

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

University Research Park Mixed Use
Yolo/Solano AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|--------|---------------|-------------|--------------------|------------|
| Apartments Mid Rise | 160.00 | Dwelling Unit | 4.50 | 138,431.00 | 458 |
| Research & Development | 27.00 | 1000sqft | 0.00 | 27,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|--------------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 6.8 | Precipitation Freq (Days) | 55 |
| Climate Zone | 2 | | | Operational Year | 2022 |
| 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

Project Characteristics -
 Land Use - Mixed Use Multi-Story Building.
 Construction Phase - No Demolition.
 Road Dust - Project located in urbanized portion of the city.
 Woodstoves - No woodstoves or fireplaces.
 Land Use Change -
 Sequestration -

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| Table Name | Column Name | Default Value | New Value |
|----------------------|--------------------|---------------|------------|
| tblConstructionPhase | NumDays | 20.00 | 0.00 |
| tblConstructionPhase | PhaseEndDate | 6/28/2021 | 5/31/2021 |
| tblFireplaces | NumberGas | 88.00 | 0.00 |
| tblFireplaces | NumberNoFireplace | 16.00 | 160.00 |
| tblFireplaces | NumberWood | 56.00 | 0.00 |
| tblLandUse | LandUseSquareFeet | 160,000.00 | 138,431.00 |
| tblLandUse | LotAcreage | 4.21 | 4.50 |
| tblLandUse | LotAcreage | 0.62 | 0.00 |
| tblRoadDust | RoadPercentPave | 94 | 100 |
| tblSequestration | NumberOfNewTrees | 0.00 | 80.00 |
| tblWoodstoves | NumberCatalytic | 8.00 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 8.00 | 0.00 |

2.0 Emissions Summary

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2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 4.5171 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | 0.0000 | 23.7743 | 23.7743 | 0.0230 | 0.0000 | 24.3479 |
| Energy | 0.0610 | 0.5290 | 0.2811 | 3.3200e-003 | | 0.0421 | 0.0421 | | 0.0421 | 0.0421 | | 664.9399 | 664.9399 | 0.0127 | 0.0122 | 668.8913 |
| Mobile | 2.6002 | 15.6489 | 24.4971 | 0.1019 | 7.0118 | 0.0801 | 7.0919 | 1.8823 | 0.0753 | 1.9575 | | 10,371.0698 | 10,371.0698 | 0.4933 | | 10,383.4034 |
| Total | 7.1782 | 16.3303 | 37.9954 | 0.1059 | 7.0118 | 0.1952 | 7.2070 | 1.8823 | 0.1904 | 2.0727 | 0.0000 | 11,059.7840 | 11,059.7840 | 0.5290 | 0.0122 | 11,076.6426 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 4.5171 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | 0.0000 | 23.7743 | 23.7743 | 0.0230 | 0.0000 | 24.3479 |
| Energy | 0.0610 | 0.5290 | 0.2811 | 3.3200e-003 | | 0.0421 | 0.0421 | | 0.0421 | 0.0421 | | 664.9399 | 664.9399 | 0.0127 | 0.0122 | 668.8913 |
| Mobile | 2.6002 | 15.6489 | 24.4971 | 0.1019 | 7.0118 | 0.0801 | 7.0919 | 1.8823 | 0.0753 | 1.9575 | | 10,371.0698 | 10,371.0698 | 0.4933 | | 10,383.4034 |
| Total | 7.1782 | 16.3303 | 37.9954 | 0.1059 | 7.0118 | 0.1952 | 7.2070 | 1.8823 | 0.1904 | 2.0727 | 0.0000 | 11,059.7840 | 11,059.7840 | 0.5290 | 0.0122 | 11,076.6426 |

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 6/1/2021 | 5/31/2021 | 5 | 0 | None |
| 2 | Site Preparation | Site Preparation | 6/29/2021 | 7/5/2021 | 5 | 5 | |
| 3 | Grading | Grading | 7/6/2021 | 7/15/2021 | 5 | 8 | |
| 4 | Building Construction | Building Construction | 7/16/2021 | 6/2/2022 | 5 | 230 | |
| 5 | Paving | Paving | 6/3/2022 | 6/28/2022 | 5 | 18 | |
| 6 | Architectural Coating | Architectural Coating | 6/29/2022 | 7/22/2022 | 5 | 18 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 280,323; Residential Outdoor: 93,441; Non-Residential Indoor: 40,500; Non-Residential Outdoor: 13,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 2 | 6.00 | 9 | 0.56 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 6.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Paving | Paving Equipment | 2 | 6.00 | 132 | 0.36 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

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3.2 Demolition - 2021

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|----------------|--------------------|----------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0662 | 0.0340 | 0.4549 | 1.4100e-003 | 16.0239 | 9.1000e-004 | 16.0248 | 1.6206 | 8.4000e-004 | 1.6214 | | 141.0287 | 141.0287 | 3.3300e-003 | | 141.1120 |
| Total | 0.0662 | 0.0340 | 0.4549 | 1.4100e-003 | 16.0239 | 9.1000e-004 | 16.0248 | 1.6206 | 8.4000e-004 | 1.6214 | | 141.0287 | 141.0287 | 3.3300e-003 | | 141.1120 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| Total | 3.8882 | 40.4971 | 21.1543 | 0.0380 | 18.0663 | 2.0445 | 20.1107 | 9.9307 | 1.8809 | 11.8116 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0662 | 0.0340 | 0.4549 | 1.4100e-003 | 0.1298 | 9.1000e-004 | 0.1307 | 0.0346 | 8.4000e-004 | 0.0354 | | 141.0287 | 141.0287 | 3.3300e-003 | | 141.1120 |
| Total | 0.0662 | 0.0340 | 0.4549 | 1.4100e-003 | 0.1298 | 9.1000e-004 | 0.1307 | 0.0346 | 8.4000e-004 | 0.0354 | | 141.0287 | 141.0287 | 3.3300e-003 | | 141.1120 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.5523 | 0.0000 | 6.5523 | 3.3675 | 0.0000 | 3.3675 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2903 | 24.7367 | 15.8575 | 0.0296 | | 1.1599 | 1.1599 | | 1.0671 | 1.0671 | | 2,871.9285 | 2,871.9285 | 0.9288 | | 2,895.1495 |
| Total | 2.2903 | 24.7367 | 15.8575 | 0.0296 | 6.5523 | 1.1599 | 7.7123 | 3.3675 | 1.0671 | 4.4346 | | 2,871.9285 | 2,871.9285 | 0.9288 | | 2,895.1495 |

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3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|----------------|--------------------|----------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0552 | 0.0284 | 0.3791 | 1.1800e-003 | 13.3533 | 7.6000e-004 | 13.3540 | 1.3505 | 7.0000e-004 | 1.3512 | | 117.5239 | 117.5239 | 2.7800e-003 | | 117.5933 |
| Total | 0.0552 | 0.0284 | 0.3791 | 1.1800e-003 | 13.3533 | 7.6000e-004 | 13.3540 | 1.3505 | 7.0000e-004 | 1.3512 | | 117.5239 | 117.5239 | 2.7800e-003 | | 117.5933 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.5523 | 0.0000 | 6.5523 | 3.3675 | 0.0000 | 3.3675 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2903 | 24.7367 | 15.8575 | 0.0296 | | 1.1599 | 1.1599 | | 1.0671 | 1.0671 | 0.0000 | 2,871.9285 | 2,871.9285 | 0.9288 | | 2,895,1495 |
| Total | 2.2903 | 24.7367 | 15.8575 | 0.0296 | 6.5523 | 1.1599 | 7.7123 | 3.3675 | 1.0671 | 4.4346 | 0.0000 | 2,871.9285 | 2,871.9285 | 0.9288 | | 2,895,1495 |

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3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0552 | 0.0284 | 0.3791 | 1.1800e-003 | 0.1082 | 7.6000e-004 | 0.1089 | 0.0288 | 7.0000e-004 | 0.0295 | | 117.5239 | 117.5239 | 2.7800e-003 | | 117.5933 |
| Total | 0.0552 | 0.0284 | 0.3791 | 1.1800e-003 | 0.1082 | 7.6000e-004 | 0.1089 | 0.0288 | 7.0000e-004 | 0.0295 | | 117.5239 | 117.5239 | 2.7800e-003 | | 117.5933 |

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

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3.5 Building Construction - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|-----------------|---------------|-----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0639 | 2.2862 | 0.3974 | 6.1900e-003 | 13.7350 | 5.3100e-003 | 13.7403 | 1.3966 | 5.0800e-003 | 1.4016 | | 647.3612 | 647.3612 | 0.0357 | | 648.2547 |
| Worker | 0.4562 | 0.2344 | 3.1335 | 9.7500e-003 | 110.3870 | 6.2600e-003 | 110.3932 | 11.1641 | 5.7700e-003 | 11.1699 | | 971.5313 | 971.5313 | 0.0229 | | 972.1048 |
| Total | 0.5201 | 2.5207 | 3.5309 | 0.0159 | 124.1220 | 0.0116 | 124.1336 | 12.5607 | 0.0109 | 12.5715 | | 1,618.8924 | 1,618.8924 | 0.0587 | | 1,620.3595 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

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3.5 Building Construction - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0639 | 2.2862 | 0.3974 | 6.1900e-003 | 0.1367 | 5.3100e-003 | 0.1420 | 0.0396 | 5.0800e-003 | 0.0447 | | 647.3612 | 647.3612 | 0.0357 | | 648.2547 |
| Worker | 0.4562 | 0.2344 | 3.1335 | 9.7500e-003 | 0.8941 | 6.2600e-003 | 0.9003 | 0.2381 | 5.7700e-003 | 0.2439 | | 971.5313 | 971.5313 | 0.0229 | | 972.1048 |
| Total | 0.5201 | 2.5207 | 3.5309 | 0.0159 | 1.0308 | 0.0116 | 1.0424 | 0.2778 | 0.0109 | 0.2886 | | 1,618.8924 | 1,618.8924 | 0.0587 | | 1,620.3595 |

3.5 Building Construction - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|-----------------|---------------|-----------------|----------------|--------------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0592 | 2.1739 | 0.3651 | 6.1300e-003 | 13.7350 | 4.5300e-003 | 13.7395 | 1.3966 | 4.3300e-003 | 1.4009 | | 641.2632 | 641.2632 | 0.0338 | | 642.1079 |
| Worker | 0.4254 | 0.2105 | 2.8833 | 9.3900e-003 | 110.3870 | 6.1000e-003 | 110.3931 | 11.1641 | 5.6200e-003 | 11.1698 | | 936.0015 | 936.0015 | 0.0206 | | 936.5167 |
| Total | 0.4846 | 2.3844 | 3.2484 | 0.0155 | 124.1220 | 0.0106 | 124.1326 | 12.5607 | 9.9500e-003 | 12.5706 | | 1,577.2647 | 1,577.2647 | 0.0544 | | 1,578.6246 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

3.5 Building Construction - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0592 | 2.1739 | 0.3651 | 6.1300e-003 | 0.1367 | 4.5300e-003 | 0.1412 | 0.0396 | 4.3300e-003 | 0.0439 | | 641.2632 | 641.2632 | 0.0338 | | 642.1079 |
| Worker | 0.4254 | 0.2105 | 2.8833 | 9.3900e-003 | 0.8941 | 6.1000e-003 | 0.9002 | 0.2381 | 5.6200e-003 | 0.2438 | | 936.0015 | 936.0015 | 0.0206 | | 936.5167 |
| Total | 0.4846 | 2.3844 | 3.2484 | 0.0155 | 1.0308 | 0.0106 | 1.0414 | 0.2778 | 9.9500e-003 | 0.2877 | | 1,577.2647 | 1,577.2647 | 0.0544 | | 1,578.6246 |

3.6 Paving - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9765 | 9.5221 | 12.1940 | 0.0189 | | 0.4877 | 0.4877 | | 0.4504 | 0.4504 | | 1,805.1297 | 1,805.1297 | 0.5672 | | 1,819.3091 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9765 | 9.5221 | 12.1940 | 0.0189 | | 0.4877 | 0.4877 | | 0.4504 | 0.4504 | | 1,805.1297 | 1,805.1297 | 0.5672 | | 1,819.3091 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

3.6 Paving - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|----------------|--------------------|----------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0686 | 0.0340 | 0.4650 | 1.5100e-003 | 17.8044 | 9.8000e-004 | 17.8053 | 1.8007 | 9.1000e-004 | 1.8016 | | 150.9680 | 150.9680 | 3.3200e-003 | | 151.0511 |
| Total | 0.0686 | 0.0340 | 0.4650 | 1.5100e-003 | 17.8044 | 9.8000e-004 | 17.8053 | 1.8007 | 9.1000e-004 | 1.8016 | | 150.9680 | 150.9680 | 3.3200e-003 | | 151.0511 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9765 | 9.5221 | 12.1940 | 0.0189 | | 0.4877 | 0.4877 | | 0.4504 | 0.4504 | 0.0000 | 1,805.1297 | 1,805.1297 | 0.5672 | | 1,819.3091 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.9765 | 9.5221 | 12.1940 | 0.0189 | | 0.4877 | 0.4877 | | 0.4504 | 0.4504 | 0.0000 | 1,805.1297 | 1,805.1297 | 0.5672 | | 1,819.3091 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

3.6 Paving - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0686 | 0.0340 | 0.4650 | 1.5100e-003 | 0.1442 | 9.8000e-004 | 0.1452 | 0.0384 | 9.1000e-004 | 0.0393 | | 150.9680 | 150.9680 | 3.3200e-003 | | 151.0511 |
| Total | 0.0686 | 0.0340 | 0.4650 | 1.5100e-003 | 0.1442 | 9.8000e-004 | 0.1452 | 0.0384 | 9.1000e-004 | 0.0393 | | 150.9680 | 150.9680 | 3.3200e-003 | | 151.0511 |

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 117.1017 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2045 | 1.4085 | 1.8136 | 2.9700e-003 | | 0.0817 | 0.0817 | | 0.0817 | 0.0817 | | 281.4481 | 281.4481 | 0.0183 | | 281.9062 |
| Total | 117.3063 | 1.4085 | 1.8136 | 2.9700e-003 | | 0.0817 | 0.0817 | | 0.0817 | 0.0817 | | 281.4481 | 281.4481 | 0.0183 | | 281.9062 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|----------------|--------------------|----------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0858 | 0.0424 | 0.5813 | 1.8900e-003 | 22.2554 | 1.2300e-003 | 22.2567 | 2.2508 | 1.1300e-003 | 2.2520 | | 188.7100 | 188.7100 | 4.1600e-003 | | 188.8139 |
| Total | 0.0858 | 0.0424 | 0.5813 | 1.8900e-003 | 22.2554 | 1.2300e-003 | 22.2567 | 2.2508 | 1.1300e-003 | 2.2520 | | 188.7100 | 188.7100 | 4.1600e-003 | | 188.8139 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|-----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 117.1017 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2045 | 1.4085 | 1.8136 | 2.9700e-003 | | 0.0817 | 0.0817 | | 0.0817 | 0.0817 | 0.0000 | 281.4481 | 281.4481 | 0.0183 | | 281.9062 |
| Total | 117.3063 | 1.4085 | 1.8136 | 2.9700e-003 | | 0.0817 | 0.0817 | | 0.0817 | 0.0817 | 0.0000 | 281.4481 | 281.4481 | 0.0183 | | 281.9062 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0858 | 0.0424 | 0.5813 | 1.8900e-003 | 0.1803 | 1.2300e-003 | 0.1815 | 0.0480 | 1.1300e-003 | 0.0491 | | 188.7100 | 188.7100 | 4.1600e-003 | | 188.8139 |
| Total | 0.0858 | 0.0424 | 0.5813 | 1.8900e-003 | 0.1803 | 1.2300e-003 | 0.1815 | 0.0480 | 1.1300e-003 | 0.0491 | | 188.7100 | 188.7100 | 4.1600e-003 | | 188.8139 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 2.6002 | 15.6489 | 24.4971 | 0.1019 | 7.0118 | 0.0801 | 7.0919 | 1.8823 | 0.0753 | 1.9575 | | 10,371.0698 | 10,371.0698 | 0.4933 | | 10,383.4034 |
| Unmitigated | 2.6002 | 15.6489 | 24.4971 | 0.1019 | 7.0118 | 0.0801 | 7.0919 | 1.8823 | 0.0753 | 1.9575 | | 10,371.0698 | 10,371.0698 | 0.4933 | | 10,383.4034 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 1,064.00 | 1,022.40 | 937.60 | 2,729,228 | 2,729,228 |
| Research & Development | 218.97 | 51.30 | 29.97 | 368,859 | 368,859 |
| Total | 1,282.97 | 1,073.70 | 967.57 | 3,098,087 | 3,098,087 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Apartments Mid Rise | 10.00 | 5.00 | 7.00 | 46.00 | 13.00 | 41.00 | 86 | 11 | 3 |
| Research & Development | 10.00 | 5.00 | 7.00 | 33.00 | 48.00 | 19.00 | 82 | 15 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise | 0.523474 | 0.037926 | 0.194068 | 0.114815 | 0.021291 | 0.005457 | 0.036110 | 0.054974 | 0.001332 | 0.002002 | 0.006933 | 0.000689 | 0.000929 |
| Research & Development | 0.523474 | 0.037926 | 0.194068 | 0.114815 | 0.021291 | 0.005457 | 0.036110 | 0.054974 | 0.001332 | 0.002002 | 0.006933 | 0.000689 | 0.000929 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0610 | 0.5290 | 0.2811 | 3.3200e-003 | | 0.0421 | 0.0421 | | 0.0421 | 0.0421 | | 664.9399 | 664.9399 | 0.0127 | 0.0122 | 668.8913 |
| NaturalGas Unmitigated | 0.0610 | 0.5290 | 0.2811 | 3.3200e-003 | | 0.0421 | 0.0421 | | 0.0421 | 0.0421 | | 664.9399 | 664.9399 | 0.0127 | 0.0122 | 668.8913 |

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|---------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Mid Rise | 4273.14 | 0.0461 | 0.3938 | 0.1676 | 2.5100e-003 | | 0.0318 | 0.0318 | | 0.0318 | 0.0318 | | 502.7223 | 502.7223 | 9.6400e-003 | 9.2200e-003 | 505.7098 |
| Research & Development | 1378.85 | 0.0149 | 0.1352 | 0.1136 | 8.1000e-004 | | 0.0103 | 0.0103 | | 0.0103 | 0.0103 | | 162.2176 | 162.2176 | 3.1100e-003 | 2.9700e-003 | 163.1815 |
| Total | | 0.0610 | 0.5290 | 0.2811 | 3.3200e-003 | | 0.0421 | 0.0421 | | 0.0421 | 0.0421 | | 664.9399 | 664.9399 | 0.0128 | 0.0122 | 668.8913 |

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|---------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Apartments Mid Rise | 4.27314 | 0.0461 | 0.3938 | 0.1676 | 2.5100e-003 | | 0.0318 | 0.0318 | | 0.0318 | 0.0318 | | 502.7223 | 502.7223 | 9.6400e-003 | 9.2200e-003 | 505.7098 |
| Research & Development | 1.37885 | 0.0149 | 0.1352 | 0.1136 | 8.1000e-004 | | 0.0103 | 0.0103 | | 0.0103 | 0.0103 | | 162.2176 | 162.2176 | 3.1100e-003 | 2.9700e-003 | 163.1815 |
| Total | | 0.0610 | 0.5290 | 0.2811 | 3.3200e-003 | | 0.0421 | 0.0421 | | 0.0421 | 0.0421 | | 664.9399 | 664.9399 | 0.0128 | 0.0122 | 668.8913 |

6.0 Area Detail

6.1 Mitigation Measures Area

University Research Park Mixed Use - Yolo/Solano AQMD Air District, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|--------|---------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|---------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 4.5171 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | 0.0000 | 23.7743 | 23.7743 | 0.0230 | 0.0000 | 24.3479 |
| Unmitigated | 4.5171 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | 0.0000 | 23.7743 | 23.7743 | 0.0230 | 0.0000 | 24.3479 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|----------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.5775 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 3.5402 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.3994 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | | 23.7743 | 23.7743 | 0.0230 | | 24.3479 |
| Total | 4.5171 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | 0.0000 | 23.7743 | 23.7743 | 0.0230 | 0.0000 | 24.3479 |

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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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.5775 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 3.5402 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.3994 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | | 23.7743 | 23.7743 | 0.0230 | | 24.3479 |
| Total | 4.5171 | 0.1524 | 13.2172 | 7.0000e-004 | | 0.0730 | 0.0730 | | 0.0730 | 0.0730 | 0.0000 | 23.7743 | 23.7743 | 0.0230 | 0.0000 | 24.3479 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

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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
