |
| Total | 1.9900e-003 | 0.0181 | 0.0189 | 3.0000e-005 | | 1.0200e-003 | 1.0200e-003 | | 9.7000e-004 | 9.7000e-004 | 0.0000 | 2.6023 | 2.6023 | 4.8000e-004 | 0.0000 | 2.6145 |

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 | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4778 | 0.4778 | 1.0000e-005 | 0.0000 | 0.4782 |
| Total | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4778 | 0.4778 | 1.0000e-005 | 0.0000 | 0.4782 |

3.3 Site Preparation - 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 | | | | | |
| Fugitive Dust | | | | | 4.2000e-004 | 0.0000 | 4.2000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0517 | 0.6073 | 0.3930 | 8.0000e-004 | | 0.0257 | 0.0257 | | 0.0237 | 0.0237 | 0.0000 | 70.5044 | 70.5044 | 0.0228 | 0.0000 | 71.0744 |
| Total | 0.0517 | 0.6073 | 0.3930 | 8.0000e-004 | 4.2000e-004 | 0.0257 | 0.0261 | 5.0000e-005 | 0.0237 | 0.0237 | 0.0000 | 70.5044 | 70.5044 | 0.0228 | 0.0000 | 71.0744 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9000e-004 | 6.5700e-003 | 1.4200e-003 | 2.0000e-005 | 4.5000e-004 | 2.0000e-005 | 4.8000e-004 | 1.2000e-004 | 2.0000e-005 | 1.4000e-004 | 0.0000 | 1.9397 | 1.9397 | 1.3000e-004 | 0.0000 | 1.9429 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0104 | 7.7000e-003 | 0.0871 | 2.6000e-004 | 0.0274 | 2.1000e-004 | 0.0276 | 7.2800e-003 | 1.9000e-004 | 7.4700e-003 | 0.0000 | 23.8915 | 23.8915 | 6.4000e-004 | 0.0000 | 23.9075 |
| Total | 0.0106 | 0.0143 | 0.0885 | 2.8000e-004 | 0.0279 | 2.3000e-004 | 0.0281 | 7.4000e-003 | 2.1000e-004 | 7.6100e-003 | 0.0000 | 25.8312 | 25.8312 | 7.7000e-004 | 0.0000 | 25.8504 |

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 | | | | | 4.2000e-004 | 0.0000 | 4.2000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0517 | 0.6073 | 0.3930 | 8.0000e-004 | | 0.0257 | 0.0257 | | 0.0237 | 0.0237 | 0.0000 | 70.5043 | 70.5043 | 0.0228 | 0.0000 | 71.0744 |
| Total | 0.0517 | 0.6073 | 0.3930 | 8.0000e-004 | 4.2000e-004 | 0.0257 | 0.0261 | 5.0000e-005 | 0.0237 | 0.0237 | 0.0000 | 70.5043 | 70.5043 | 0.0228 | 0.0000 | 71.0744 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9000e-004 | 6.5700e-003 | 1.4200e-003 | 2.0000e-005 | 4.5000e-004 | 2.0000e-005 | 4.8000e-004 | 1.2000e-004 | 2.0000e-005 | 1.4000e-004 | 0.0000 | 1.9397 | 1.9397 | 1.3000e-004 | 0.0000 | 1.9429 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0104 | 7.7000e-003 | 0.0871 | 2.6000e-004 | 0.0274 | 2.1000e-004 | 0.0276 | 7.2800e-003 | 1.9000e-004 | 7.4700e-003 | 0.0000 | 23.8915 | 23.8915 | 6.4000e-004 | 0.0000 | 23.9075 |
| Total | 0.0106 | 0.0143 | 0.0885 | 2.8000e-004 | 0.0279 | 2.3000e-004 | 0.0281 | 7.4000e-003 | 2.1000e-004 | 7.6100e-003 | 0.0000 | 25.8312 | 25.8312 | 7.7000e-004 | 0.0000 | 25.8504 |

3.4 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 | 2.4200e-003 | 0.0231 | 0.0256 | 4.0000e-005 | | 1.2000e-003 | 1.2000e-003 | | 1.1100e-003 | 1.1100e-003 | 0.0000 | 3.4438 | 3.4438 | 1.0400e-003 | 0.0000 | 3.4697 |
| Paving | 9.8000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | | | | | | | | | | | | |
|--------------|--------------------|---------------|---------------|--------------------|--|--------------------|--------------------|--|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Total | 3.4000e-003 | 0.0231 | 0.0256 | 4.0000e-005 | | 1.2000e-003 | 1.2000e-003 | | 1.1100e-003 | 1.1100e-003 | 0.0000 | 3.4438 | 3.4438 | 1.0400e-003 | 0.0000 | 3.4697 |
|--------------|--------------------|---------------|---------------|--------------------|--|--------------------|--------------------|--|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|

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 | 4.0000e-005 | 1.4500e-003 | 3.6000e-004 | 0.0000 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.3662 | 0.3662 | 2.0000e-005 | 0.0000 | 0.3668 |
| Worker | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4778 | 0.4778 | 1.0000e-005 | 0.0000 | 0.4782 |
| Total | 2.5000e-004 | 1.6000e-003 | 2.1000e-003 | 1.0000e-005 | 6.4000e-004 | 0.0000 | 6.5000e-004 | 1.8000e-004 | 0.0000 | 1.8000e-004 | 0.0000 | 0.8441 | 0.8441 | 3.0000e-005 | 0.0000 | 0.8450 |

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 | 2.4200e-003 | 0.0231 | 0.0256 | 4.0000e-005 | | 1.2000e-003 | 1.2000e-003 | | 1.1100e-003 | 1.1100e-003 | 0.0000 | 3.4438 | 3.4438 | 1.0400e-003 | 0.0000 | 3.4697 |
| Paving | 9.8000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 3.4000e-003 | 0.0231 | 0.0256 | 4.0000e-005 | | 1.2000e-003 | 1.2000e-003 | | 1.1100e-003 | 1.1100e-003 | 0.0000 | 3.4438 | 3.4438 | 1.0400e-003 | 0.0000 | 3.4697 |

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 | 4.0000e-005 | 1.4500e-003 | 3.6000e-004 | 0.0000 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.3662 | 0.3662 | 2.0000e-005 | 0.0000 | 0.3668 |
| Worker | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4778 | 0.4778 | 1.0000e-005 | 0.0000 | 0.4782 |
| Total | 2.5000e-004 | 1.6000e-003 | 2.1000e-003 | 1.0000e-005 | 6.4000e-004 | 0.0000 | 6.5000e-004 | 1.8000e-004 | 0.0000 | 1.8000e-004 | 0.0000 | 0.8441 | 0.8441 | 3.0000e-005 | 0.0000 | 0.8450 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

| | | | | | |
|------------------------|------|------|------|--|--|
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

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- | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Other Asphalt Surfaces | 0.548858 | 0.043235 | 0.200706 | 0.120309 | 0.016131 | 0.005851 | 0.021034 | 0.033479 | 0.002070 | 0.001877 | 0.004817 | 0.000707 | 0.000925 |

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|-----------|--------|--------|--------|
| Land Use | kWh/yr | MT/yr | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | |
|-------|--|--------|--------|--------|--------|
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
|-------|--|--------|--------|--------|--------|

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use | kWh/yr | MT/yr | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.5700e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Unmitigated | 2.5700e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

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 | 4.5000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.1100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Total | 2.5600e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

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 | 4.5000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.1100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Total | 2.5600e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|----------|--------------------|-----------|-----|-----|------|
| Land Use | Mgal | MT/yr | | | |

| | | | | | |
|------------------------|-------|---------------|---------------|---------------|---------------|
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
| | 0 | 0.00 | 0 | | | Diesel |

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

