

MERCED BIOGAS UPGRADE AND PIPELINE PROJECT AIR EMISSIONS REPORT: METHODOLOGY AND CALCULATIONS

For the Merced Biogas Upgrade and Pipeline project, air pollutant and greenhouse gas (GHG) emissions from construction activities were estimated using the Sacramento Metropolitan Air Quality Management District (SMAQMD) Roadway Construction Emissions Model (Version 9.0) and California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Activities proposed for construction that would result in air emissions include the construction of the 30,000 square-foot biogas upgrading facility and installation of approximately 34 miles of buried biogas gathering lines.

The project would be constructed in two potentially overlapping phases. Phase 1 would consist of construction of the biogas upgrade facility at one of the proposed alternative sites. Construction of the facilities under Phase 1 would take approximately 12 months, with construction beginning as early as the first quarter of 2020. Phase 2 would include construction of the pipeline over an approximate 7-month period. Because the timing of pipeline construction is not currently known and would occur as each individual dairy digester is permitted and constructed, these calculations assume one phase for the worst-case scenario.

Biogas Upgrade Facility Construction – CalEEMod Version 2016.3.2

Land Use

- The General Light Industrial land use subtype was used to represent the biogas upgrade facility for model defaults. New structures would consist of approximately 30,000 square feet of construction. Project construction for the biogas upgrade facility would occur over an approximate one-acre area.

Construction Phase

- Construction is anticipated to begin in early 2020 and would occur over approximately 12 months. While the dates entered may not represent the actual dates of construction, the total construction time is accurate, and therefore, all estimated emission totals are considered conservative.
- Off-road Equipment - The project applicant has provided a list of typical construction equipment. CalEEMod default equipment for the proposed land use were modified accordingly based on this list.
- Worker and vendor trip length was increased to account for rural area of the project site.

Vehicle Trips

- The proposed project operates 7 days a week. The proposed operations would generate approximately 2.6 ADTs (or 0.087 trips per 1,000 square feet).

Water and Electricity Use

The proposed biogas upgrade facility would use approximately 1,000 gallons of water once a month in order to wash down equipment. This would equate to approximately 12,000 gallons of water per year. Operations would require about 8,600,000 kWh per year.

Pipeline Construction – SMAQMD Roadway Construction Emissions Model Version 9.0

- Construction would occur over a 7-month period.
- Approximately 34 miles of pipeline would be constructed.
- Since some amount of pipeline would be laid within the roadway, default assumptions for a road widening project were used and modified as appropriate.
- 10 employees estimated

Biogas Upgrade Facility – Biogas Production

Based on the current projections for 9 dairies, 30,819.74 MMBTUs would be the project’s average biogas production per month. The following GHG reductions were estimated:

| MMBTU/mo | BTU/mo | SCF/mo | Metric Ton CO ₂ e | |
|-----------|----------------|------------|------------------------------|--------|
| | | | month | annual |
| 30,819.74 | 30,819,740,000 | 30,819,740 | 1,680 | 20,160 |

Source: Greenhouse Gas Emission Calculator for Fuel Savings, CDEA: <https://apps1.cdja.ca.gov/emissioncalculator/>

| MMBTU/mo | BTU/mo | BTU/year | kWh/year |
|-----------|----------------|-----------------|-------------|
| 30,819.74 | 30,819,740,000 | 369,836,880,000 | 108,388,464 |

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1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Light Industry | 30.00 | 1000sqft | 1.00 | 30,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|--------------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Rural | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 49 |
| Climate Zone | 3 | | | Operational Year | 2021 |
| Utility Company | Pacific Gas & Electric Company | | | | |
| CO2 Intensity (lb/MW hr) | 641.35 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Area of potential disturbance

Construction Phase - No demolition

Vehicle Trips - Modified to reflect facility ADT

Road Dust -

Energy Use - Applicant provided.

Water And Wastewater - Updated to match project water use. No wastewater

Land Use Change -

Construction Off-road Equipment Mitigation - As required by SJVAPCD

Area Mitigation -

Trips and VMT - See Notes

| Table Name | Column Name | Default Value | New Value |
|------------------------|------------------------------|---------------|-----------|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConstructionPhase | NumDays | 2.00 | 4.00 |
| tblConstructionPhase | NumDays | 100.00 | 180.00 |
| tblConstructionPhase | NumDays | 5.00 | 8.00 |
| tblConstructionPhase | NumDays | 5.00 | 8.00 |
| tblEnergyUse | LightingElect | 2.70 | 0.00 |
| tblEnergyUse | NT24E | 4.16 | 0.00 |
| tblEnergyUse | NT24NG | 3.84 | 0.00 |
| tblEnergyUse | T24E | 1.96 | 286.00 |
| tblEnergyUse | T24NG | 17.03 | 0.00 |
| tblGrading | AcresOfGrading | 1.50 | 0.75 |
| tblGrading | AcresOfGrading | 1.50 | 0.50 |
| tblLandUse | LotAcreage | 0.69 | 1.00 |

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| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
|---------------------------|--|--------------|-------|
| tblTripsAndVMT | VendorTripLength | 6.60 | 20.00 |
| tblTripsAndVMT | VendorTripLength | 6.60 | 20.00 |
| tblTripsAndVMT | VendorTripLength | 6.60 | 20.00 |
| tblTripsAndVMT | VendorTripLength | 6.60 | 20.00 |
| tblTripsAndVMT | VendorTripLength | 6.60 | 20.00 |
| tblTripsAndVMT | WorkerTripLength | 16.80 | 30.00 |
| tblTripsAndVMT | WorkerTripLength | 16.80 | 30.00 |
| tblTripsAndVMT | WorkerTripLength | 16.80 | 30.00 |
| tblTripsAndVMT | WorkerTripLength | 16.80 | 30.00 |
| tblTripsAndVMT | WorkerTripLength | 16.80 | 30.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.09 |
| tblVehicleTrips | SU_TR | 0.68 | 0.09 |
| tblVehicleTrips | WD_TR | 6.97 | 0.09 |
| tblWater | ElectricityIntensityFactorForWastewaterTreatment | 1,911.00 | 0.00 |
| tblWater | IndoorWaterUseRate | 6,937,500.00 | 0.40 |

2.0 Emissions Summary

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| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 1-1-2020 | 3-31-2020 | 0.5589 | 0.5589 |
| 2 | 4-1-2020 | 6-30-2020 | 0.5895 | 0.5895 |
| 3 | 7-1-2020 | 9-30-2020 | 0.5183 | 0.5183 |
| | | Highest | 0.5895 | 0.5895 |

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 | 0.1381 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,496.0204 | 2,496.0204 | 0.1129 | 0.0234 | 2,505.8005 |
| Mobile | 1.3600e-003 | 0.0167 | 0.0149 | 7.0000e-005 | 4.0000e-003 | 7.0000e-005 | 4.0700e-003 | 1.0800e-003 | 7.0000e-005 | 1.1400e-003 | 0.0000 | 6.7556 | 6.7556 | 5.1000e-004 | 0.0000 | 6.7684 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 7.5513 | 0.0000 | 7.5513 | 0.4463 | 0.0000 | 18.7079 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.1394 | 0.0167 | 0.0152 | 7.0000e-005 | 4.0000e-003 | 7.0000e-005 | 4.0700e-003 | 1.0800e-003 | 7.0000e-005 | 1.1400e-003 | 7.5513 | 2,502.7765 | 2,510.3278 | 0.5596 | 0.0234 | 2,531.2774 |

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2.3 Vegetation

Vegetation

| | |
|------------------------|----------------|
| | CO2e |
| Category | MT |
| Vegetation Land Change | -6.2000 |
| Total | -6.2000 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Site Preparation | Site Preparation | 1/1/2020 | 1/3/2020 | 5 | 3 | |
| 2 | Grading | Grading | 1/6/2020 | 1/9/2020 | 5 | 4 | |
| 3 | Building Construction | Building Construction | 1/13/2020 | 9/18/2020 | 5 | 180 | |
| 4 | Paving | Paving | 10/5/2020 | 10/14/2020 | 5 | 8 | |
| 5 | Architectural Coating | Architectural Coating | 11/2/2020 | 11/11/2020 | 5 | 8 | |

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.75

Acres of Paving: 0

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Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Rubber Tired Dozers | 1 | 7.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Graders | 1 | 6.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 6.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 6.00 | 231 | 0.29 |
| Building Construction | Forklifts | 1 | 6.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Building Construction | Welders | 3 | 8.00 | 46 | 0.45 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 1 | 6.00 | 130 | 0.42 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

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| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Site Preparation | 3 | 8.00 | 0.00 | 0.00 | 30.00 | 20.00 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 3 | 8.00 | 0.00 | 0.00 | 30.00 | 20.00 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 7 | 13.00 | 5.00 | 0.00 | 30.00 | 20.00 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 5 | 13.00 | 0.00 | 0.00 | 30.00 | 20.00 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 30.00 | 20.00 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 8.1700e-003 | 0.0000 | 8.1700e-003 | 4.3700e-003 | 0.0000 | 4.3700e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.4400e-003 | 0.0275 | 0.0116 | 3.0000e-005 | | 1.2300e-003 | 1.2300e-003 | | 1.1300e-003 | 1.1300e-003 | 0.0000 | 2.2690 | 2.2690 | 7.3000e-004 | 0.0000 | 2.2873 |
| Total | 2.4400e-003 | 0.0275 | 0.0116 | 3.0000e-005 | 8.1700e-003 | 1.2300e-003 | 9.4000e-003 | 4.3700e-003 | 1.1300e-003 | 5.5000e-003 | 0.0000 | 2.2690 | 2.2690 | 7.3000e-004 | 0.0000 | 2.2873 |

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3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |
| Total | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |

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 | | | | | 3.6800e-003 | 0.0000 | 3.6800e-003 | 1.9700e-003 | 0.0000 | 1.9700e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.4400e-003 | 0.0275 | 0.0116 | 3.0000e-005 | | 1.2300e-003 | 1.2300e-003 | | 1.1300e-003 | 1.1300e-003 | 0.0000 | 2.2690 | 2.2690 | 7.3000e-004 | 0.0000 | 2.2873 |
| Total | 2.4400e-003 | 0.0275 | 0.0116 | 3.0000e-005 | 3.6800e-003 | 1.2300e-003 | 4.9100e-003 | 1.9700e-003 | 1.1300e-003 | 3.1000e-003 | 0.0000 | 2.2690 | 2.2690 | 7.3000e-004 | 0.0000 | 2.2873 |

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3.2 Site Preparation - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |
| Total | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |

3.3 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 9.4300e-003 | 0.0000 | 9.4300e-003 | 5.0100e-003 | 0.0000 | 5.0100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.7000e-003 | 0.0302 | 0.0129 | 3.0000e-005 | | 1.3700e-003 | 1.3700e-003 | | 1.2600e-003 | 1.2600e-003 | 0.0000 | 2.4779 | 2.4779 | 8.0000e-004 | 0.0000 | 2.4980 |
| Total | 2.7000e-003 | 0.0302 | 0.0129 | 3.0000e-005 | 9.4300e-003 | 1.3700e-003 | 0.0108 | 5.0100e-003 | 1.2600e-003 | 6.2700e-003 | 0.0000 | 2.4779 | 2.4779 | 8.0000e-004 | 0.0000 | 2.4980 |

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3.3 Grading - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6000e-004 | 1.3000e-004 | 1.3000e-003 | 0.0000 | 3.5000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3166 | 0.3166 | 1.0000e-005 | 0.0000 | 0.3168 |
| Total | 1.6000e-004 | 1.3000e-004 | 1.3000e-003 | 0.0000 | 3.5000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3166 | 0.3166 | 1.0000e-005 | 0.0000 | 0.3168 |

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 | | | | | 4.2400e-003 | 0.0000 | 4.2400e-003 | 2.2500e-003 | 0.0000 | 2.2500e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.7000e-003 | 0.0302 | 0.0129 | 3.0000e-005 | | 1.3700e-003 | 1.3700e-003 | | 1.2600e-003 | 1.2600e-003 | 0.0000 | 2.4779 | 2.4779 | 8.0000e-004 | 0.0000 | 2.4980 |
| Total | 2.7000e-003 | 0.0302 | 0.0129 | 3.0000e-005 | 4.2400e-003 | 1.3700e-003 | 5.6100e-003 | 2.2500e-003 | 1.2600e-003 | 3.5100e-003 | 0.0000 | 2.4779 | 2.4779 | 8.0000e-004 | 0.0000 | 2.4980 |

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3.3 Grading - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6000e-004 | 1.3000e-004 | 1.3000e-003 | 0.0000 | 3.5000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3166 | 0.3166 | 1.0000e-005 | 0.0000 | 0.3168 |
| Total | 1.6000e-004 | 1.3000e-004 | 1.3000e-003 | 0.0000 | 3.5000e-004 | 0.0000 | 3.6000e-004 | 9.0000e-005 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3166 | 0.3166 | 1.0000e-005 | 0.0000 | 0.3168 |

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 | 0.1827 | 1.3309 | 1.1869 | 1.9800e-003 | | 0.0716 | 0.0716 | | 0.0692 | 0.0692 | 0.0000 | 163.3879 | 163.3879 | 0.0303 | 0.0000 | 164.1462 |
| Total | 0.1827 | 1.3309 | 1.1869 | 1.9800e-003 | | 0.0716 | 0.0716 | | 0.0692 | 0.0692 | 0.0000 | 163.3879 | 163.3879 | 0.0303 | 0.0000 | 164.1462 |

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 3.9100e-003 | 0.0961 | 0.0220 | 3.0000e-004 | 8.1400e-003 | 7.7000e-004 | 8.9100e-003 | 2.3500e-003 | 7.4000e-004 | 3.0900e-003 | 0.0000 | 28.3003 | 28.3003 | 1.3600e-003 | 0.0000 | 28.3343 |
| Worker | 0.0118 | 9.5900e-003 | 0.0952 | 2.6000e-004 | 0.0259 | 1.9000e-004 | 0.0261 | 6.8800e-003 | 1.7000e-004 | 7.0600e-003 | 0.0000 | 23.1479 | 23.1479 | 7.1000e-004 | 0.0000 | 23.1657 |
| Total | 0.0158 | 0.1057 | 0.1172 | 5.6000e-004 | 0.0340 | 9.6000e-004 | 0.0350 | 9.2300e-003 | 9.1000e-004 | 0.0102 | 0.0000 | 51.4482 | 51.4482 | 2.0700e-003 | 0.0000 | 51.5000 |

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 | 0.1827 | 1.3309 | 1.1869 | 1.9800e-003 | | 0.0716 | 0.0716 | | 0.0692 | 0.0692 | 0.0000 | 163.3877 | 163.3877 | 0.0303 | 0.0000 | 164.1460 |
| Total | 0.1827 | 1.3309 | 1.1869 | 1.9800e-003 | | 0.0716 | 0.0716 | | 0.0692 | 0.0692 | 0.0000 | 163.3877 | 163.3877 | 0.0303 | 0.0000 | 164.1460 |

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 3.9100e-003 | 0.0961 | 0.0220 | 3.0000e-004 | 8.1400e-003 | 7.7000e-004 | 8.9100e-003 | 2.3500e-003 | 7.4000e-004 | 3.0900e-003 | 0.0000 | 28.3003 | 28.3003 | 1.3600e-003 | 0.0000 | 28.3343 |
| Worker | 0.0118 | 9.5900e-003 | 0.0952 | 2.6000e-004 | 0.0259 | 1.9000e-004 | 0.0261 | 6.8800e-003 | 1.7000e-004 | 7.0600e-003 | 0.0000 | 23.1479 | 23.1479 | 7.1000e-004 | 0.0000 | 23.1657 |
| Total | 0.0158 | 0.1057 | 0.1172 | 5.6000e-004 | 0.0340 | 9.6000e-004 | 0.0350 | 9.2300e-003 | 9.1000e-004 | 0.0102 | 0.0000 | 51.4482 | 51.4482 | 2.0700e-003 | 0.0000 | 51.5000 |

3.5 Paving - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 3.3600e-003 | 0.0338 | 0.0355 | 5.0000e-005 | | 1.8800e-003 | 1.8800e-003 | | 1.7300e-003 | 1.7300e-003 | 0.0000 | 4.7063 | 4.7063 | 1.4900e-003 | 0.0000 | 4.7436 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 3.3600e-003 | 0.0338 | 0.0355 | 5.0000e-005 | | 1.8800e-003 | 1.8800e-003 | | 1.7300e-003 | 1.7300e-003 | 0.0000 | 4.7063 | 4.7063 | 1.4900e-003 | 0.0000 | 4.7436 |

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3.5 Paving - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.3000e-004 | 4.3000e-004 | 4.2300e-003 | 1.0000e-005 | 1.1500e-003 | 1.0000e-005 | 1.1600e-003 | 3.1000e-004 | 1.0000e-005 | 3.1000e-004 | 0.0000 | 1.0288 | 1.0288 | 3.0000e-005 | 0.0000 | 1.0296 |
| Total | 5.3000e-004 | 4.3000e-004 | 4.2300e-003 | 1.0000e-005 | 1.1500e-003 | 1.0000e-005 | 1.1600e-003 | 3.1000e-004 | 1.0000e-005 | 3.1000e-004 | 0.0000 | 1.0288 | 1.0288 | 3.0000e-005 | 0.0000 | 1.0296 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 3.3600e-003 | 0.0338 | 0.0355 | 5.0000e-005 | | 1.8800e-003 | 1.8800e-003 | | 1.7300e-003 | 1.7300e-003 | 0.0000 | 4.7063 | 4.7063 | 1.4900e-003 | 0.0000 | 4.7436 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 3.3600e-003 | 0.0338 | 0.0355 | 5.0000e-005 | | 1.8800e-003 | 1.8800e-003 | | 1.7300e-003 | 1.7300e-003 | 0.0000 | 4.7063 | 4.7063 | 1.4900e-003 | 0.0000 | 4.7436 |

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3.5 Paving - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.3000e-004 | 4.3000e-004 | 4.2300e-003 | 1.0000e-005 | 1.1500e-003 | 1.0000e-005 | 1.1600e-003 | 3.1000e-004 | 1.0000e-005 | 3.1000e-004 | 0.0000 | 1.0288 | 1.0288 | 3.0000e-005 | 0.0000 | 1.0296 |
| Total | 5.3000e-004 | 4.3000e-004 | 4.2300e-003 | 1.0000e-005 | 1.1500e-003 | 1.0000e-005 | 1.1600e-003 | 3.1000e-004 | 1.0000e-005 | 3.1000e-004 | 0.0000 | 1.0288 | 1.0288 | 3.0000e-005 | 0.0000 | 1.0296 |

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.2086 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.7000e-004 | 6.7400e-003 | 7.3300e-003 | 1.0000e-005 | | 4.4000e-004 | 4.4000e-004 | | 4.4000e-004 | 4.4000e-004 | 0.0000 | 1.0213 | 1.0213 | 8.0000e-005 | 0.0000 | 1.0233 |
| Total | 0.2096 | 6.7400e-003 | 7.3300e-003 | 1.0000e-005 | | 4.4000e-004 | 4.4000e-004 | | 4.4000e-004 | 4.4000e-004 | 0.0000 | 1.0213 | 1.0213 | 8.0000e-005 | 0.0000 | 1.0233 |

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3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |
| Total | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |

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 | 0.2086 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.7000e-004 | 6.7400e-003 | 7.3300e-003 | 1.0000e-005 | | 4.4000e-004 | 4.4000e-004 | | 4.4000e-004 | 4.4000e-004 | 0.0000 | 1.0213 | 1.0213 | 8.0000e-005 | 0.0000 | 1.0233 |
| Total | 0.2096 | 6.7400e-003 | 7.3300e-003 | 1.0000e-005 | | 4.4000e-004 | 4.4000e-004 | | 4.4000e-004 | 4.4000e-004 | 0.0000 | 1.0213 | 1.0213 | 8.0000e-005 | 0.0000 | 1.0233 |

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3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |
| Total | 1.2000e-004 | 1.0000e-004 | 9.8000e-004 | 0.0000 | 2.7000e-004 | 0.0000 | 2.7000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2374 | 0.2374 | 1.0000e-005 | 0.0000 | 0.2376 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.3600e-003 | 0.0167 | 0.0149 | 7.0000e-005 | 4.0000e-003 | 7.0000e-005 | 4.0700e-003 | 1.0800e-003 | 7.0000e-005 | 1.1400e-003 | 0.0000 | 6.7556 | 6.7556 | 5.1000e-004 | 0.0000 | 6.7684 |
| Unmitigated | 1.3600e-003 | 0.0167 | 0.0149 | 7.0000e-005 | 4.0000e-003 | 7.0000e-005 | 4.0700e-003 | 1.0800e-003 | 7.0000e-005 | 1.1400e-003 | 0.0000 | 6.7556 | 6.7556 | 5.1000e-004 | 0.0000 | 6.7684 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 2.70 | 2.70 | 2.70 | 10,431 | 10,431 |
| Total | 2.70 | 2.70 | 2.70 | 10,431 | 10,431 |

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 |
| General Light Industry | 14.70 | 6.60 | 6.60 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Light Industry | 0.492060 | 0.030872 | 0.155167 | 0.115051 | 0.019669 | 0.004846 | 0.015607 | 0.153483 | 0.002388 | 0.002252 | 0.006351 | 0.001584 | 0.000670 |

5.0 Energy Detail

Historical Energy Use: N

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5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Light Industry | 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 | | | |
| General Light Industry | 8.58e+006 | 2,496.0204 | 0.1129 | 0.0234 | 2,505.8005 |
| Total | | 2,496.0204 | 0.1129 | 0.0234 | 2,505.8005 |

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5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|-------------------|---------------|---------------|-------------------|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 8.58e+006 | 2,496.0204 | 0.1129 | 0.0234 | 2,505.8005 |
| Total | | 2,496.0204 | 0.1129 | 0.0234 | 2,505.8005 |

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.1381 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Unmitigated | 0.1381 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0209 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Total | 0.1381 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |

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6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0209 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Total | 0.1381 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |

7.0 Water Detail

7.1 Mitigation Measures Water

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| | 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 | | | |
| General Light Industry | 4e-007 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 4e-007 / 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 | 7.5513 | 0.4463 | 0.0000 | 18.7079 |
| Unmitigated | 7.5513 | 0.4463 | 0.0000 | 18.7079 |

Merced Biogas Upgrade Facility Project - Merced County, Annual

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 37.2 | 7.5513 | 0.4463 | 0.0000 | 18.7079 |
| Total | | 7.5513 | 0.4463 | 0.0000 | 18.7079 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 37.2 | 7.5513 | 0.4463 | 0.0000 | 18.7079 |
| Total | | 7.5513 | 0.4463 | 0.0000 | 18.7079 |

9.0 Operational Offroad

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

Merced Biogas Upgrade Facility Project - Merced County, Annual

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

Merced Biogas Upgrade Facility Project - Merced County, Annual

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| Category | MT | | | |
| Unmitigated | -6.2000 | 0.0000 | 0.0000 | -6.2000 |

11.1 Vegetation Land Change

Vegetation Type

| | Initial/Final | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|---------------|---------------|----------------|
| | Acres | MT | | | |
| Cropland | 1 / 0 | -6.2000 | 0.0000 | 0.0000 | -6.2000 |
| Total | | -6.2000 | 0.0000 | 0.0000 | -6.2000 |

Road Construction Emissions Model, Version 9.0.0

| Daily Emission Estimates for -> Merced Biogas Pipeline Project | | | | | | | | | | | | | | |
|--|---------------|--------------|---------------|----------------|------------------------|------------------------------|-----------------------|-------------------------|-------------------------------|---------------|---------------|---------------|---------------|----------------|
| Project Phases (Pounds) | ROG (lbs/day) | CO (lbs/day) | NOx (lbs/day) | PM10 (lbs/day) | Exhaust PM10 (lbs/day) | Fugitive Dust PM10 (lbs/day) | Total PM2.5 (lbs/day) | Exhaust PM2.5 (lbs/day) | Fugitive Dust PM2.5 (lbs/day) | SOx (lbs/day) | CO2 (lbs/day) | CH4 (lbs/day) | N2O (lbs/day) | CO2e (lbs/day) |
| Grubbing/Land Clearing | 5.05 | 30.75 | 37.13 | 11.52 | 1.52 | 10.00 | 3.52 | 1.44 | 2.08 | 0.07 | 5,585.59 | 0.93 | 0.08 | 5,632.10 |
| Grading/Excavation | 9.44 | 63.32 | 88.53 | 13.63 | 3.63 | 10.00 | 5.47 | 3.39 | 2.08 | 0.14 | 12,113.42 | 3.04 | 0.14 | 12,230.28 |
| Drainage/Utilities/Sub-Grade | 7.67 | 52.33 | 64.01 | 12.80 | 2.80 | 10.00 | 4.75 | 2.67 | 2.08 | 0.11 | 9,736.31 | 1.84 | 0.11 | 9,816.07 |
| Paving | 5.49 | 37.78 | 40.29 | 1.91 | 1.91 | 0.00 | 1.81 | 1.81 | 0.00 | 0.08 | 6,085.21 | 1.09 | 0.08 | 6,137.09 |
| Maximum (pounds/day) | 9.44 | 63.32 | 88.53 | 13.63 | 3.63 | 10.00 | 5.47 | 3.39 | 2.08 | 0.14 | 12,113.42 | 3.04 | 0.14 | 12,230.28 |
| Total (tons/construction project) | 0.61 | 4.08 | 5.30 | 0.88 | 0.22 | 0.65 | 0.35 | 0.21 | 0.14 | 0.01 | 757.93 | 0.17 | 0.01 | 764.78 |

Notes:
 Project Start Year -> 2020
 Project Length (months) -> 7
 Total Project Area (acres) -> 17
 Maximum Area Disturbed/Day (acres) -> 1
 Water Truck Used? -> Yes

| Phase | Total Material Imported/Exported Volume (yd ³ /day) | | Daily VMT (miles/day) | | | |
|------------------------------|--|---------|-----------------------|-----------------|----------------|-------------|
| | Soil | Asphalt | Soil Hauling | Asphalt Hauling | Worker Commute | Water Truck |
| Grubbing/Land Clearing | 0 | 0 | 0 | 0 | 400 | 40 |
| Grading/Excavation | 0 | 0 | 0 | 0 | 400 | 40 |
| Drainage/Utilities/Sub-Grade | 0 | 0 | 0 | 0 | 400 | 40 |
| Paving | 0 | 0 | 0 | 0 | 400 | 40 |

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

| Total Emission Estimates by Phase for -> Merced Biogas Pipeline Project | | | | | | | | | | | | | | |
|---|------------------|-----------------|------------------|-------------------|---------------------------|---------------------------------|--------------------------|----------------------------|----------------------------------|------------------|------------------|------------------|------------------|-----------------|
| Project Phases (Tons for all except CO2e. Metric tonnes for CO2e) | ROG (tons/phase) | CO (tons/phase) | NOx (tons/phase) | PM10 (tons/phase) | Exhaust PM10 (tons/phase) | Fugitive Dust PM10 (tons/phase) | Total PM2.5 (tons/phase) | Exhaust PM2.5 (tons/phase) | Fugitive Dust PM2.5 (tons/phase) | SOx (tons/phase) | CO2 (tons/phase) | CH4 (tons/phase) | N2O (tons/phase) | CO2e (MT/phase) |
| Grubbing/Land Clearing | 0.04 | 0.24 | 0.29 | 0.09 | 0.01 | 0.08 | 0.03 | 0.01 | 0.02 | 0.00 | 43.01 | 0.01 | 0.00 | 39.34 |
| Grading/Excavation | 0.33 | 2.19 | 3.07 | 0.47 | 0.13 | 0.35 | 0.19 | 0.12 | 0.07 | 0.00 | 419.73 | 0.11 | 0.00 | 384.45 |
| Drainage/Utilities/Sub-Grade | 0.18 | 1.21 | 1.48 | 0.30 | 0.06 | 0.23 | 0.11 | 0.06 | 0.05 | 0.00 | 224.91 | 0.04 | 0.00 | 205.71 |
| Paving | 0.06 | 0.44 | 0.47 | 0.02 | 0.02 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 | 70.28 | 0.01 | 0.00 | 64.31 |
| Maximum (tons/phase) | 0.33 | 2.19 | 3.07 | 0.47 | 0.13 | 0.35 | 0.19 | 0.12 | 0.07 | 0.00 | 419.73 | 0.11 | 0.00 | 384.45 |
| Total (tons/construction project) | 0.61 | 4.08 | 5.30 | 0.88 | 0.22 | 0.65 | 0.35 | 0.21 | 0.14 | 0.01 | 757.93 | 0.17 | 0.01 | 693.80 |

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.
 The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model

Data Entry Worksheet

Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

Input Type

Project Name

Construction Start Year

Project Type

Project Construction Time

Working Days per Month

Predominant Soil/Site Type: Enter 1, 2, or 3

For project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22

Project Length

Total Project Area

Maximum Area Disturbed/Day

Water Trucks Used?

Version 9.0.0

Merced Biogas Pipeline Project

2020

2

7.00

22.00

2

34.00

16.50

1.00

1


Enter a Year between 2014 and 2040 (inclusive)

1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway
 2) Road Widening : Project to add a new lane to an existing roadway
 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane
 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction

months
days (assume 22 if unknown)

1) Sand Gravel : Use for quaternary deposits (Delta/West County)
 2) Weathered Rock/Earth : Use for Laguna formation (Jackson Highway area) or the Ione formation (Scott Road, Rancho Marieta)
 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Marieta)

miles
acres
acre
1. Yes
2. No



To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Material Hauling Quantity Input

| Material Type | Phase | Haul Truck Capacity (yd ³) (assume 20 if unknown) | Import Volume (yd ³ /day) | Export Volume (yd ³ /day) |
|---------------|------------------------------|---|--------------------------------------|--------------------------------------|
| Soil | Grubbing/Land Clearing | | | |
| | Grading/Excavation | | | |
| | Drainage/Utilities/Sub-Grade | | | |
| | Paving | | | |
| Asphalt | Grubbing/Land Clearing | | | |
| | Grading/Excavation | | | |
| | Drainage/Utilities/Sub-Grade | | | |
| | Paving | | | |

Mitigation Options

On-road Fleet Emissions Mitigation

Off-road Equipment Emissions Mitigation

Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer
 Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (<http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/Mitigation>)
 Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see web link below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/GS-geological.aspx#topofseries

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

| Construction Periods | User Override of Construction Months | Program Calculated Months | User Override of Phase Starting Date | Program Default Phase Starting Date |
|------------------------------|--------------------------------------|---------------------------|--------------------------------------|-------------------------------------|
| Grubbing/Land Clearing | | 0.70 | | 1/1/20 |
| Grading/Excavation | | 3.15 | | 1/23/20 |
| Drainage/Utilities/Sub-Grade | | 2.10 | | 4/28/20 |
| Paving | | 1.05 | | 7/1/20 |
| Totals (Months) | | 7 | | |

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

| Soil Hauling Emissions | | User Override of Miles/Round Trip | Program Estimate of Miles/Round Trip | User Override of Truck Round Trips/Day | Default Values Round Trips/Day | Calculated Daily VMT | | | | | |
|---|--|-----------------------------------|--------------------------------------|--|--------------------------------|----------------------|------------|------------|------------|------------|-------------|
| User Input | | | | | | | | | | | |
| Miles/round trip: Grubbing/Land Clearing | | 30.00 | | | 0 | 0.00 | | | | | |
| Miles/round trip: Grading/Excavation | | 30.00 | | | 0 | 0.00 | | | | | |
| Miles/round trip: Drainage/Utilities/Sub-Grade | | 30.00 | | | 0 | 0.00 | | | | | |
| Miles/round trip: Paving | | 30.00 | | | 0 | 0.00 | | | | | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Drainage/Utilities/Sub-Grade (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grubbing/Land Clearing (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Drainage/Utilities/Sub-Grade (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Grading/Excavation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Note: Asphalt Hauling emission default values can be overridden in cells D91 through D94, and F91 through F94.

| Asphalt Hauling Emissions | | User Override of Miles/Round Trip | Program Estimate of Miles/Round Trip | User Override of Truck Round Trips/Day | Default Values Round Trips/Day | Calculated Daily VMT | | | | | |
|---|--|-----------------------------------|--------------------------------------|--|--------------------------------|----------------------|------------|------------|------------|------------|-------------|
| User Input | | | | | | | | | | | |
| Miles/round trip: Grubbing/Land Clearing | | 30.00 | | | 0 | 0.00 | | | | | |
| Miles/round trip: Grading/Excavation | | 30.00 | | | 0 | 0.00 | | | | | |
| Miles/round trip: Drainage/Utilities/Sub-Grade | | 30.00 | | | 0 | 0.00 | | | | | |
| Miles/round trip: Paving | | 30.00 | | | 0 | 0.00 | | | | | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Drainage/Utilities/Sub-Grade (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grubbing/Land Clearing (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Drainage/Utilities/Sub-Grade (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Grading/Excavation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pounds per day - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tons per const. Period - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons per construction project | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Note: Worker commute default values can be overridden in cells D121 through D126.

| Worker Commute Emissions | | | | | | | | | | | |
|---|--|--|------|----------------|------|-------------|------|----------------------|------|------|--------|
| User Input | | User Override of Worker Commute Default Values | | Default Values | | Calculated | | | | | |
| Miles/ one-way trip | | 20 | | 20 | | Daily Trips | | Calculated Daily VMT | | | |
| One-way trips/day | | 10 | | 89 | | 20 | | 400.00 | | | |
| No. of employees: Grubbing/Land Clearing | | 10 | | 104 | | 20 | | 400.00 | | | |
| No. of employees: Grading/Excavation | | 10 | | 98 | | 20 | | 400.00 | | | |
| No. of employees: Drainage/Utilities/Sub-Grade | | 10 | | 94 | | 20 | | 400.00 | | | |
| No. of employees: Paving | | 10 | | 94 | | 20 | | 400.00 | | | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Grading/Excavation (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Draining/Utilities/Sub-Grade (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Paving (grams/mile) | | 0.02 | 1.22 | 0.11 | 0.05 | 0.02 | 0.00 | 350.90 | 0.01 | 0.01 | 353.67 |
| Grubbing/Land Clearing (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Grading/Excavation (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Draining/Utilities/Sub-Grade (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Paving (grams/trip) | | 1.25 | 3.05 | 0.37 | 0.00 | 0.00 | 0.00 | 75.08 | 0.09 | 0.04 | 88.34 |
| Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.08 | 1.21 | 0.12 | 0.04 | 0.02 | 0.00 | 312.75 | 0.01 | 0.01 | 315.78 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 2.41 | 0.00 | 0.00 | 2.43 |
| Pounds per day - Grading/Excavation | | 0.08 | 1.21 | 0.12 | 0.04 | 0.02 | 0.00 | 312.75 | 0.01 | 0.01 | 315.78 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 10.84 | 0.00 | 0.00 | 10.94 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.08 | 1.21 | 0.12 | 0.04 | 0.02 | 0.00 | 312.75 | 0.01 | 0.01 | 315.78 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 7.22 | 0.00 | 0.00 | 7.29 |
| Pounds per day - Paving | | 0.08 | 1.21 | 0.12 | 0.04 | 0.02 | 0.00 | 312.75 | 0.01 | 0.01 | 315.78 |
| Tons per const. Period - Paving | | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 3.61 | 0.00 | 0.00 | 3.65 |
| Total tons per construction project | | 0.01 | 0.09 | 0.01 | 0.00 | 0.00 | 0.00 | 24.08 | 0.00 | 0.00 | 24.32 |

Note: Water Truck default values can be overridden in cells D153 through D156, I153 through I156, and F153 through F156.

| Water Truck Emissions | | | | | | | | | | | |
|---|--|---|------|--|------|--|------|--|------|-----------------------------|----------|
| User Input | | User Override of Default # Water Trucks | | Program Estimate of Number of Water Trucks | | User Override of Truck Round Trips/Vehicle/Day | | Default Values Round Trips/Vehicle/Day | | Calculated Miles/Round Trip | |
| Grubbing/Land Clearing - Exhaust | | 1 | | 1 | | 5 | | 5 | | 8.00 | |
| Grading/Excavation - Exhaust | | 1 | | 1 | | 5 | | 5 | | 8.00 | |
| Drainage/Utilities/Subgrade | | 1 | | 1 | | 5 | | 5 | | 8.00 | |
| Paving | | 1 | | 1 | | 5 | | 5 | | 8.00 | |
| Emission Rates | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Grubbing/Land Clearing (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grading/Excavation (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Draining/Utilities/Sub-Grade (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Paving (grams/mile) | | 0.04 | 0.42 | 3.03 | 0.11 | 0.05 | 0.02 | 1,801.75 | 0.00 | 0.28 | 1,886.20 |
| Grubbing/Land Clearing (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading/Excavation (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Draining/Utilities/Sub-Grade (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving (grams/trip) | | 0.00 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emissions | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| Pounds per day - Grubbing/Land Clearing | | 0.00 | 0.04 | 0.30 | 0.01 | 0.00 | 0.00 | 158.89 | 0.00 | 0.02 | 166.33 |
| Tons per const. Period - Grubbing/Land Clearing | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 0.00 | 0.00 | 1.26 |
| Pounds per day - Grading/Excavation | | 0.00 | 0.04 | 0.30 | 0.01 | 0.00 | 0.00 | 158.89 | 0.00 | 0.02 | 166.33 |
| Tons per const. Period - Grading/Excavation | | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 5.51 | 0.00 | 0.00 | 5.76 |
| Pounds per day - Drainage/Utilities/Sub-Grade | | 0.00 | 0.04 | 0.30 | 0.01 | 0.00 | 0.00 | 158.89 | 0.00 | 0.02 | 166.33 |
| Tons per const. Period - Drainage/Utilities/Sub-Grade | | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 3.67 | 0.00 | 0.00 | 3.84 |
| Pounds per day - Paving | | 0.00 | 0.04 | 0.30 | 0.01 | 0.00 | 0.00 | 158.89 | 0.00 | 0.02 | 166.33 |
| Tons per const. Period - Paving | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.84 | 0.00 | 0.00 | 1.92 |
| Total tons per construction project | | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 12.23 | 0.00 | 0.00 | 12.81 |

Note: Fugitive dust default values can be overridden in cells D183 through D185.

| Fugitive Dust | | User Override of Max Acreage Disturbed/Day | | Default Maximum Acreage/Day | | PM10 pounds/day | | PM10 tons/per period | | PM2.5 pounds/day | | PM2.5 tons/per period | |
|---|--|--|--|-----------------------------|--|-----------------|--|----------------------|--|------------------|--|-----------------------|--|
| Fugitive Dust - Grubbing/Land Clearing | | 1.00 | | 1.00 | | 10.00 | | 0.08 | | 2.08 | | 0.02 | |
| Fugitive Dust - Grading/Excavation | | 1.00 | | 1.00 | | 10.00 | | 0.35 | | 2.08 | | 0.07 | |
| Fugitive Dust - Drainage/Utilities/Subgrade | | 1.00 | | 1.00 | | 10.00 | | 0.23 | | 2.08 | | 0.05 | |

| Off-Road Equipment Emissions | | | | | | | | | | | | | |
|--|---|---|--------------------|------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Grubbing/Land Clearing | Default | Mitigation Option | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| | Number of Vehicles | Override of | Default | | | | | | | | | | |
| Override of Default Number of Vehicles | Program-estimate | Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected) | Equipment Tier | Type | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day |
| | | | Model Default Tier | Aerial Lifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Air Compressors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Bore/Drill Rigs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Cement and Mortar Mixers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Concrete/Industrial Saws | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Cranes | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 1 | | Model Default Tier | Crawler Tractors | 0.58 | 2.50 | 7.45 | 0.28 | 0.26 | 0.01 | 760.39 | 0.25 | 768.59 |
| | | | Model Default Tier | Crushing/Proc. Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 2 | | Model Default Tier | Excavators | 0.49 | 6.54 | 4.83 | 0.23 | 0.21 | 0.01 | 1,000.24 | 0.32 | 1,011.02 |
| | | | Model Default Tier | Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Generator Sets | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Graders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Off-Highway Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Off-Highway Trucks | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Other Construction Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Other General Industrial Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Other Material Handling Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Pavers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Paving Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Plate Compactors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Pressure Washers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Pumps | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Rollers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Rough Terrain Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Rubber Tired Dozers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Rubber Tired Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Scrapers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 68 | | Model Default Tier | Signal Boards | 3.90 | 20.47 | 24.44 | 0.95 | 0.95 | 0.05 | 3,353.32 | 0.35 | 3,370.38 |
| | | | Model Default Tier | Skid Steer Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Surfacing Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Sweepers/Scrubbers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Tractor/Loaders/Backhoes | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Trenchers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Welders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| User-Defined Off-road Equipment | If non-default vehicles are used, please provide information in "Non-default Off-road Equipment" tab | | | | | | | | | | | | |
| Number of Vehicles | | Equipment Tier | Type | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Grubbing/Land Clearing | | pounds per day | 4.87 | 29.50 | 36.71 | 1.48 | 1.42 | 0.07 | 5,113.85 | 0.92 | 0.04 | 5,149.89 |
| | Grubbing/Land Clearing | | tons per phase | 0.04 | 0.23 | 0.28 | 0.01 | 0.01 | 0.00 | 39.38 | 0.01 | 0.00 | 39.65 |

| Grading/Excavation | Default | | Mitigation Option | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
|--|--------------------|---|--------------------|------------------------------------|--|-------|-------|------|-------|------|-----------|------|------|-----------|--|
| | Number of Vehicles | Override of | Default | Default | | | | | | | | | | | |
| | Program-estimate | Default Equipment Tier (applicable only when Tier 4 Mitigation Option Selected) | Equipment Tier | Type | | | | | | | | | | | |
| | | | Model Default Tier | Aerial Lifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Air Compressors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Backfill Rigs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Cement and Mortar Mixers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Concrete/Industrial Saws | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0 | | Model Default Tier | Cranes | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 1 | | Model Default Tier | Crawler Tractors | 0.58 | 2.50 | 7.45 | 0.28 | 0.26 | 0.01 | 760.39 | 0.25 | 0.01 | 768.59 | |
| | | | Model Default Tier | Crushing/Proc. Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 3 | | Model Default Tier | Excavators | 0.74 | 9.80 | 7.24 | 0.35 | 0.32 | 0.02 | 1,500.38 | 0.49 | 0.01 | 1,516.53 | |
| | | | Model Default Tier | Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Generator Sets | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 2 | | Model Default Tier | Loaders | 0.95 | 3.63 | 12.65 | 0.40 | 0.37 | 0.01 | 1,285.44 | 0.42 | 0.01 | 1,299.27 | |
| | | | Model Default Tier | Off-Highway Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Off-Highway Trucks | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Other Construction Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Other General Industrial Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Other Material Handling Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Pavers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Paving Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Plate Compactors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Pressure Washers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 2 | | Model Default Tier | Pumps | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | | | Model Default Tier | Reliners | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Rough Terrain Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Rubber Tired Dozers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 1 | | Model Default Tier | Rubber Tired Loaders | 0.37 | 1.64 | 4.41 | 0.15 | 0.13 | 0.01 | 805.16 | 0.20 | 0.01 | 811.89 | |
| | 2 | | Model Default Tier | Scrapers | 1.99 | 14.92 | 23.50 | 0.52 | 0.84 | 0.03 | 2,934.03 | 0.63 | 0.03 | 2,965.67 | |
| | 68 | | Model Default Tier | Signal Boards | 3.90 | 20.47 | 24.44 | 0.95 | 0.95 | 0.05 | 3,353.32 | 0.35 | 0.03 | 3,370.38 | |
| | | | Model Default Tier | Skid Steer Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Surfacing Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Sweepers/Scrubbers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 4 | | Model Default Tier | Tractor/Loaders/Backhoes | 0.84 | 9.12 | 8.42 | 0.53 | 0.49 | 0.01 | 1,203.08 | 0.39 | 0.01 | 1,216.03 | |
| | | | Model Default Tier | Trenchers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Welders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| User-Defined Off-road Equipment | | | | | If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab | | | | | | | | | | |
| | Number of Vehicles | | Equipment Tier | Type | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
| | 0.00 | | N/A | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | Grading/Excavation | | pounds per day | 9.36 | 62.07 | 88.11 | 3.58 | 3.37 | 0.13 | 11,641.78 | 3.03 | 0.10 | 11,748.16 | |
| | | Grading/Excavation | | tons per phase | 0.32 | 2.15 | 3.05 | 0.12 | 0.12 | 0.00 | 403.39 | 0.10 | 0.00 | 407.07 | |

| Drainage/Utilities/Subgrade | Default | | Mitigation Option | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e |
|--|---|---|--------------------|------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | Number of Vehicles | Override of Default Equipment Tier (applicable only when Tier 4 Mitigation Option Selected) | Default | Equipment Tier | | | | | | | | | | |
| Override of Default Number of Vehicles | Program-estimate | | | | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day | pounds/day |
| 1.00 | 1 | | Model Default Tier | Aerial Lifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Air Compressors | 0.32 | 2.44 | 2.25 | 0.15 | 0.15 | 0.00 | 375.26 | 0.03 | 0.00 | 376.83 |
| | | | Model Default Tier | Bore/Drill Rigs | 0.28 | 2.08 | 3.52 | 0.10 | 0.09 | 0.01 | 999.81 | 0.29 | 0.01 | 919.65 |
| | | | Model Default Tier | Cement and Mortar Mixers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Concrete/Industrial Saws | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Cranes | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Crawler Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Crushing/Proc. Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Excavators | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 1 | | Model Default Tier | Generator Sets | 0.40 | 3.71 | 3.48 | 0.20 | 0.20 | 0.01 | 623.04 | 0.04 | 0.00 | 625.31 |
| | 1 | | Model Default Tier | Graders | 0.48 | 1.81 | 4.33 | 0.20 | 0.19 | 0.01 | 642.72 | 0.21 | 0.01 | 649.64 |
| | | | Model Default Tier | Off-Highway Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Off-Highway Trucks | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Other Construction Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Other General Industrial Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Other Material Handling Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Pavers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 1 | | Model Default Tier | Paving Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Plate Compactors | 0.04 | 0.21 | 0.25 | 0.01 | 0.01 | 0.00 | 34.48 | 0.00 | 0.00 | 34.65 |
| | | | Model Default Tier | Pressure Washers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 1 | | Model Default Tier | Pumps | 0.42 | 3.76 | 3.53 | 0.21 | 0.21 | 0.01 | 623.04 | 0.04 | 0.00 | 625.36 |
| | | | Model Default Tier | Rollers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 1 | | Model Default Tier | Rough Terrain Forklifts | 0.13 | 2.30 | 1.73 | 0.07 | 0.07 | 0.00 | 333.68 | 0.11 | 0.00 | 337.28 |
| | | | Model Default Tier | Rubber Tired Dozers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Rubber Tired Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Scrapers | 0.99 | 7.46 | 11.75 | 0.46 | 0.42 | 0.02 | 1,467.02 | 0.47 | 0.01 | 1,482.63 |
| | 68 | | Model Default Tier | Signal Boards | 3.90 | 20.47 | 24.44 | 0.95 | 0.95 | 0.05 | 3,353.32 | 0.35 | 0.03 | 3,370.38 |
| | | | Model Default Tier | Skid Steer Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Surfacing Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Sweepers/Scrubbers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3 | | Model Default Tier | Tractor/Loaders/Backhoes | 0.63 | 6.84 | 6.32 | 0.40 | 0.37 | 0.01 | 902.31 | 0.29 | 0.01 | 912.02 |
| | | | Model Default Tier | Trenchers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | Model Default Tier | Welders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| User-Defined Off-road Equipment | If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab | | | | | | | | | | | | | |
| Number of Vehicles | | Equipment Tier | Type | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | Drainage/Utilities/Sub-Grade | | pounds per day | 7.59 | 51.08 | 63.59 | 2.74 | 2.65 | 0.11 | 9,264.67 | 1.83 | 0.08 | 9,333.96 | |
| | Drainage/Utilities/Sub-Grade | | tons per phase | 0.18 | 1.18 | 1.47 | 0.06 | 0.06 | 0.00 | 2,140.01 | 0.04 | 0.00 | 2,156.11 | |

| Paving | Default | | Mitigation Option | | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
|--|--|---|--------------------|------------------------------------|---|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|---------------|--|
| | Number of Vehicles | Override of | Default | Default | | | | | | | | | | | |
| | Override of Default Number of Vehicles | Default Equipment Tier (applicable only when Tier 4 Mitigation Option Selected) | Equipment Tier | Type | | | | | | | | | | | |
| | Program-estimate | | Model Default Tier | Aerial Lifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Air Compressors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Backfill Rigs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Cement and Mortar Mixers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Concrete/Industrial Saws | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Cranes | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Crawler Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Crushing/Proc. Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Excavators | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Generator Sets | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Graders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Off-Highway Tractors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Off-Highway Trucks | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Other Construction Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Other General Industrial Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Other Material Handling Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 1 | | Model Default Tier | Pavers | 2.96 | 2.90 | 2.81 | 0.14 | 0.13 | 0.00 | 455.27 | 0.15 | 0.00 | 460.18 | |
| | 1 | | Model Default Tier | Paving Equipment | 0.21 | 2.53 | 2.14 | 0.11 | 0.10 | 0.00 | 394.53 | 0.13 | 0.00 | 398.78 | |
| | | | Model Default Tier | Plate Compactors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Pressure Washers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Pumps | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 2 | | Model Default Tier | Reilers | 0.42 | 3.79 | 4.16 | 0.27 | 0.24 | 0.01 | 508.13 | 0.16 | 0.00 | 513.61 | |
| | | | Model Default Tier | Rough Terrain Forklifts | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Rubber Tired Dozers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Rubber Tired Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Scrapers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 68 | | Model Default Tier | Signal Boards | 3.90 | 20.47 | 24.44 | 0.95 | 0.95 | 0.05 | 3,363.32 | 0.35 | 0.03 | 3,370.38 | |
| | | | Model Default Tier | Skid Steer Loaders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Surfacing Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Sweepers/Scrubbers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 3 | | Model Default Tier | Tractorloaders/Backhoes | 0.63 | 6.84 | 6.32 | 0.40 | 0.37 | 0.01 | 902.31 | 0.29 | 0.01 | 912.02 | |
| | | | Model Default Tier | Trenchers | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | Model Default Tier | Welders | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| User-Defined Off-road Equipment | | | | | If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab | | | | | | | | | | |
| | Number of Vehicles | | Equipment Tier | Type | ROG | CO | NOx | PM10 | PM2.5 | SOx | CO2 | CH4 | N2O | CO2e | |
| | 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 0.00 | | N/A | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | Paving | | pounds per day | 5.42 | 36.53 | 39.87 | 1.86 | 1.79 | 0.07 | 5,613.56 | 1.08 | 0.05 | 5,664.98 | |
| | | Paving | | tons per phase | 0.06 | 0.42 | 0.46 | 0.02 | 0.02 | 0.00 | 64.84 | 0.01 | 0.00 | 65.31 | |
| Total Emissions all Phases (tons per construction period) => | | | | | 0.60 | 3.98 | 5.27 | 0.22 | 0.21 | 0.01 | 721.62 | 0.17 | 0.01 | 727.66 | |

Equipment default values for horsepower and hours/day can be overridden in cells D403 through D436 and F403 through F436.

| Equipment | User Override of Horsepower | Default Values Horsepower | User Override of Hours/day | Default Values Hours/day |
|------------------------------------|-----------------------------|---------------------------|----------------------------|--------------------------|
| Aerial Lifts | | 65 | | 8 |
| Air Compressors | | 78 | | 8 |
| Bore/Drill Rigs | | 221 | | 8 |
| Cement and Mortar Mixers | | 9 | | 8 |
| Concrete/Industrial Saws | | 81 | | 8 |
| Cranes | | 231 | | 8 |
| Crawler Tractors | | 212 | | 8 |
| Crushing/Proc. Equipment | | 85 | | 8 |
| Excavators | | 158 | | 8 |
| Forklifts | | 89 | | 8 |
| Generator Sets | | 84 | | 8 |
| Graders | | 187 | | 8 |
| Off-Highway Tractors | | 124 | | 8 |
| Off-Highway Trucks | | 402 | | 8 |
| Other Construction Equipment | | 172 | | 8 |
| Other General Industrial Equipment | | 88 | | 8 |
| Other Material Handling Equipment | | 168 | | 8 |
| Pavers | | 130 | | 8 |
| Paving Equipment | | 132 | | 8 |
| Plate Compactors | | 8 | | 8 |
| Pressure Washers | | 13 | | 8 |
| Pumps | | 84 | | 8 |
| Rollers | | 80 | | 8 |
| Rough Terrain Forklifts | | 100 | | 8 |
| Rubber Tired Dozers | | 247 | | 8 |
| Rubber Tired Loaders | | 203 | | 8 |
| Scrapers | | 387 | | 8 |
| Signal Boards | | 6 | | 8 |
| Skid Steer Loaders | | 65 | | 8 |
| Surfacing Equipment | | 283 | | 8 |
| Sweepers/Scrubbers | | 64 | | 8 |
| Tractors/Loaders/Backhoes | | 97 | | 8 |
| Trenchers | | 78 | | 8 |
| Welders | | 46 | | 8 |

END OF DATA ENTRY SHEET