



LM Helendale Radar Measurement Facility - Mojave Desert AQMD Air District, Summer

**LM Helendale Radar Measurement Facility**  
**Mojave Desert AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	19.39	1000sqft	0.45	19,395.00	0
Other Asphalt Surfaces	54.22	1000sqft	1.24	54,221.00	0

**1.2 Other Project Characteristics**

Urbanization Urban Wind Speed (m/s) 2.6 Precipitation Freq (Days) 30  
 Climate Zone 10 Operational Year 2021

Utility Company Southern California Edison

CO2 Intensity (lb/MW/hr) 702.44 CH4 Intensity (lb/MW/hr) 0.029 N2O Intensity (lb/MW/hr) 0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - Per schedule

Grading - Grading as stated

Trips and VMT - Borrow Pit3 is 1.5 miles

Construction Off-road Equipment Mitigation - Tier 3 engines

Area Mitigation -

Table Name	Column Name	Default Value	New Value
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tblGrading	MaterialImported	0.00	16,209.00
tblGrading	MaterialImported	0.00	16,209.00
tblLandUse	LandUseSquareFeet	19,390.00	19,395.00
tblLandUse	LandUseSquareFeet	54,220.00	54,221.00
tblTripsAndVMT	HaulingTripLength	20.00	1.50
tblTripsAndVMT	HaulingTripLength	20.00	1.50

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	48.9903	37.1034	14.5922	0.0534	5.7380	0.8320	6.5700	2.9942	0.7757	3.7601	0.0000	5,452.478	15,452.4784	1.2027	0.0000	5,482.545
Maximum	48.9903	37.1034	14.5922	0.0534	5.7380	0.8320	6.5700	2.9942	0.7757	3.7601	0.0000	5,452.478	15,452.4784	1.2027	0.0000	5,482.545

#### Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	48.8075	27.1659	14.8827	0.0534	2.7174	0.7388	3.1032	1.3843	0.7384	1.7696	0.0000	5,452.478	15,452.4784	1.2027	0.0000	5,482.545
Maximum	48.8075	27.1659	14.8827	0.0534	2.7174	0.7388	3.1032	1.3843	0.7384	1.7696	0.0000	5,452.478	15,452.4784	1.2027	0.0000	5,482.545

	ROG	NOx	CO	SO2	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	0.37	26.78	-1.99	0.00	52.64	11.21	52.77	53.77	4.81	52.94	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**  
**Unmitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	0.0161	4.0000e-005		0.0172
Energy	0.0186	0.1693	0.1422	1.0200e-003	0.0129	0.0129	0.0129	0.0129	0.0129	0.0129	203.1083	203.1083	203.1083	3.8900e-003	3.7200e-003	204.3153
Mobile	0.3455	2.5013	3.4635	0.0136	0.8438	8.5300e-003	0.8523	0.2258	8.0700e-003	0.2339	1,392.8912	2	1,392.8912	0.1002		1,395.3967
<b>Total</b>	<b>0.9325</b>	<b>2.6707</b>	<b>3.6132</b>	<b>0.0147</b>	<b>0.8438</b>	<b>0.0214</b>	<b>0.8652</b>	<b>0.2258</b>	<b>0.0209</b>	<b>0.2467</b>	<b>1,596.0157</b>	<b>7</b>	<b>1,596.0157</b>	<b>0.1042</b>	<b>3.7200e-003</b>	<b>1,599.7292</b>

**Mitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	0.0161	4.0000e-005		0.0172
Energy	0.0186	0.1693	0.1422	1.0200e-003	0.0129	0.0129	0.0129	0.0129	0.0129	0.0129	203.1083	203.1083	203.1083	3.8900e-003	3.7200e-003	204.3153
Mobile	0.3455	2.5013	3.4635	0.0136	0.8438	8.5300e-003	0.8523	0.2258	8.0700e-003	0.2339	1,392.8912	2	1,392.8912	0.1002		1,395.3967

Total	0.9325	2.6707	3.6132	0.0147	0.8438	0.0214	0.8652	0.2258	0.0209	0.2467	1,596.0157	0.1042	3.7200e-003	1,599.7292
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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	N20	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation		1/29/2020	2/18/2020	5	15	
2	Grading		2/19/2020	3/17/2020	5	20	
3	Building Construction		3/18/2020	9/15/2020	5	130	
4	Paving		9/16/2020	9/29/2020	5	10	
5	Architectural Coating		9/30/2020	10/13/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.69

Acres of Paving: 1.24

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,093; Non-Residential Outdoor: 9,698; Striped Parking Area:

#### 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



Category	lb/day										lb/day						
Fugitive Dust											5.4919	0.0000	2.9271	0.0000	2.9271	0.0000	0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172	0.8210	0.8210	0.8210	0.7553	0.7553	1.667.411	1.667.411	0.5393	0.5393	0.5393	1.680.893	1.680.893	7
<b>Total</b>	<b>1.6299</b>	<b>18.3464</b>	<b>7.7093</b>	<b>0.0172</b>	<b>5.4919</b>	<b>0.8210</b>	<b>6.3128</b>	<b>2.9271</b>	<b>0.7553</b>	<b>3.6824</b>	<b>1.667.411</b>	<b>0.5393</b>	<b>0.5393</b>	<b>1.680.893</b>	<b>1.680.893</b>	<b>7</b>	

**Unmitigated Construction Off-Site**

Category	lb/day										lb/day					
Hauling	0.3883	18.7321	1.5669	0.0355	0.1804	0.0107	0.1910	0.0497	0.0102	0.0599	3.718.250	3.718.2509	0.6611	3.734.777	3.734.777	7
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	0.0395	0.0249	0.2901	6.7000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178	66.8156	66.8156	2.3300e-003	66.8738	66.8738	7
<b>Total</b>	<b>0.4278</b>	<b>18.7569</b>	<b>1.8570</b>	<b>0.0362</b>	<b>0.2461</b>	<b>0.0111</b>	<b>0.2571</b>	<b>0.0672</b>	<b>0.0106</b>	<b>0.0777</b>	<b>3.785.066</b>	<b>3.785.0665</b>	<b>0.6634</b>	<b>3.801.651</b>	<b>3.801.651</b>	<b>6</b>

**Mitigated Construction On-Site**

Category	lb/day										lb/day					
Fugitive Dust											2.4713	0.0000	1.3172	0.0000	1.3172	0.0000
Off-Road	0.4212	8.4089	9.8221	0.0172	0.3747	0.3747	0.3747	0.3747	0.3747	1.667.411	1.667.411	0.5393	0.5393	1.680.893	1.680.893	7

Total	0.4212	8.4089	9.8221	0.0172	2.4713	0.3747	2.8461	1.3172	0.3747	1.6919	0.0000	1,667.4119	0.5393	1,680.8937
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**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Hauling	0.3883	18.7321	1.5669	0.0355	0.1804	0.0107	0.1910	0.0497	0.0102	0.0599		3,718.2509	3,718.2509	0.6611		3,734.7777
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	0.0395	0.0249	0.2901	6.7000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178		66.8156	66.8156	2.3300e-003		66.8738
<b>Total</b>	<b>0.4278</b>	<b>18.7569</b>	<b>1.8570</b>	<b>0.0362</b>	<b>0.2461</b>	<b>0.0111</b>	<b>0.2571</b>	<b>0.0672</b>	<b>0.0106</b>	<b>0.0777</b>		<b>3,785.0665</b>	<b>3,785.0665</b>	<b>0.6634</b>		<b>3,801.6516</b>

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					4.7201	0.0000	4.7201	2.5096	0.0000	2.5096			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	1,365.7183	0.4417		1,376.7609
<b>Total</b>	<b>1.3498</b>	<b>15.0854</b>	<b>6.4543</b>	<b>0.0141</b>	<b>4.7201</b>	<b>0.6844</b>	<b>5.4044</b>	<b>2.5096</b>	<b>0.6296</b>	<b>3.1392</b>		<b>1,365.7183</b>	<b>1,365.7183</b>	<b>0.4417</b>		<b>1,376.7609</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.2912	14.0491	1.1752	0.0266	0.1353	7.9900e-003	0.1433	0.0373	7.6400e-003	0.0449		2.788.688	2.788.6882	0.4958		2.801.083
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	0.0395	0.0249	0.2901	6.7000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178		66.8156	66.8156	2.3300e-003		66.8738
<b>Total</b>	<b>0.3307</b>	<b>14.0739</b>	<b>1.4653</b>	<b>0.0273</b>	<b>0.2010</b>	<b>8.4100e-003</b>	<b>0.2094</b>	<b>0.0547</b>	<b>8.0200e-003</b>	<b>0.0628</b>		<b>2.855.503</b>	<b>2.855.5038</b>	<b>0.4981</b>		<b>2.867.957</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					2.1240	0.0000	2.1240	1.1293	0.0000	1.1293			0.0000			0.0000
Off-Road	0.3450	6.9025	8.0841	0.0141		0.3106	0.3106		0.3106	0.3106			1.365.718	1.365.7183	0.4417	1.376.760
<b>Total</b>	<b>0.3450</b>	<b>6.9025</b>	<b>8.0841</b>	<b>0.0141</b>	<b>2.1240</b>	<b>0.3106</b>	<b>2.4346</b>	<b>1.1293</b>	<b>0.3106</b>	<b>1.4399</b>	<b>0.0000</b>	<b>1.365.718</b>	<b>1.365.7183</b>	<b>0.4417</b>		<b>1.376.760</b>

**Mitigated Construction Off-Site**

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

Hauling	0.2912	14.0491	1.1752	0.0266	0.1353	7.9900e-003	0.1433	0.0373	7.6400e-003	0.0449	2,788.688	2,788.6882	0.4958	2,801.083
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	0.0395	0.0249	0.2901	6.7000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178	66.8156	66.8156	2.3300e-003	66.8738
<b>Total</b>	<b>0.3307</b>	<b>14.0739</b>	<b>1.4653</b>	<b>0.0273</b>	<b>0.2010</b>	<b>8.4100e-003</b>	<b>0.2094</b>	<b>0.0547</b>	<b>8.0200e-003</b>	<b>0.0628</b>	<b>2,855.503</b>	<b>2,855.5038</b>	<b>0.4981</b>	<b>2,867.957</b>

### 3.4 Building Construction - 2020 Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	2.0305	14.7882	13.1881	0.0220	0.7960	0.7960	0.7960	0.7688	0.7688	0.7688		2,001.159	2,001.1595	0.3715		2,010.446
<b>Total</b>	<b>2.0305</b>	<b>14.7882</b>	<b>13.1881</b>	<b>0.0220</b>	<b>0.7960</b>	<b>0.7960</b>	<b>0.7960</b>	<b>0.7688</b>	<b>0.7688</b>	<b>0.7688</b>		<b>2,001.159</b>	<b>2,001.1595</b>	<b>0.3715</b>		<b>2,010.446</b>

### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0399	1.2363	0.2800	3.6000e-003	0.0814	5.6400e-003	0.0870	0.0234	5.3900e-003	0.0288		375.5431	375.5431	0.0316		376.3326
Worker	0.1529	0.0963	1.1241	2.6000e-003	0.2547	1.6100e-003	0.2563	0.0676	1.4900e-003	0.0690		258.9105	258.9105	9.0200e-003		259.1361
<b>Total</b>	<b>0.1928</b>	<b>1.3326</b>	<b>1.4041</b>	<b>6.2000e-003</b>	<b>0.3360</b>	<b>7.2500e-003</b>	<b>0.3433</b>	<b>0.0910</b>	<b>6.8800e-003</b>	<b>0.0979</b>		<b>634.4536</b>	<b>634.4536</b>	<b>0.0406</b>		<b>635.4686</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
OffRoad	0.6407	12.0767	13.4786	0.0220	0.7315	0.7315	0.7315	0.7315	0.7315	0.7315	0.0000	2,001.159	2,001.1595	0.3715		2,010.446
Total	0.6407	12.0767	13.4786	0.0220	0.7315	0.7315	0.7315	0.7315	0.7315	0.7315	0.0000	2,001.159	2,001.1595	0.3715		2,010.446

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
Vendor	0.0399	1.2363	0.2800	3.6000e-003	0.0814	5.6400e-003	0.0870	0.0234	5.3900e-003	0.0288	375.5431	375.5431	375.5431	0.0316		376.3326
Worker	0.1529	0.0963	1.1241	2.6000e-003	0.2547	1.6100e-003	0.2563	0.0676	1.4900e-003	0.0690	258.9105	258.9105	258.9105	9.0200e-003		259.1361
Total	0.1928	1.3326	1.4041	6.2000e-003	0.3360	7.2500e-003	0.3433	0.0910	6.8800e-003	0.0979	634.4536	634.4536	634.4536	0.0406		635.4686

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	0.8402	8.4514	8.8758	0.0135	0.4695	0.4695	0.4695	0.4328	0.4328	0.4328	1,296.9461	1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.3249				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1650</b>	<b>8.4514</b>	<b>8.8758</b>	<b>0.0135</b>	<b>0.4695</b>	<b>0.4695</b>	<b>0.4695</b>	<b>0.4328</b>	<b>0.4328</b>	<b>0.4328</b>	<b>1,296.9461</b>	<b>1,296.9461</b>	<b>1,296.9461</b>	<b>0.4111</b>		<b>1,307.2246</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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
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
Worker	0.0641	0.0404	0.4714	1.0900e-003	0.1068	6.8000e-004	0.1075	0.0283	6.2000e-004	0.0290	108.5754	108.5754	108.5754	3.7800e-003		108.6700
<b>Total</b>	<b>0.0641</b>	<b>0.0404</b>	<b>0.4714</b>	<b>1.0900e-003</b>	<b>0.1068</b>	<b>6.8000e-004</b>	<b>0.1075</b>	<b>0.0283</b>	<b>6.2000e-004</b>	<b>0.0290</b>	<b>108.5754</b>	<b>108.5754</b>	<b>108.5754</b>	<b>3.7800e-003</b>		<b>108.6700</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	0.3195	6.6399	9.9512	0.0135	0.3864	0.3864	0.3864	0.3864	0.3864	0.3864	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246
<b>Total</b>	<b>0.3195</b>	<b>6.6399</b>	<b>9.9512</b>	<b>0.0135</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.0000</b>	<b>1,296.9461</b>	<b>1,296.9461</b>	<b>0.4111</b>		<b>1,307.2246</b>



Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0296	0.0186	0.2176	5.0000e-004	0.0493	3.1000e-004	0.0496	0.0131	2.9000e-004	0.0134	50.1117	50.1117	50.1117	1.7500e-003	50.1554	50.1554
<b>Total</b>	<b>0.0296</b>	<b>0.0186</b>	<b>0.2176</b>	<b>5.0000e-004</b>	<b>0.0493</b>	<b>3.1000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>2.9000e-004</b>	<b>0.0134</b>	<b>50.1117</b>	<b>50.1117</b>	<b>50.1117</b>	<b>1.7500e-003</b>	<b>50.1554</b>	<b>50.1554</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	48.7185				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003	0.0951	0.0951	0.0951	0.0951	0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>48.7779</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

**Mitigated Construction Off-Site**

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







Category	lb/day												
Mitigated	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	4.0000e-005	0.0172
Unmitigated	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	4.0000e-005	0.0172

## 6.2 Area by SubCategory

### Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.1335				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4343				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0161	0.0161	4.0000e-005		0.0172
<b>Total</b>	<b>0.5684</b>	<b>7.0000e-005</b>	<b>7.5400e-003</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0161</b>	<b>0.0161</b>	<b>4.0000e-005</b>		<b>0.0172</b>

### Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.1335				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4343				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0161	0.0161	4.0000e-005		0.0172

Total	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	4.0000e-005	0.0172
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## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

LM Helendale Radar Measurement Facility - Mojave Desert AQMD Air District, Winter

### LM Helendale Radar Measurement Facility

Mojave Desert AQMD Air District, Winter

## 1.0 Project Characteristics

### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	19.39	1000sqft	0.45	19,395.00	0
Other Asphalt Surfaces	54.22	1000sqft	1.24	54,221.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10			Operational Year	2021

Utility Company Southern California Edison

CO2 Intensity (lb/MW/hr)	702.44	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Per schedule

Grading - Grading as stated

Trips and VMT - Borrow Pit3 is 1.5 miles

Construction Off-road Equipment Mitigation - Tier 3 engines

Area Mitigation -

Table Name	Column Name	Default Value	New Value
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tblGrading	MaterialImported	0.00	16,209.00
tblGrading	MaterialImported	0.00	16,209.00
tblLandUse	LandUseSquareFeet	19,390.00	19,395.00
tblLandUse	LandUseSquareFeet	54,220.00	54,221.00
tblTripsAndVMT	HaulingTripLength	20.00	1.50
tblTripsAndVMT	HaulingTripLength	20.00	1.50

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	48.9885	36.3108	14.4147	0.0494	5.7380	0.8330	6.5710	2.9942	0.7758	3.7611	0.0000	5,042.185	15,042.1855	1.2909	0.0000	5,074.457
Maximum	48.9885	36.3108	14.4147	0.0494	5.7380	0.8330	6.5710	2.9942	0.7758	3.7611	0.0000	5,042.185	15,042.1855	1.2909	0.0000	5,074.457

#### Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	48.8058	26.3733	14.7052	0.0494	2.7174	0.7388	3.1042	1.3843	0.7384	1.7706	0.0000	5,042.185	15,042.1855	1.2909	0.0000	5,074.457
Maximum	48.8058	26.3733	14.7052	0.0494	2.7174	0.7388	3.1042	1.3843	0.7384	1.7706	0.0000	5,042.185	15,042.1855	1.2909	0.0000	5,074.457

	ROG	NOx	CO	SO2	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	0.37	27.37	-2.02	0.00	52.64	11.31	52.76	53.77	4.81	52.92	0.00	0.00	0.00	0.00	0.00	0.00

**2.2 Overall Operational**  
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Area	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	0.0161	4.0000e-005		0.0172
Energy	0.0186	0.1693	0.1422	1.0200e-003	0.0129	0.0129	0.0129	0.0129	0.0129	0.0129	203.1083	203.1083	203.1083	3.8900e-003	3.7200e-003	204.3153
Mobile	0.2931	2.4661	3.0188	0.0124	0.8438	8.6100e-003	0.8524	0.2258	8.0900e-003	0.2339	1,267.9657	1,267.9657	1,267.9657	0.1058		1,270.6106
<b>Total</b>	<b>0.8802</b>	<b>2.6354</b>	<b>3.1685</b>	<b>0.0134</b>	<b>0.8438</b>	<b>0.0215</b>	<b>0.8653</b>	<b>0.2258</b>	<b>0.0210</b>	<b>0.2468</b>	<b>1,471.0901</b>	<b>1,471.0901</b>	<b>1,471.0901</b>	<b>0.1097</b>	<b>3.7200e-003</b>	<b>1,474.9431</b>

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Area	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	0.0161	4.0000e-005		0.0172
Energy	0.0186	0.1693	0.1422	1.0200e-003	0.0129	0.0129	0.0129	0.0129	0.0129	0.0129	203.1083	203.1083	203.1083	3.8900e-003	3.7200e-003	204.3153
Mobile	0.2931	2.4661	3.0188	0.0124	0.8438	8.6100e-003	0.8524	0.2258	8.0900e-003	0.2339	1,267.9657	1,267.9657	1,267.9657	0.1058		1,270.6106

Total	0.8802	2.6354	3.1685	0.0134	0.8438	0.0215	0.8653	0.2258	0.0210	0.2468	1,471.090	1,471.0901	0.1097	3.7200e-003	1,474.943
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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	N20	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation		1/29/2020	2/18/2020	5	15	
2	Grading		2/19/2020	3/17/2020	5	20	
3	Building Construction		3/18/2020	9/15/2020	5	130	
4	Paving		9/16/2020	9/29/2020	5	10	
5	Architectural Coating		9/30/2020	10/13/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.69

Acres of Paving: 1.24

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 29,093; Non-Residential Outdoor: 9,698; Striped Parking Area:

#### 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



Category	lb/day										lb/day										
Fugitive Dust											5.4919	0.0000	2.9271	0.0000	2.9271	0.0000					
Off-Road	1.6299	18.3464	7.7093	0.0172	0.8210	0.8210	0.8210	0.7553	1.667.411	0.5393	0.7553	0.7553	0.7553	1.667.411	0.5393	1.667.411	0.5393				
<b>Total</b>	<b>1.6299</b>	<b>18.3464</b>	<b>7.7093</b>	<b>0.0172</b>	<b>0.8210</b>	<b>0.8210</b>	<b>0.8210</b>	<b>0.7553</b>	<b>1.667.411</b>	<b>0.5393</b>	<b>0.7553</b>	<b>0.7553</b>	<b>0.7553</b>	<b>1.667.411</b>	<b>0.5393</b>	<b>1.667.411</b>	<b>0.5393</b>				

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.4377	17.9389	2.4790	0.0316	0.1804	0.0117	0.1920	0.0497	0.0112	0.0609			3.316.098	13.316.0988	0.7496	3.334.839
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	0.0372	0.0256	0.2316	5.9000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178			58.6749	58.6749	1.9900e-003	58.7247
<b>Total</b>	<b>0.4749</b>	<b>17.9644</b>	<b>2.7106</b>	<b>0.0322</b>	<b>0.2461</b>	<b>0.0121</b>	<b>0.2582</b>	<b>0.0672</b>	<b>0.0115</b>	<b>0.0787</b>			<b>3.374.773</b>	<b>13.374.7737</b>	<b>0.7516</b>	<b>3.393.563</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust													0.0000	0.0000		0.0000
Off-Road	0.4212	8.4089	9.8221	0.0172	0.3747	0.3747	0.3747	0.3747	0.3747	0.3747			1.667.411	1.667.4119	0.5393	1.680.893
<b>Total</b>	<b>0.4212</b>	<b>8.4089</b>	<b>9.8221</b>	<b>0.0172</b>	<b>0.3747</b>	<b>0.3747</b>	<b>0.3747</b>	<b>0.3747</b>	<b>0.3747</b>	<b>0.3747</b>			<b>1.667.411</b>	<b>1.667.4119</b>	<b>0.5393</b>	<b>1.680.893</b>

Total	0.4212	8.4089	9.8221	0.0172	2.4713	0.3747	2.8461	1.3172	0.3747	1.6919	0.0000	1,667.4119	0.5393	1,680.8937
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**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.4377	17.9389	2.4790	0.0316	0.1804	0.0117	0.1920	0.0497	0.0112	0.0609		3,316.0988	0.7496			3,334.8393
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	0.0372	0.0256	0.2316	5.9000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178		58.6749	58.6749	1.9900e-003		58.7247
<b>Total</b>	<b>0.4749</b>	<b>17.9644</b>	<b>2.7106</b>	<b>0.0322</b>	<b>0.2461</b>	<b>0.0121</b>	<b>0.2582</b>	<b>0.0672</b>	<b>0.0115</b>	<b>0.0787</b>		<b>3,374.7737</b>	<b>0.7516</b>			<b>3,393.5639</b>

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					4.7201	0.0000	4.7201	2.5096	0.0000	2.5096			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	0.4417			1,376.7609
<b>Total</b>	<b>1.3498</b>	<b>15.0854</b>	<b>6.4543</b>	<b>0.0141</b>	<b>4.7201</b>	<b>0.6844</b>	<b>5.4044</b>	<b>2.5096</b>	<b>0.6296</b>	<b>3.1392</b>		<b>1,365.7183</b>	<b>0.4417</b>			<b>1,376.7609</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.3283	13.4542	1.8593	0.0237	0.1353	8.7500e-003	0.1440	0.0373	8.3700e-003	0.0457		2.487,074 <sup>1</sup>	2,487,074 <sup>1</sup>	0.5622		2,501,129 <sup>5</sup>
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	0.0372	0.0256	0.2316	5.9000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178		58.6749	58,6749	1.9900e-003		58,7247
<b>Total</b>	<b>0.3655</b>	<b>13.4797</b>	<b>2.0909</b>	<b>0.0243</b>	<b>0.2010</b>	<b>9.1700e-003</b>	<b>0.2102</b>	<b>0.0547</b>	<b>8.7500e-003</b>	<b>0.0635</b>		<b>2,545,749<sup>0</sup></b>	<b>2,545,749<sup>0</sup></b>	<b>0.5642</b>		<b>2,559,854<sup>1</sup></b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					2.1240	0.0000	2.1240	1.1293	0.0000	1.1293			0.0000			0.0000
Off-Road	0.3450	6.9025	8.0841	0.0141		0.3106	0.3106		0.3106	0.3106		1,365,718 <sup>3</sup>	1,365,718 <sup>3</sup>	0.4417		1,376,760 <sup>9</sup>
<b>Total</b>	<b>0.3450</b>	<b>6.9025</b>	<b>8.0841</b>	<b>0.0141</b>	<b>2.1240</b>	<b>0.3106</b>	<b>2.4346</b>	<b>1.1293</b>	<b>0.3106</b>	<b>1.4399</b>	<b>0.0000</b>	<b>1,365,718<sup>3</sup></b>	<b>1,365,718<sup>3</sup></b>	<b>0.4417</b>		<b>1,376,760<sup>9</sup></b>

**Mitigated Construction Off-Site**

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

Hauling	0.3283	13.4542	1.8593	0.0237	0.1353	8.7500e-003	0.1440	0.0373	8.3700e-003	0.0457	2.4870741	2.4870741	0.5622	2.501.1295
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	0.0372	0.0256	0.2316	5.9000e-004	0.0657	4.2000e-004	0.0661	0.0174	3.8000e-004	0.0178	58.6749	58.6749	1.9900e-003	58.7247
<b>Total</b>	<b>0.3655</b>	<b>13.4797</b>	<b>2.0909</b>	<b>0.0243</b>	<b>0.2010</b>	<b>9.1700e-003</b>	<b>0.2102</b>	<b>0.0547</b>	<b>8.7500e-003</b>	<b>0.0635</b>	<b>2.545.7490</b>	<b>2.545.7490</b>	<b>0.5642</b>	<b>2,559.8541</b>

### 3.4 Building Construction - 2020 Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
<b>Total</b>	<b>2.0305</b>	<b>14.7882</b>	<b>13.1881</b>	<b>0.0220</b>		<b>0.7960</b>	<b>0.7960</b>		<b>0.7688</b>	<b>0.7688</b>		<b>2,001.1595</b>	<b>2,001.1595</b>	<b>0.3715</b>		<b>2,010.4467</b>

### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0424	1.2164	0.3291	3.4200e-003	0.0814	5.6900e-003	0.0871	0.0234	5.4500e-003	0.0289		357.4766	357.4766	0.0356		358.3654
Worker	0.1440	0.0990	0.8975	2.2800e-003	0.2547	1.6100e-003	0.2563	0.0676	1.4900e-003	0.0690		227.3652	227.3652	7.7100e-003		227.5580
<b>Total</b>	<b>0.1864</b>	<b>1.3154</b>	<b>1.2266</b>	<b>5.7000e-003</b>	<b>0.3360</b>	<b>7.3000e-003</b>	<b>0.3434</b>	<b>0.0910</b>	<b>6.9400e-003</b>	<b>0.0979</b>		<b>584.8417</b>	<b>584.8417</b>	<b>0.0433</b>		<b>585.9234</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
OffRoad	0.6407	12.0767	13.4786	0.0220	0.7315	0.7315	0.7315	0.7315	0.7315	0.7315	0.0000	2,001.159	2,001.1595	0.3715		2,010.446
Total	0.6407	12.0767	13.4786	0.0220	0.7315	0.7315	0.7315	0.7315	0.7315	0.7315	0.0000	2,001.159	2,001.1595	0.3715		2,010.446

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
Vendor	0.0424	1.2164	0.3291	3.4200e-003	0.0814	5.6900e-003	0.0871	0.0234	5.4500e-003	0.0289		357.4766	357.4766	0.0356		358.3654
Worker	0.1440	0.0990	0.8975	2.2800e-003	0.2547	1.6100e-003	0.2563	0.0676	1.4900e-003	0.0690		227.3652	227.3652	7.7100e-003		227.5680
Total	0.1864	1.3154	1.2266	5.7000e-003	0.3360	7.3000e-003	0.3434	0.0910	6.9400e-003	0.0979		584.8417	584.8417	0.0433		585.9234

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	lb/day																
Off-Road	0.8402	8.4514	8.8758	0.0135	0.4695	0.4695	0.4695	0.4328	0.4328	0.4328	1,296.9461	1,296.9461	1,296.9461	0.4111			1,307.2246
Paving	0.3249				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000				0.0000
<b>Total</b>	<b>1.1650</b>	<b>8.4514</b>	<b>8.8758</b>	<b>0.0135</b>	<b>0.4695</b>	<b>0.4695</b>	<b>0.4695</b>	<b>0.4328</b>	<b>0.4328</b>	<b>0.4328</b>	<b>1,296.9461</b>	<b>1,296.9461</b>	<b>1,296.9461</b>	<b>0.4111</b>			<b>1,307.2246</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	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
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
Worker	0.0604	0.0415	0.3764	9.6000e-004	0.1068	6.8000e-004	0.1075	0.0283	6.2000e-004	0.0290	95.3467	95.3467	95.3467	3.2300e-003			95.4276
<b>Total</b>	<b>0.0604</b>	<b>0.0415</b>	<b>0.3764</b>	<b>9.6000e-004</b>	<b>0.1068</b>	<b>6.8000e-004</b>	<b>0.1075</b>	<b>0.0283</b>	<b>6.2000e-004</b>	<b>0.0290</b>	<b>95.3467</b>	<b>95.3467</b>	<b>95.3467</b>	<b>3.2300e-003</b>			<b>95.4276</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	lb/day																
Off-Road	0.3195	6.6399	9.9512	0.0135	0.3864	0.3864	0.3864	0.3864	0.3864	0.3864	0.0000	1,296.9461	1,296.9461	0.4111			1,307.2246
																	0.0000
<b>Total</b>	<b>0.3195</b>	<b>6.6399</b>	<b>9.9512</b>	<b>0.0135</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.3864</b>	<b>0.0000</b>	<b>1,296.9461</b>	<b>1,296.9461</b>	<b>0.4111</b>			<b>1,307.2246</b>



Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0279	0.0192	0.1737	4.4000e-004	0.0493	3.1000e-004	0.0496	0.0131	2.9000e-004	0.0134	44.0062	44.0062	44.0062	1.4900e-003		44.0435
<b>Total</b>	<b>0.0279</b>	<b>0.0192</b>	<b>0.1737</b>	<b>4.4000e-004</b>	<b>0.0493</b>	<b>3.1000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>2.9000e-004</b>	<b>0.0134</b>	<b>44.0062</b>	<b>44.0062</b>	<b>44.0062</b>	<b>1.4900e-003</b>		<b>44.0435</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	48.7185				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003	0.0951	0.0951	0.0951	0.0951	0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>48.7779</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

**Mitigated Construction Off-Site**

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







Category	lb/day												
Mitigated	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	4.0000e-005	0.0172
Unmitigated	0.5684	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	4.0000e-005	0.0172

## 6.2 Area by SubCategory

### Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.1335				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4343				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0161	0.0161	4.0000e-005		0.0172
<b>Total</b>	<b>0.5684</b>	<b>7.0000e-005</b>	<b>7.5400e-003</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0161</b>	<b>0.0161</b>	<b>4.0000e-005</b>		<b>0.0172</b>

### Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.1335				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4343				0.0000	0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-004	7.0000e-005	7.5400e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0161	0.0161	4.0000e-005		0.0172

Total	0.5684	7.0000e-005	7.5400e-003	0.0000		3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0161	0.0161	4.0000e-005	0.0172
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## 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

### 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

LM Helendale Radar Measurement Facility - Mojave Desert AQMD Air District, Annual

**LM Helendale Radar Measurement Facility**  
**Mojave Desert AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	19.39	1000sqft	0.45	19,395.00	0
Other Asphalt Surfaces	54.22	1000sqft	1.24	54,221.00	0

**1.2 Other Project Characteristics**

Urbanization Urban Wind Speed (m/s) 2.6 Precipitation Freq (Days) 30  
 Climate Zone 10 Operational Year 2021

Utility Company Southern California Edison

CO2 Intensity (lb/MW/hr) 702.44 CH4 Intensity (lb/MW/hr) 0.029 N2O Intensity (lb/MW/hr) 0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - Per schedule

Grading - Grading as stated

Trips and VMT - Borrow Pit3 is 1.5 miles

Construction Off-road Equipment Mitigation - Tier 3 engines

Area Mitigation -

Table Name	Column Name	Default Value	New Value
------------	-------------	---------------	-----------

tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	200.00	130.00
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	2.00	15.00
tblGrading	AcresOfGrading	7.50	1.69
tblGrading	AcresOfGrading	7.50	1.00

tblGrading	MaterialImported	0.00	16,209.00
tblGrading	MaterialImported	0.00	16,209.00
tblLandUse	LandUseSquareFeet	19,390.00	19,395.00
tblLandUse	LandUseSquareFeet	54,220.00	54,221.00
tblTripsAndVMT	HaulingTripLength	20.00	1.50
tblTripsAndVMT	HaulingTripLength	20.00	1.50

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

Year	tons/yr											MIT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	0.4266	1.6657	1.1526	2.6900e-003	0.1144	0.0683	0.1827	0.0541	0.0653	0.1194	0.0000	234.3272	234.3272	0.0436	0.0000	235.4165
Maximum	0.4266	1.6657	1.1526	2.6900e-003	0.1144	0.0683	0.1827	0.0541	0.0653	0.1194	0.0000	234.3272	234.3272	0.0436	0.0000	235.4165

#### Mitigated Construction

Year	tons/yr											MIT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	0.3137	1.3224	1.2085	2.6900e-003	0.0658	0.0565	0.1223	0.0282	0.0565	0.0847	0.0000	234.3270	234.3270	0.0436	0.0000	235.4163
Maximum	0.3137	1.3224	1.2085	2.6900e-003	0.0658	0.0565	0.1223	0.0282	0.0565	0.0847	0.0000	234.3270	234.3270	0.0436	0.0000	235.4163

	ROG	NOx	CO	SO2	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	26.48	20.61	-4.85	0.00	42.48	17.24	33.05	47.83	13.45	29.03	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOx (tons/quarter)	Maximum Mitigated ROG + NOx (tons/quarter)
1	1-1-2020	3-31-2020	0.6825	0.4865
2	4-1-2020	6-30-2020	0.5962	0.4629
3	7-1-2020	9-30-2020	0.5712	0.4465
		Highest	0.6825	0.4865

## 2.2 Overall Operational Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Area	0.1037	1.0000e-005	6.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	0.0000	0.0000	1.4000e-003
Energy	3.4000e-003	0.0309	0.0260	1.9000e-004	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	0.0000	96.3504	96.3504	3.2300e-003	1.1500e-003	96.7747
Mobile	0.0393	0.3485	0.4331	1.7600e-003	0.1140	1.1800e-003	0.1151	0.0306	1.1000e-003	0.0317	0.0000	163.0720	163.0720	0.0127	0.0000	163.3899
Waste						0.0000	0.0000	0.0000	0.0000	0.0000	4.8799	0.0000	4.8799	0.2884	0.0000	12.0898
Water						0.0000	0.0000	0.0000	0.0000	0.0000	1.4226	18.6028	20.0254	0.1469	3.6100e-003	24.7727
<b>Total</b>	<b>0.1463</b>	<b>0.3794</b>	<b>0.4597</b>	<b>1.9500e-003</b>	<b>0.1140</b>	<b>3.5300e-003</b>	<b>0.1175</b>	<b>0.0306</b>	<b>3.4500e-003</b>	<b>0.0340</b>	<b>6.3025</b>	<b>278.0265</b>	<b>284.3290</b>	<b>0.4512</b>	<b>4.7600e-003</b>	<b>297.0284</b>

## Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Area	0.1037	1.0000e-005	6.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3200e-003	1.3200e-003	0.0000	0.0000	1.4000e-003
Energy	3.4000e-003	0.0309	0.0260	1.9000e-004	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	0.0000	96.3504	96.3504	3.2300e-003	1.1500e-003	96.7747
Mobile	0.0393	0.3485	0.4331	1.7600e-003	0.1140	1.1800e-003	0.1151	0.0306	1.1000e-003	0.0317	0.0000	163.0720	163.0720	0.0127	0.0000	163.3899
Waste					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.8799	0.0000	4.8799	0.2884	0.0000	12.0898
Water					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4226	18.6028	20.0254	0.1469	3.6100e-003	24.7727
<b>Total</b>	<b>0.1463</b>	<b>0.3794</b>	<b>0.4597</b>	<b>1.9500e-003</b>	<b>0.1140</b>	<b>3.5300e-003</b>	<b>0.1175</b>	<b>0.0306</b>	<b>3.4500e-003</b>	<b>0.0340</b>	<b>6.3025</b>	<b>278.0265</b>	<b>284.3290</b>	<b>0.4512</b>	<b>4.7600e-003</b>	<b>297.0284</b>

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

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2020	2/18/2020	5	15	
2	Grading	Grading	2/19/2020	3/17/2020	5	20	
3	Building Construction	Building Construction	3/18/2020	9/15/2020	5	130	
4	Paving	Paving	9/16/2020	9/29/2020	5	10	
5	Architectural Coating	Architectural Coating	9/30/2020	10/13/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.69

Acres of Paving: 1.24

Residential Indoor: 0; Residential Outdoor: 29,093; Non-Residential Indoor: 9,698; Non-Residential Outdoor: 9,698; Striped Parking Area:

**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**

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	2,026.00	10.80	7.30	1.50	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	2,026.00	10.80	7.30	1.50	LD_Mix	HDT_Mix	HHDT
Building Construction	7	31.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment  
Water Exposed Area

**3.2 Site Preparation - 2020**  
**Unmitigated Construction On-Site**

Category	tons/yr										MIT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0412	0.0000	0.0412	0.0220	0.0000	0.0220	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.1376	0.0578	1.3000e-004	6.1600e-003	6.1600e-003	6.1600e-003	5.6600e-003	5.6600e-003	5.6600e-003	0.0000	11.3449	11.3449	3.6700e-003	0.0000	11.4366
<b>Total</b>	<b>0.0122</b>	<b>0.1376</b>	<b>0.0578</b>	<b>1.3000e-004</b>	<b>0.0412</b>	<b>6.1600e-003</b>	<b>0.0474</b>	<b>0.0220</b>	<b>5.6600e-003</b>	<b>0.0276</b>	<b>0.0000</b>	<b>11.3449</b>	<b>11.3449</b>	<b>3.6700e-003</b>	<b>0.0000</b>	<b>11.4366</b>

**Unmitigated Construction Off-Site**

Category	tons/yr										MIT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	3.0700e-003	0.1384	0.0148	2.5000e-004	1.3300e-003	8.0000e-005	1.4200e-003	3.7000e-004	8.0000e-005	4.5000e-004	0.0000	24.1494	24.1494	4.7600e-003	0.0000	24.2685
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	2.1000e-004	1.8600e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4116	0.4116	1.0000e-005	0.0000	0.4120
<b>Total</b>	<b>3.3200e-003</b>	<b>0.1386</b>	<b>0.0167</b>	<b>2.5000e-004</b>	<b>1.8100e-003</b>	<b>8.0000e-005</b>	<b>1.9100e-003</b>	<b>5.0000e-004</b>	<b>8.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>24.5610</b>	<b>24.5610</b>	<b>4.7700e-003</b>	<b>0.0000</b>	<b>24.6804</b>

**Mitigated Construction On-Site**



Fugitive Dust					0.0472	0.0000	0.0472	0.0251	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.1509	0.0645	1.4000e-004	6.8400e-003	6.8400e-003	6.8400e-003	6.3000e-003	0.0000	12.3896	12.3896	4.0100e-003	0.0000	0.0000	0.0000	12.4898
<b>Total</b>	<b>0.0135</b>	<b>0.1509</b>	<b>0.0645</b>	<b>1.4000e-004</b>	<b>0.0472</b>	<b>6.8400e-003</b>	<b>0.0540</b>	<b>0.0251</b>	<b>0.0000</b>	<b>12.3896</b>	<b>12.3896</b>	<b>4.0100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>12.4898</b>

**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Hauling	3.0700e-003	0.1384	0.0148	2.5000e-004	1.3300e-003	8.0000e-005	1.4200e-003	3.7000e-004	8.0000e-005	4.5000e-004	0.0000	24.1494	24.1494	4.7600e-003	0.0000	24.2685
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	2.4800e-005	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5488	0.5488	2.0000e-005	0.0000	0.5493
<b>Total</b>	<b>3.4100e-003</b>	<b>0.1386</b>	<b>0.0173</b>	<b>2.6000e-004</b>	<b>1.9800e-003</b>	<b>8.0000e-005</b>	<b>2.0700e-003</b>	<b>5.4000e-004</b>	<b>8.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>24.6982</b>	<b>24.6982</b>	<b>4.7800e-003</b>	<b>0.0000</b>	<b>24.8177</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Fugitive Dust					0.0212	0.0000	0.0212	0.0113	0.0000	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0690	0.0808	1.4000e-004	3.1100e-003	3.1100e-003	3.1100e-003	3.1100e-003	3.1100e-003	3.1100e-003	0.0000	12.3896	12.3896	4.0100e-003	0.0000	12.4898
<b>Total</b>	<b>3.4500e-003</b>	<b>0.0690</b>	<b>0.0808</b>	<b>1.4000e-004</b>	<b>0.0212</b>	<b>3.1100e-003</b>	<b>0.0244</b>	<b>0.0113</b>	<b>3.1100e-003</b>	<b>0.0144</b>	<b>0.0000</b>	<b>12.3896</b>	<b>12.3896</b>	<b>4.0100e-003</b>	<b>0.0000</b>	<b>12.4898</b>

**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																
	MIT/yr																
Hauling	3.0700e-003	0.1384	0.0148	2.5000e-004	1.3300e-003	8.0000e-005	1.4200e-003	3.7000e-004	8.0000e-005	4.5000e-004	0.0000	24.1494	24.1494	4.7600e-003	0.0000	0.0000	24.2685
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	0.0000
Worker	3.4000e-004	2.7000e-004	2.4800e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5488	0.5488	2.0000e-005	0.0000	0.0000	0.5493
<b>Total</b>	<b>3.4100e-003</b>	<b>0.1386</b>	<b>0.0173</b>	<b>2.6000e-004</b>	<b>1.9800e-003</b>	<b>8.0000e-005</b>	<b>2.0700e-003</b>	<b>5.4000e-004</b>	<b>8.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>24.6982</b>	<b>24.6982</b>	<b>4.7800e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>24.8177</b>

**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																
	MIT/yr																
Off-Road	0.1320	0.9612	0.8572	1.4300e-003		0.0517	0.0517		0.0500	0.0500	0.0000	118.0024	118.0024	0.0219	0.0000	0.0000	118.5500
<b>Total</b>	<b>0.1320</b>	<b>0.9612</b>	<b>0.8572</b>	<b>1.4300e-003</b>		<b>0.0517</b>	<b>0.0517</b>		<b>0.0500</b>	<b>0.0500</b>	<b>0.0000</b>	<b>118.0024</b>	<b>118.0024</b>	<b>0.0219</b>	<b>0.0000</b>	<b>0.0000</b>	<b>118.5500</b>

**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
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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	0.0000
Vendor	2.6500e-003	0.0809	0.0200	2.3000e-004	5.2100e-003	3.7000e-004	5.5800e-003	1.5000e-003	3.5000e-004	1.8600e-003	21.6972	21.6972	1.9700e-003	0.0000	0.0000	0.0000	21.7464
Worker	8.5000e-003	6.8900e-003	0.0626	1.5000e-004	0.0163	1.0000e-004	0.0164	4.3200e-003	1.0000e-004	4.4100e-003	13.8229	13.8229	4.7000e-004	0.0000	0.0000	0.0000	13.8347
<b>Total</b>	<b>0.0112</b>	<b>0.0878</b>	<b>0.0826</b>	<b>3.8000e-004</b>	<b>0.0215</b>	<b>4.7000e-004</b>	<b>0.0219</b>	<b>5.8200e-003</b>	<b>4.5000e-004</b>	<b>6.2700e-003</b>	<b>35.5201</b>	<b>35.5201</b>	<b>2.4400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>35.5811</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
OffRoad	0.0417	0.7850	0.8761	1.4300e-003	0.0476	0.0476	0.0476	0.0476	0.0476	0.0476	0.0000	118.0023	118.0023	0.0219	0.0000	118.5499
<b>Total</b>	<b>0.0417</b>	<b>0.7850</b>	<b>0.8761</b>	<b>1.4300e-003</b>	<b>0.0476</b>	<b>0.0476</b>	<b>0.0476</b>	<b>0.0476</b>	<b>0.0476</b>	<b>0.0476</b>	<b>0.0000</b>	<b>118.0023</b>	<b>118.0023</b>	<b>0.0219</b>	<b>0.0000</b>	<b>118.5499</b>

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6500e-003	0.0809	0.0200	2.3000e-004	5.2100e-003	3.7000e-004	5.5800e-003	1.5000e-003	3.5000e-004	1.8600e-003	0.0000	21.6972	21.6972	1.9700e-003	0.0000	21.7464
Worker	8.5000e-003	6.8900e-003	0.0626	1.5000e-004	0.0163	1.0000e-004	0.0164	4.3200e-003	1.0000e-004	4.4100e-003	0.0000	13.8229	13.8229	4.7000e-004	0.0000	13.8347

Total	0.0112	0.0878	0.0826	3.8000e-004	0.0215	4.7000e-004	0.0219	5.8200e-003	4.5000e-004	6.2700e-003	0.0000	35.5201	35.5201	2.4400e-003	0.0000	35.5811
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### 3.5 Paving - 2020

#### Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	4.2000e-003	0.0423	0.0444	7.0000e-005	2.3500e-003	2.3500e-003	2.3500e-003	2.1600e-003	2.1600e-003	2.1600e-003	0.0000	5.8829	5.8829	1.8600e-003	0.0000	5.9295
Paving	1.6200e-003				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.8200e-003</b>	<b>0.0423</b>	<b>0.0444</b>	<b>7.0000e-005</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.1600e-003</b>	<b>2.1600e-003</b>	<b>2.1600e-003</b>	<b>0.0000</b>	<b>5.8829</b>	<b>5.8829</b>	<b>1.8600e-003</b>	<b>0.0000</b>	<b>5.9295</b>

#### Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.2000e-004	2.0200e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4459	0.4459	2.0000e-005	0.0000	0.4463
<b>Total</b>	<b>2.7000e-004</b>	<b>2.2000e-004</b>	<b>2.0200e-003</b>	<b>0.0000</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4459</b>	<b>0.4459</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.4463</b>

#### 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															
Off-Road	1.6000e-003	0.0332	0.0493	7.0000e-005	1.9300e-003	1.9300e-003	1.9300e-003	1.9300e-003	1.9300e-003	1.9300e-003	0.0000	5.8828	5.8828	1.8600e-003	0.0000	5.9295
Paving	1.6200e-003				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.2200e-003</b>	<b>0.0332</b>	<b>0.0493</b>	<b>7.0000e-005</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>5.8828</b>	<b>5.8828</b>	<b>1.8600e-003</b>	<b>0.0000</b>	<b>5.9295</b>

**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															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.2000e-004	2.0200e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4459	0.4459	2.0000e-005	0.0000	0.4463
<b>Total</b>	<b>2.7000e-004</b>	<b>2.2000e-004</b>	<b>2.0200e-003</b>	<b>0.0000</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4459</b>	<b>0.4459</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.4463</b>

**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															



**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
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	1.3000e-004	1.0000e-004	9.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2058	0.2058	1.0000e-005	0.0000	0.2060
<b>Total</b>	<b>1.3000e-004</b>	<b>1.0000e-004</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.2058</b>	<b>0.2058</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2060</b>
MT/yr																

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Mitigated	0.0393	0.3485	0.4331	1.7600e-003	0.1140	1.1800e-003	0.1151	0.0306	1.1000e-003	0.0317	0.0000	163.0720	163.0720	0.0127	0.0000	163.3899
Unmitigated	0.0393	0.3485	0.4331	1.7600e-003	0.1140	1.1800e-003	0.1151	0.0306	1.1000e-003	0.0317	0.0000	163.0720	163.0720	0.0127	0.0000	163.3899
MT/yr																

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
General Light Industry	135.15	25.59	13.19	298,008	298,008
Other Asphalt Surfaces	0.00	0.00	0.00	0	0
Total	135.15	25.59	13.19	298,008	298,008

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.538252	0.036119	0.174699	0.110250	0.018708	0.005523	0.008817	0.093315	0.001422	0.002225	0.008861	0.000710	0.001098
Other Asphalt Surfaces	0.538252	0.036119	0.174699	0.110250	0.018708	0.005523	0.008817	0.093315	0.001422	0.002225	0.008861	0.000710	0.001098

### 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Electricity Mitigated					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	62.7236	62.7236	2.5900e-003	5.4000e-004	62.9480
Electricity Unmitigated					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	62.7236	62.7236	2.5900e-003	5.4000e-004	62.9480
Natural Gas Mitigated	3.4000e-003	0.0309	0.0260	1.9000e-004	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	0.0000	33.6269	33.6269	6.4000e-004	6.2000e-004	33.8267

Natural Gas Unmitigated	3.4000e-003	0.0309	0.0260	1.9000e-004	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	0.0000	33.6269	33.6269	6.4000e-004	6.2000e-004	33.8267
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### 5.2 Energy by Land Use - Natural Gas

#### Unmitigated

Land Use	Natural Gas Use kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10 tons/yr	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
General Light	630744	3.4000e-003	0.0309	0.0260	1.9000e-004	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	0.0000	33.6269	33.6269	6.4000e-004	6.2000e-004	33.8267
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	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>3.4000e-003</b>	<b>0.0309</b>	<b>0.0260</b>	<b>1.9000e-004</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>0.0000</b>	<b>33.6269</b>	<b>33.6269</b>	<b>6.4000e-004</b>	<b>6.2000e-004</b>	<b>33.8267</b>

#### Mitigated

Land Use	Natural Gas Use kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10 tons/yr	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
General Light	630744	3.4000e-003	0.0309	0.0260	1.9000e-004	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	2.3500e-003	0.0000	33.6269	33.6269	6.4000e-004	6.2000e-004	33.8267
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	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>3.4000e-003</b>	<b>0.0309</b>	<b>0.0260</b>	<b>1.9000e-004</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>2.3500e-003</b>	<b>0.0000</b>	<b>33.6269</b>	<b>33.6269</b>	<b>6.4000e-004</b>	<b>6.2000e-004</b>	<b>33.8267</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
General Light Industry	196859	62.7236	2.5900e-003	5.4000e-004	62.9480
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>62.7236</b>	<b>2.5900e-003</b>	<b>5.4000e-004</b>	<b>62.9480</b>

**Mitigated**

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
General Light Industry	196859	62.7236	2.5900e-003	5.4000e-004	62.9480
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>62.7236</b>	<b>2.5900e-003</b>	<b>5.4000e-004</b>	<b>62.9480</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior





**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.48394 / 0	20.0254	0.1469	3.6100e-003	24.7727
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>20.0254</b>	<b>0.1469</b>	<b>3.6100e-003</b>	<b>24.7727</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.8799	0.2884	0.0000	12.0898
Unmitigated	4.8799	0.2884	0.0000	12.0898

**8.2 Waste by Land Use**

**Unmitigated**

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
General Light Industry	24.04	4.8799	0.2884	0.0000	12.0898
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.8799</b>	<b>0.2884</b>	<b>0.0000</b>	<b>12.0898</b>

**Mitigated**

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
General Light Industry	24.04	4.8799	0.2884	0.0000	12.0898
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.8799</b>	<b>0.2884</b>	<b>0.0000</b>	<b>12.0898</b>

**9.0 Operational Offroad**

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

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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