

# **Appendix I**

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**Comment Letter 012a Attachment**

# **ATTACHMENT 1**

**Village At Squaw Valley - 20 Percent of Total Construction  
Mountain Counties Air Basin, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse High Rise	223.00	Dwelling Unit	5.62	362,676.00	0
Condo/Townhouse High Rise	87.00	Dwelling Unit	1.20	145,100.00	0
Condo/Townhouse High Rise	167.00	Dwelling Unit	4.69	252,875.00	0
User Defined Retail	0.00	User Defined Unit	0.00	67,264.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	8
<b>Climate Zone</b>	14			<b>Operational Year</b>	2017
<b>Utility Company</b>	Sierra Pacific Resources				
<b>CO2 Intensity (lb/MW hr)</b>	1328.16	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Land Uses represent 20 percent of the Project. Building square footages and acreages derived from Appendix H.

Construction Phase - Construction Schedule taken from DEIR.

Grading - Acres of grading calculated by CalEEMod

Demolition - 91,522 sf x 20%

Trips and VMT - Maximum Daily Workers was assumed to be 136 workers per day.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	314.00
tblConstructionPhase	NumDays	300.00	314.00
tblConstructionPhase	NumDays	20.00	144.00
tblConstructionPhase	NumDays	30.00	144.00
tblConstructionPhase	NumDays	20.00	144.00
tblConstructionPhase	NumDays	10.00	144.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/2/2018	12/31/2016
tblConstructionPhase	PhaseEndDate	6/17/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	1/1/2017	1/1/2016
tblConstructionPhase	PhaseStartDate	1/1/2017	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblGrading	AcresOfGrading	360.00	75.00
tblLandUse	LandUseSquareFeet	223,000.00	362,676.00
tblLandUse	LandUseSquareFeet	87,000.00	145,100.00
tblLandUse	LandUseSquareFeet	167,000.00	252,875.00
tblLandUse	LandUseSquareFeet	0.00	67,264.00

tblLandUse	LotAcreage	3.48	5.62
tblLandUse	LotAcreage	1.36	1.20
tblLandUse	LotAcreage	2.61	4.69
tblLandUse	Population	638.00	0.00
tblLandUse	Population	249.00	0.00
tblLandUse	Population	478.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	365.00	136.00

## 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	tons/yr										MT/yr					
Area	94.4025	1.2599	114.1889	0.0434		15.5597	15.5597		15.5592	15.5592	1,478.1625	625.7052	2,103.8677	1.3699	0.1163	2,168.6790
Energy	0.0177	0.1512	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	1,503.6826	1,503.6826	0.0324	9.2100e-003	1,507.2178
Mobile	3.6663	10.5309	40.5829	0.0648	4.3325	0.1280	4.4604	1.1596	0.1176	1.2772	0.0000	5,042.0384	5,042.0384	0.2384	0.0000	5,047.0450
Waste						0.0000	0.0000		0.0000	0.0000	44.5403	0.0000	44.5403	2.6323	0.0000	99.8176
Water						0.0000	0.0000		0.0000	0.0000	9.8598	142.6230	152.4827	1.0158	0.0246	181.4271
<b>Total</b>	<b>98.0865</b>	<b>11.9419</b>	<b>154.8361</b>	<b>0.1091</b>	<b>4.3325</b>	<b>15.6999</b>	<b>20.0323</b>	<b>1.1596</b>	<b>15.6891</b>	<b>16.8486</b>	<b>1,532.5625</b>	<b>7,314.0492</b>	<b>8,846.6117</b>	<b>5.2888</b>	<b>0.1500</b>	<b>9,004.1865</b>

## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	94.4025	1.2599	114.1889	0.0434		15.5597	15.5597		15.5592	15.5592	1,478.1625	625.7052	2,103.8677	1.3699	0.1163	2,168.6790
Energy	0.0177	0.1512	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	1,503.6826	1,503.6826	0.0324	9.2100e-003	1,507.2178
Mobile	3.6663	10.5309	40.5829	0.0648	4.3325	0.1280	4.4604	1.1596	0.1176	1.2772	0.0000	5,042.0384	5,042.0384	0.2384	0.0000	5,047.0450
Waste						0.0000	0.0000		0.0000	0.0000	44.5403	0.0000	44.5403	2.6323	0.0000	99.8176
Water						0.0000	0.0000		0.0000	0.0000	9.8598	142.6230	152.4827	1.0156	0.0245	181.4114
<b>Total</b>	<b>98.0865</b>	<b>11.9419</b>	<b>154.8361</b>	<b>0.1091</b>	<b>4.3325</b>	<b>15.6999</b>	<b>20.0323</b>	<b>1.1596</b>	<b>15.6891</b>	<b>16.8486</b>	<b>1,532.5625</b>	<b>7,314.0492</b>	<b>8,846.6117</b>	<b>5.2886</b>	<b>0.1500</b>	<b>9,004.1708</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
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	0.03	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	Building Construction	Building Construction	1/1/2016	12/31/2016	6	314	
2	Architectural Coating	Architectural Coating	1/1/2016	12/31/2016	6	314	
3	Demolition	Demolition	5/1/2016	10/15/2016	6	144	
4	Site Preparation	Site Preparation	5/1/2016	10/15/2016	6	144	
5	Grading	Grading	5/1/2016	10/15/2016	6	144	
6	Paving	Paving	5/1/2016	10/15/2016	6	144	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 1,540,318; Residential Outdoor: 513,439; Non-Residential Indoor: 100,896; Non-Residential Outdoor: 33,632 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	83.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	136.00	62.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5348	4.4755	2.9055	4.2100e-003		0.3089	0.3089		0.2902	0.2902	0.0000	380.1811	380.1811	0.0943	0.0000	382.1613
<b>Total</b>	<b>0.5348</b>	<b>4.4755</b>	<b>2.9055</b>	<b>4.2100e-003</b>		<b>0.3089</b>	<b>0.3089</b>		<b>0.2902</b>	<b>0.2902</b>	<b>0.0000</b>	<b>380.1811</b>	<b>380.1811</b>	<b>0.0943</b>	<b>0.0000</b>	<b>382.1613</b>

### 3.2 Building Construction - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1735	0.9067	2.0169	2.1200e-003	0.0581	0.0151	0.0732	0.0166	0.0139	0.0305	0.0000	190.8044	190.8044	1.6500e-003	0.0000	0.0000	190.8391
Worker	0.1336	0.2085	1.9713	3.1200e-003	0.2714	2.3700e-003	0.2738	0.0720	2.1600e-003	0.0742	0.0000	231.5467	231.5467	0.0149	0.0000	0.0000	231.8604
<b>Total</b>	<b>0.3070</b>	<b>1.1152</b>	<b>3.9882</b>	<b>5.2400e-003</b>	<b>0.3296</b>	<b>0.0175</b>	<b>0.3470</b>	<b>0.0886</b>	<b>0.0160</b>	<b>0.1046</b>	<b>0.0000</b>	<b>422.3511</b>	<b>422.3511</b>	<b>0.0166</b>	<b>0.0000</b>	<b>0.0000</b>	<b>422.6995</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										MT/yr						
Off-Road	0.5348	4.4755	2.9055	4.2100e-003		0.3089	0.3089		0.2902	0.2902	0.0000	380.1807	380.1807	0.0943	0.0000	0.0000	382.1608
<b>Total</b>	<b>0.5348</b>	<b>4.4755</b>	<b>2.9055</b>	<b>4.2100e-003</b>		<b>0.3089</b>	<b>0.3089</b>		<b>0.2902</b>	<b>0.2902</b>	<b>0.0000</b>	<b>380.1807</b>	<b>380.1807</b>	<b>0.0943</b>	<b>0.0000</b>	<b>0.0000</b>	<b>382.1608</b>

### 3.2 Building Construction - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1735	0.9067	2.0169	2.1200e-003	0.0581	0.0151	0.0732	0.0166	0.0139	0.0305	0.0000	190.8044	190.8044	1.6500e-003	0.0000	190.8391
Worker	0.1336	0.2085	1.9713	3.1200e-003	0.2714	2.3700e-003	0.2738	0.0720	2.1600e-003	0.0742	0.0000	231.5467	231.5467	0.0149	0.0000	231.8604
<b>Total</b>	<b>0.3070</b>	<b>1.1152</b>	<b>3.9882</b>	<b>5.2400e-003</b>	<b>0.3296</b>	<b>0.0175</b>	<b>0.3470</b>	<b>0.0886</b>	<b>0.0160</b>	<b>0.1046</b>	<b>0.0000</b>	<b>422.3511</b>	<b>422.3511</b>	<b>0.0166</b>	<b>0.0000</b>	<b>422.6995</b>

### 3.3 Architectural Coating - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	12.6784					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0579	0.3724	0.2958	4.7000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	40.0861	40.0861	4.7300e-003	0.0000	40.1853
<b>Total</b>	<b>12.7362</b>	<b>0.3724</b>	<b>0.2958</b>	<b>4.7000e-004</b>		<b>0.0309</b>	<b>0.0309</b>		<b>0.0309</b>	<b>0.0309</b>	<b>0.0000</b>	<b>40.0861</b>	<b>40.0861</b>	<b>4.7300e-003</b>	<b>0.0000</b>	<b>40.1853</b>

### 3.3 Architectural Coating - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0717	0.1119	1.0581	1.6700e-003	0.1457	1.2700e-003	0.1470	0.0387	1.1600e-003	0.0398	0.0000	124.2861	124.2861	8.0200e-003	0.0000	124.4545
<b>Total</b>	<b>0.0717</b>	<b>0.1119</b>	<b>1.0581</b>	<b>1.6700e-003</b>	<b>0.1457</b>	<b>1.2700e-003</b>	<b>0.1470</b>	<b>0.0387</b>	<b>1.1600e-003</b>	<b>0.0398</b>	<b>0.0000</b>	<b>124.2861</b>	<b>124.2861</b>	<b>8.0200e-003</b>	<b>0.0000</b>	<b>124.4545</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										MT/yr					
Archit. Coating	12.6784					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0579	0.3724	0.2958	4.7000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	40.0860	40.0860	4.7300e-003	0.0000	40.1853
<b>Total</b>	<b>12.7362</b>	<b>0.3724</b>	<b>0.2958</b>	<b>4.7000e-004</b>		<b>0.0309</b>	<b>0.0309</b>		<b>0.0309</b>	<b>0.0309</b>	<b>0.0000</b>	<b>40.0860</b>	<b>40.0860</b>	<b>4.7300e-003</b>	<b>0.0000</b>	<b>40.1853</b>

### 3.3 Architectural Coating - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0717	0.1119	1.0581	1.6700e-003	0.1457	1.2700e-003	0.1470	0.0387	1.1600e-003	0.0398	0.0000	124.2861	124.2861	8.0200e-003	0.0000	124.4545
<b>Total</b>	<b>0.0717</b>	<b>0.1119</b>	<b>1.0581</b>	<b>1.6700e-003</b>	<b>0.1457</b>	<b>1.2700e-003</b>	<b>0.1470</b>	<b>0.0387</b>	<b>1.1600e-003</b>	<b>0.0398</b>	<b>0.0000</b>	<b>124.2861</b>	<b>124.2861</b>	<b>8.0200e-003</b>	<b>0.0000</b>	<b>124.4545</b>

### 3.4 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0100e-003	0.0000	9.0100e-003	1.3600e-003	0.0000	1.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3087	3.2872	2.5222	2.8700e-003		0.1650	0.1650		0.1538	0.1538	0.0000	267.1010	267.1010	0.0726	0.0000	268.6264
<b>Total</b>	<b>0.3087</b>	<b>3.2872</b>	<b>2.5222</b>	<b>2.8700e-003</b>	<b>9.0100e-003</b>	<b>0.1650</b>	<b>0.1740</b>	<b>1.3600e-003</b>	<b>0.1538</b>	<b>0.1552</b>	<b>0.0000</b>	<b>267.1010</b>	<b>267.1010</b>	<b>0.0726</b>	<b>0.0000</b>	<b>268.6264</b>

### 3.4 Demolition - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2800e-003	0.0117	0.0153	3.0000e-005	7.2000e-004	1.8000e-004	9.0000e-004	2.0000e-004	1.6000e-004	3.6000e-004	0.0000	2.8226	2.8226	2.0000e-005	0.0000	2.8230
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7600e-003	0.0105	0.0997	1.6000e-004	0.0137	1.2000e-004	0.0139	3.6400e-003	1.1000e-004	3.7500e-003	0.0000	11.7118	11.7118	7.6000e-004	0.0000	11.7277
<b>Total</b>	<b>8.0400e-003</b>	<b>0.0222</b>	<b>0.1151</b>	<b>1.9000e-004</b>	<b>0.0145</b>	<b>3.0000e-004</b>	<b>0.0148</b>	<b>3.8400e-003</b>	<b>2.7000e-004</b>	<b>4.1100e-003</b>	<b>0.0000</b>	<b>14.5344</b>	<b>14.5344</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>14.5507</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										MT/yr					
Fugitive Dust					9.0100e-003	0.0000	9.0100e-003	1.3600e-003	0.0000	1.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3087	3.2872	2.5222	2.8700e-003		0.1650	0.1650		0.1538	0.1538	0.0000	267.1007	267.1007	0.0726	0.0000	268.6261
<b>Total</b>	<b>0.3087</b>	<b>3.2872</b>	<b>2.5222</b>	<b>2.8700e-003</b>	<b>9.0100e-003</b>	<b>0.1650</b>	<b>0.1740</b>	<b>1.3600e-003</b>	<b>0.1538</b>	<b>0.1552</b>	<b>0.0000</b>	<b>267.1007</b>	<b>267.1007</b>	<b>0.0726</b>	<b>0.0000</b>	<b>268.6261</b>



### 3.4 Demolition - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2800e-003	0.0117	0.0153	3.0000e-005	7.2000e-004	1.8000e-004	9.0000e-004	2.0000e-004	1.6000e-004	3.6000e-004	0.0000	2.8226	2.8226	2.0000e-005	0.0000	2.8230
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7600e-003	0.0105	0.0997	1.6000e-004	0.0137	1.2000e-004	0.0139	3.6400e-003	1.1000e-004	3.7500e-003	0.0000	11.7118	11.7118	7.6000e-004	0.0000	11.7277
<b>Total</b>	<b>8.0400e-003</b>	<b>0.0222</b>	<b>0.1151</b>	<b>1.9000e-004</b>	<b>0.0145</b>	<b>3.0000e-004</b>	<b>0.0148</b>	<b>3.8400e-003</b>	<b>2.7000e-004</b>	<b>4.1100e-003</b>	<b>0.0000</b>	<b>14.5344</b>	<b>14.5344</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>14.5507</b>

### 3.5 Site Preparation - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3008	0.0000	1.3008	0.7150	0.0000	0.7150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3656	3.9335	2.9596	2.8100e-003		0.2116	0.2116		0.1947	0.1947	0.0000	265.5152	265.5152	0.0801	0.0000	267.1970
<b>Total</b>	<b>0.3656</b>	<b>3.9335</b>	<b>2.9596</b>	<b>2.8100e-003</b>	<b>1.3008</b>	<b>0.2116</b>	<b>1.5124</b>	<b>0.7150</b>	<b>0.1947</b>	<b>0.9097</b>	<b>0.0000</b>	<b>265.5152</b>	<b>265.5152</b>	<b>0.0801</b>	<b>0.0000</b>	<b>267.1970</b>

**3.5 Site Preparation - 2016**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1100e-003	0.0127	0.1197	1.9000e-004	0.0165	1.4000e-004	0.0166	4.3700e-003	1.3000e-004	4.5000e-003	0.0000	14.0542	14.0542	9.1000e-004	0.0000	14.0732
<b>Total</b>	<b>8.1100e-003</b>	<b>0.0127</b>	<b>0.1197</b>	<b>1.9000e-004</b>	<b>0.0165</b>	<b>1.4000e-004</b>	<b>0.0166</b>	<b>4.3700e-003</b>	<b>1.3000e-004</b>	<b>4.5000e-003</b>	<b>0.0000</b>	<b>14.0542</b>	<b>14.0542</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>14.0732</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										MT/yr					
Fugitive Dust					1.3008	0.0000	1.3008	0.7150	0.0000	0.7150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3656	3.9335	2.9596	2.8100e-003		0.2116	0.2116		0.1947	0.1947	0.0000	265.5149	265.5149	0.0801	0.0000	267.1967
<b>Total</b>	<b>0.3656</b>	<b>3.9335</b>	<b>2.9596</b>	<b>2.8100e-003</b>	<b>1.3008</b>	<b>0.2116</b>	<b>1.5124</b>	<b>0.7150</b>	<b>0.1947</b>	<b>0.9097</b>	<b>0.0000</b>	<b>265.5149</b>	<b>265.5149</b>	<b>0.0801</b>	<b>0.0000</b>	<b>267.1967</b>

**3.5 Site Preparation - 2016**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1100e-003	0.0127	0.1197	1.9000e-004	0.0165	1.4000e-004	0.0166	4.3700e-003	1.3000e-004	4.5000e-003	0.0000	14.0542	14.0542	9.1000e-004	0.0000	14.0732
<b>Total</b>	<b>8.1100e-003</b>	<b>0.0127</b>	<b>0.1197</b>	<b>1.9000e-004</b>	<b>0.0165</b>	<b>1.4000e-004</b>	<b>0.0166</b>	<b>4.3700e-003</b>	<b>1.3000e-004</b>	<b>4.5000e-003</b>	<b>0.0000</b>	<b>14.0542</b>	<b>14.0542</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>14.0732</b>

**3.6 Grading - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4734	0.0000	0.4734	0.2426	0.0000	0.2426	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4665	5.3866	3.5379	4.4400e-003		0.2581	0.2581		0.2374	0.2374	0.0000	419.0092	419.0092	0.1264	0.0000	421.6634
<b>Total</b>	<b>0.4665</b>	<b>5.3866</b>	<b>3.5379</b>	<b>4.4400e-003</b>	<b>0.4734</b>	<b>0.2581</b>	<b>0.7314</b>	<b>0.2426</b>	<b>0.2374</b>	<b>0.4801</b>	<b>0.0000</b>	<b>419.0092</b>	<b>419.0092</b>	<b>0.1264</b>	<b>0.0000</b>	<b>421.6634</b>

### 3.6 Grading - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	0.0141	0.1330	2.1000e-004	0.0183	1.6000e-004	0.0185	4.8600e-003	1.5000e-004	5.0000e-003	0.0000	15.6157	15.6157	1.0100e-003	0.0000	15.6369
<b>Total</b>	<b>9.0100e-003</b>	<b>0.0141</b>	<b>0.1330</b>	<b>2.1000e-004</b>	<b>0.0183</b>	<b>1.6000e-004</b>	<b>0.0185</b>	<b>4.8600e-003</b>	<b>1.5000e-004</b>	<b>5.0000e-003</b>	<b>0.0000</b>	<b>15.6157</b>	<b>15.6157</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>15.6369</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										MT/yr					
Fugitive Dust					0.4734	0.0000	0.4734	0.2426	0.0000	0.2426	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4665	5.3866	3.5379	4.4400e-003		0.2581	0.2581		0.2374	0.2374	0.0000	419.0087	419.0087	0.1264	0.0000	421.6629
<b>Total</b>	<b>0.4665</b>	<b>5.3866</b>	<b>3.5379</b>	<b>4.4400e-003</b>	<b>0.4734</b>	<b>0.2581</b>	<b>0.7314</b>	<b>0.2426</b>	<b>0.2374</b>	<b>0.4801</b>	<b>0.0000</b>	<b>419.0087</b>	<b>419.0087</b>	<b>0.1264</b>	<b>0.0000</b>	<b>421.6629</b>

**3.6 Grading - 2016**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	0.0141	0.1330	2.1000e-004	0.0183	1.6000e-004	0.0185	4.8600e-003	1.5000e-004	5.0000e-003	0.0000	15.6157	15.6157	1.0100e-003	0.0000	15.6369
<b>Total</b>	<b>9.0100e-003</b>	<b>0.0141</b>	<b>0.1330</b>	<b>2.1000e-004</b>	<b>0.0183</b>	<b>1.6000e-004</b>	<b>0.0185</b>	<b>4.8600e-003</b>	<b>1.5000e-004</b>	<b>5.0000e-003</b>	<b>0.0000</b>	<b>15.6157</b>	<b>15.6157</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>15.6369</b>

**3.7 Paving - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1505	1.6118	1.0669	1.6000e-003		0.0908	0.0908		0.0835	0.0835	0.0000	151.2995	151.2995	0.0456	0.0000	152.2579
Paving	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>0.1505</b>	<b>1.6118</b>	<b>1.0669</b>	<b>1.6000e-003</b>		<b>0.0908</b>	<b>0.0908</b>		<b>0.0835</b>	<b>0.0835</b>	<b>0.0000</b>	<b>151.2995</b>	<b>151.2995</b>	<b>0.0456</b>	<b>0.0000</b>	<b>152.2579</b>

### 3.7 Paving - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7600e-003	0.0105	0.0997	1.6000e-004	0.0137	1.2000e-004	0.0139	3.6400e-003	1.1000e-004	3.7500e-003	0.0000	11.7118	11.7118	7.6000e-004	0.0000	11.7277
<b>Total</b>	<b>6.7600e-003</b>	<b>0.0105</b>	<b>0.0997</b>	<b>1.6000e-004</b>	<b>0.0137</b>	<b>1.2000e-004</b>	<b>0.0139</b>	<b>3.6400e-003</b>	<b>1.1000e-004</b>	<b>3.7500e-003</b>	<b>0.0000</b>	<b>11.7118</b>	<b>11.7118</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>11.7277</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										MT/yr					
Off-Road	0.1505	1.6118	1.0669	1.6000e-003		0.0908	0.0908		0.0835	0.0835	0.0000	151.2993	151.2993	0.0456	0.0000	152.2577
Paving	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>0.1505</b>	<b>1.6118</b>	<b>1.0669</b>	<b>1.6000e-003</b>		<b>0.0908</b>	<b>0.0908</b>		<b>0.0835</b>	<b>0.0835</b>	<b>0.0000</b>	<b>151.2993</b>	<b>151.2993</b>	<b>0.0456</b>	<b>0.0000</b>	<b>152.2577</b>

### 3.7 Paving - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	0.0000
Worker	6.7600e-003	0.0105	0.0997	1.6000e-004	0.0137	1.2000e-004	0.0139	3.6400e-003	1.1000e-004	3.7500e-003	0.0000	11.7118	11.7118	7.6000e-004	0.0000	11.7277	
<b>Total</b>	<b>6.7600e-003</b>	<b>0.0105</b>	<b>0.0997</b>	<b>1.6000e-004</b>	<b>0.0137</b>	<b>1.2000e-004</b>	<b>0.0139</b>	<b>3.6400e-003</b>	<b>1.1000e-004</b>	<b>3.7500e-003</b>	<b>0.0000</b>	<b>11.7118</b>	<b>11.7118</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>11.7277</b>	

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.6663	10.5309	40.5829	0.0648	4.3325	0.1280	4.4604	1.1596	0.1176	1.2772	0.0000	5,042.0384	5,042.0384	0.2384	0.0000	5,047.0450
Unmitigated	3.6663	10.5309	40.5829	0.0648	4.3325	0.1280	4.4604	1.1596	0.1176	1.2772	0.0000	5,042.0384	5,042.0384	0.2384	0.0000	5,047.0450

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,469.57	1,596.68	1353.61	5,255,169	5,255,169
Condo/Townhouse High Rise	573.33	622.92	528.09	2,050,223	2,050,223
Condo/Townhouse High Rise	1,100.53	1,195.72	1013.69	3,935,485	3,935,485
User Defined Retail	0.00	0.00	0.00		
<b>Total</b>	<b>3,143.43</b>	<b>3,415.32</b>	<b>2,895.39</b>	<b>11,240,877</b>	<b>11,240,877</b>

**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
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
User Defined Retail	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.381852	0.086091	0.200079	0.163903	0.085749	0.010610	0.015453	0.038109	0.001550	0.000665	0.009389	0.000881	0.005669

**5.0 Energy Detail**

**4.4 Fleet Mix**

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,328.6341	1,328.6341	0.0290	6.0000e-003	1,331.1039
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,328.6341	1,328.6341	0.0290	6.0000e-003	1,331.1039
NaturalGas Mitigated	0.0177	0.1512	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	175.0486	175.0486	3.3600e-003	3.2100e-003	176.1139
NaturalGas Unmitigated	0.0177	0.1512	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	175.0486	175.0486	3.3600e-003	3.2100e-003	176.1139

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse High Rise	598291	3.2300e-003	0.0276	0.0117	1.8000e-004		2.2300e-003	2.2300e-003		2.2300e-003	2.2300e-003	0.0000	31.9271	31.9271	6.1000e-004	5.9000e-004	32.1214
User Defined Retail	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
Condo/Townhouse High Rise	1.14844e+006	6.1900e-003	0.0529	0.0225	3.4000e-004		4.2800e-003	4.2800e-003		4.2800e-003	4.2800e-003	0.0000	61.2853	61.2853	1.1700e-003	1.1200e-003	61.6583
Condo/Townhouse High Rise	1.53355e+006	8.2700e-003	0.0707	0.0301	4.5000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	81.8361	81.8361	1.5700e-003	1.5000e-003	82.3342
<b>Total</b>		<b>0.0177</b>	<b>0.1512</b>	<b>0.0643</b>	<b>9.7000e-004</b>		<b>0.0122</b>	<b>0.0122</b>		<b>0.0122</b>	<b>0.0122</b>	<b>0.0000</b>	<b>175.0486</b>	<b>175.0486</b>	<b>3.3500e-003</b>	<b>3.2100e-003</b>	<b>176.1139</b>

### 5.2 Energy by Land Use - NaturalGas

#### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Retail	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
Condo/Townhouse High Rise	1.14844e+006	6.1900e-003	0.0529	0.0225	3.4000e-004		4.2800e-003	4.2800e-003		4.2800e-003	4.2800e-003	0.0000	61.2853	61.2853	1.1700e-003	1.1200e-003	61.6583
Condo/Townhouse High Rise	1.53355e+006	8.2700e-003	0.0707	0.0301	4.5000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	81.8361	81.8361	1.5700e-003	1.5000e-003	82.3342
Condo/Townhouse High Rise	598291	3.2300e-003	0.0276	0.0117	1.8000e-004		2.2300e-003	2.2300e-003		2.2300e-003	2.2300e-003	0.0000	31.9271	31.9271	6.1000e-004	5.9000e-004	32.1214
<b>Total</b>		<b>0.0177</b>	<b>0.1512</b>	<b>0.0643</b>	<b>9.7000e-004</b>		<b>0.0122</b>	<b>0.0122</b>		<b>0.0122</b>	<b>0.0122</b>	<b>0.0000</b>	<b>175.0486</b>	<b>175.0486</b>	<b>3.3500e-003</b>	<b>3.2100e-003</b>	<b>176.1139</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	1.03104e+006	621.1434	0.0136	2.8100e-003	622.2981
Condo/Townhouse High Rise	402245	242.3295	5.2900e-003	1.0900e-003	242.7800
Condo/Townhouse High Rise	772125	465.1612	0.0102	2.1000e-003	466.0259
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,328.6341</b>	<b>0.0290</b>	<b>6.0000e-003</b>	<b>1,331.1039</b>

### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	1.03104e+006	621.1434	0.0136	2.8100e-003	622.2981
Condo/Townhouse High Rise	402245	242.3295	5.2900e-003	1.0900e-003	242.7800
Condo/Townhouse High Rise	772125	465.1612	0.0102	2.1000e-003	466.0259
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1,328.6341</b>	<b>0.0290</b>	<b>6.0000e-003</b>	<b>1,331.1039</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	94.4025	1.2599	114.1889	0.0434		15.5597	15.5597		15.5592	15.5592	1,478.1625	625.7052	2,103.8677	1.3699	0.1163	2,168.6790
Unmitigated	94.4025	1.2599	114.1889	0.0434		15.5597	15.5597		15.5592	15.5592	1,478.1625	625.7052	2,103.8677	1.3699	0.1163	2,168.6790

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	1.2678					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.2334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	89.7898	1.2182	110.6114	0.0432		15.5402	15.5402		15.5398	15.5398	1,478.1625	619.9198	2,098.0823	1.3641	0.1163	2,162.7716	
Landscaping	0.1114	0.0417	3.5775	1.9000e-004		0.0194	0.0194		0.0194	0.0194	0.0000	5.7854	5.7854	5.8100e-003	0.0000	5.9074	
<b>Total</b>	<b>94.4025</b>	<b>1.2599</b>	<b>114.1889</b>	<b>0.0434</b>		<b>15.5597</b>	<b>15.5597</b>		<b>15.5592</b>	<b>15.5592</b>	<b>1,478.1625</b>	<b>625.7052</b>	<b>2,103.8677</b>	<b>1.3699</b>	<b>0.1163</b>	<b>2,168.6790</b>	

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.2678					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.2334					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	89.7898	1.2182	110.6114	0.0432		15.5402	15.5402		15.5398	15.5398	1,478.1625	619.9198	2,098.0823	1.3641	0.1163	2,162.7716
Landscaping	0.1114	0.0417	3.5775	1.9000e-004		0.0194	0.0194		0.0194	0.0194	0.0000	5.7854	5.7854	5.8100e-003	0.0000	5.9074
<b>Total</b>	<b>94.4025</b>	<b>1.2599</b>	<b>114.1889</b>	<b>0.0434</b>		<b>15.5597</b>	<b>15.5597</b>		<b>15.5592</b>	<b>15.5592</b>	<b>1,478.1625</b>	<b>625.7052</b>	<b>2,103.8677</b>	<b>1.3699</b>	<b>0.1163</b>	<b>2,168.6790</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	152.4827	1.0156	0.0245	181.4114
Unmitigated	152.4827	1.0158	0.0246	181.4271

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	31.0785 / 19.5929	152.4827	1.0158	0.0246	181.4271
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>152.4827</b>	<b>1.0158</b>	<b>0.0246</b>	<b>181.4271</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	31.0785 / 19.5929	152.4827	1.0156	0.0245	181.4114
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>152.4827</b>	<b>1.0156</b>	<b>0.0245</b>	<b>181.4114</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	44.5403	2.6323	0.0000	99.8176
Unmitigated	44.5403	2.6323	0.0000	99.8176

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	219.42	44.5403	2.6323	0.0000	99.8176
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>44.5403</b>	<b>2.6323</b>	<b>0.0000</b>	<b>99.8176</b>



## 8.2 Waste by Land Use

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	219.42	44.5403	2.6323	0.0000	99.8176
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>44.5403</b>	<b>2.6323</b>	<b>0.0000</b>	<b>99.8176</b>

## 9.0 Operational Offroad

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

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**Village At Squaw Valley - 20 Percent of Total Construction  
Mountain Counties Air Basin, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse High Rise	223.00	Dwelling Unit	5.62	362,676.00	0
Condo/Townhouse High Rise	87.00	Dwelling Unit	1.20	145,100.00	0
Condo/Townhouse High Rise	167.00	Dwelling Unit	4.69	252,875.00	0
User Defined Retail	0.00	User Defined Unit	0.00	67,264.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	8
<b>Climate Zone</b>	14			<b>Operational Year</b>	2017
<b>Utility Company</b>	Sierra Pacific Resources				
<b>CO2 Intensity (lb/MW hr)</b>	1328.16	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Land Uses represent 20 percent of the Project. Building square footages and acreages derived from Appendix H.

Construction Phase - Construction Schedule taken from DEIR.

Grading - Acres of grading calculated by CalEEMod

Demolition - 91,522 sf x 20%

Trips and VMT - Maximum Daily Workers was assumed to be 136 workers per day.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	314.00
tblConstructionPhase	NumDays	300.00	314.00
tblConstructionPhase	NumDays	20.00	144.00
tblConstructionPhase	NumDays	30.00	144.00
tblConstructionPhase	NumDays	20.00	144.00
tblConstructionPhase	NumDays	10.00	144.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/2/2018	12/31/2016
tblConstructionPhase	PhaseEndDate	6/17/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	1/1/2017	1/1/2016
tblConstructionPhase	PhaseStartDate	1/1/2017	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblGrading	AcresOfGrading	360.00	75.00
tblLandUse	LandUseSquareFeet	223,000.00	362,676.00
tblLandUse	LandUseSquareFeet	87,000.00	145,100.00
tblLandUse	LandUseSquareFeet	167,000.00	252,875.00
tblLandUse	LandUseSquareFeet	0.00	67,264.00

tblLandUse	LotAcreage	3.48	5.62
tblLandUse	LotAcreage	1.36	1.20
tblLandUse	LotAcreage	2.61	4.69
tblLandUse	Population	638.00	0.00
tblLandUse	Population	249.00	0.00
tblLandUse	Population	478.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	365.00	136.00

## 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	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555
Energy	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387
Mobile	22.5662	57.7398	230.5602	0.4090	25.9570	0.7627	26.7197	6.9445	0.7010	7.6456		35,001.8605	35,001.8605	1.5685		35,034.8000
<b>Total</b>	<b>2,238.5603</b>	<b>88.7438</b>	<b>2,968.5011</b>	<b>1.4701</b>	<b>25.9570</b>	<b>380.0755</b>	<b>406.0325</b>	<b>6.9445</b>	<b>380.0027</b>	<b>386.9472</b>	<b>39,741.3467</b>	<b>52,796.9653</b>	<b>92,538.3120</b>	<b>38.3346</b>	<b>3.1453</b>	<b>94,318.3942</b>

**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	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555
Energy	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387
Mobile	22.5662	57.7398	230.5602	0.4090	25.9570	0.7627	26.7197	6.9445	0.7010	7.6456		35,001.8605	35,001.8605	1.5685		35,034.8000
<b>Total</b>	<b>2,238.5603</b>	<b>88.7438</b>	<b>2,968.5011</b>	<b>1.4701</b>	<b>25.9570</b>	<b>380.0755</b>	<b>406.0325</b>	<b>6.9445</b>	<b>380.0027</b>	<b>386.9472</b>	<b>39,741.3467</b>	<b>52,796.9653</b>	<b>92,538.3120</b>	<b>38.3346</b>	<b>3.1453</b>	<b>94,318.3942</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
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	Building Construction	Building Construction	1/1/2016	12/31/2016	6	314	
2	Architectural Coating	Architectural Coating	1/1/2016	12/31/2016	6	314	
3	Demolition	Demolition	5/1/2016	10/15/2016	6	144	
4	Site Preparation	Site Preparation	5/1/2016	10/15/2016	6	144	
5	Grading	Grading	5/1/2016	10/15/2016	6	144	
6	Paving	Paving	5/1/2016	10/15/2016	6	144	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 1,540,318; Residential Outdoor: 513,439; Non-Residential Indoor: 100,896; Non-Residential Outdoor: 33,632 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**



Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	83.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	136.00	62.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Building Construction - 2016

#### 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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>		<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>

### 3.2 Building Construction - 2016

#### 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	0.9065	5.5233	8.8855	0.0135	0.3717	0.0955	0.4673	0.1060	0.0878	0.1938		1,344.3788	1,344.3788	0.0115			1,344.6193
Worker	0.9276	1.1302	13.3748	0.0215	1.7371	0.0151	1.7522	0.4607	0.0138	0.4744		1,762.6870	1,762.6870	0.1049			1,764.8899
<b>Total</b>	<b>1.8341</b>	<b>6.6535</b>	<b>22.2604</b>	<b>0.0350</b>	<b>2.1089</b>	<b>0.1106</b>	<b>2.2195</b>	<b>0.5667</b>	<b>0.1015</b>	<b>0.6682</b>		<b>3,107.0658</b>	<b>3,107.0658</b>	<b>0.1164</b>			<b>3,109.5092</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	lb/day										lb/day						
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620			2,683.1890
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>	<b>0.0000</b>	<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>			<b>2,683.1890</b>

### 3.2 Building Construction - 2016

#### 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	0.9065	5.5233	8.8855	0.0135	0.3717	0.0955	0.4673	0.1060	0.0878	0.1938		1,344.3788	1,344.3788	0.0115			1,344.6193
Worker	0.9276	1.1302	13.3748	0.0215	1.7371	0.0151	1.7522	0.4607	0.0138	0.4744		1,762.6870	1,762.6870	0.1049			1,764.8899
<b>Total</b>	<b>1.8341</b>	<b>6.6535</b>	<b>22.2604</b>	<b>0.0350</b>	<b>2.1089</b>	<b>0.1106</b>	<b>2.2195</b>	<b>0.5667</b>	<b>0.1015</b>	<b>0.6682</b>		<b>3,107.0658</b>	<b>3,107.0658</b>	<b>0.1164</b>			<b>3,109.5092</b>

### 3.3 Architectural Coating - 2016

#### 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	80.7540					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332			282.1449
<b>Total</b>	<b>81.1225</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>			<b>282.1449</b>

### 3.3 Architectural Coating - 2016

#### 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	0.4979	0.6066	7.1791	0.0116	0.9324	8.1100e-003	0.9405	0.2473	7.3900e-003	0.2547		946.1482	946.1482	0.0563		947.3306
<b>Total</b>	<b>0.4979</b>	<b>0.6066</b>	<b>7.1791</b>	<b>0.0116</b>	<b>0.9324</b>	<b>8.1100e-003</b>	<b>0.9405</b>	<b>0.2473</b>	<b>7.3900e-003</b>	<b>0.2547</b>		<b>946.1482</b>	<b>946.1482</b>	<b>0.0563</b>		<b>947.3306</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	lb/day										lb/day					
Archit. Coating	80.7540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
<b>Total</b>	<b>81.1225</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>		<b>282.1449</b>

### 3.3 Architectural Coating - 2016

#### 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	0.4979	0.6066	7.1791	0.0116	0.9324	8.1100e-003	0.9405	0.2473	7.3900e-003	0.2547		946.1482	946.1482	0.0563		947.3306
<b>Total</b>	<b>0.4979</b>	<b>0.6066</b>	<b>7.1791</b>	<b>0.0116</b>	<b>0.9324</b>	<b>8.1100e-003</b>	<b>0.9405</b>	<b>0.2473</b>	<b>7.3900e-003</b>	<b>0.2547</b>		<b>946.1482</b>	<b>946.1482</b>	<b>0.0563</b>		<b>947.3306</b>

### 3.4 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1251	0.0000	0.1251	0.0190	0.0000	0.0190			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
<b>Total</b>	<b>4.2876</b>	<b>45.6559</b>	<b>35.0303</b>	<b>0.0399</b>	<b>0.1251</b>	<b>2.2921</b>	<b>2.4173</b>	<b>0.0190</b>	<b>2.1365</b>	<b>2.1555</b>		<b>4,089.2841</b>	<b>4,089.2841</b>	<b>1.1121</b>		<b>4,112.6374</b>

### 3.4 Demolition - 2016

#### 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	0.0150	0.1547	0.1556	4.3000e-004	0.0100	2.4400e-003	0.0125	2.7500e-003	2.2500e-003	4.9900e-003		43.2562	43.2562	3.1000e-004		43.2628
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	0.1023	0.1247	1.4752	2.3700e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		194.4140	194.4140	0.0116		194.6570
<b>Total</b>	<b>0.1173</b>	<b>0.2794</b>	<b>1.6308</b>	<b>2.8000e-003</b>	<b>0.2016</b>	<b>4.1100e-003</b>	<b>0.2057</b>	<b>0.0536</b>	<b>3.7700e-003</b>	<b>0.0573</b>		<b>237.6702</b>	<b>237.6702</b>	<b>0.0119</b>		<b>237.9198</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	lb/day										lb/day					
Fugitive Dust					0.1251	0.0000	0.1251	0.0190	0.0000	0.0190			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4
<b>Total</b>	<b>4.2876</b>	<b>45.6559</b>	<b>35.0303</b>	<b>0.0399</b>	<b>0.1251</b>	<b>2.2921</b>	<b>2.4173</b>	<b>0.0190</b>	<b>2.1365</b>	<b>2.1555</b>	<b>0.0000</b>	<b>4,089.284 1</b>	<b>4,089.284 1</b>	<b>1.1121</b>		<b>4,112.637 4</b>

### 3.4 Demolition - 2016

#### 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	0.0150	0.1547	0.1556	4.3000e-004	0.0100	2.4400e-003	0.0125	2.7500e-003	2.2500e-003	4.9900e-003		43.2562	43.2562	3.1000e-004		43.2628
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	0.1023	0.1247	1.4752	2.3700e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		194.4140	194.4140	0.0116		194.6570
<b>Total</b>	<b>0.1173</b>	<b>0.2794</b>	<b>1.6308</b>	<b>2.8000e-003</b>	<b>0.2016</b>	<b>4.1100e-003</b>	<b>0.2057</b>	<b>0.0536</b>	<b>3.7700e-003</b>	<b>0.0573</b>		<b>237.6702</b>	<b>237.6702</b>	<b>0.0119</b>		<b>237.9198</b>

### 3.5 Site Preparation - 2016

#### 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	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
<b>Total</b>	<b>5.0771</b>	<b>54.6323</b>	<b>41.1053</b>	<b>0.0391</b>	<b>18.0663</b>	<b>2.9387</b>	<b>21.0049</b>	<b>9.9307</b>	<b>2.7036</b>	<b>12.6343</b>		<b>4,065.0053</b>	<b>4,065.0053</b>	<b>1.2262</b>		<b>4,090.7544</b>

### 3.5 Site Preparation - 2016

#### 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	0.1228	0.1496	1.7702	2.8500e-003	0.2299	2.0000e-003	0.2319	0.0610	1.8200e-003	0.0628		233.2968	233.2968	0.0139		233.5884
<b>Total</b>	<b>0.1228</b>	<b>0.1496</b>	<b>1.7702</b>	<b>2.8500e-003</b>	<b>0.2299</b>	<b>2.0000e-003</b>	<b>0.2319</b>	<b>0.0610</b>	<b>1.8200e-003</b>	<b>0.0628</b>		<b>233.2968</b>	<b>233.2968</b>	<b>0.0139</b>		<b>233.5884</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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
<b>Total</b>	<b>5.0771</b>	<b>54.6323</b>	<b>41.1053</b>	<b>0.0391</b>	<b>18.0663</b>	<b>2.9387</b>	<b>21.0049</b>	<b>9.9307</b>	<b>2.7036</b>	<b>12.6343</b>	<b>0.0000</b>	<b>4,065.0053</b>	<b>4,065.0053</b>	<b>1.2262</b>		<b>4,090.7544</b>



### 3.5 Site Preparation - 2016

#### 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	0.1228	0.1496	1.7702	2.8500e-003	0.2299	2.0000e-003	0.2319	0.0610	1.8200e-003	0.0628		233.2968	233.2968	0.0139		233.5884
<b>Total</b>	<b>0.1228</b>	<b>0.1496</b>	<b>1.7702</b>	<b>2.8500e-003</b>	<b>0.2299</b>	<b>2.0000e-003</b>	<b>0.2319</b>	<b>0.0610</b>	<b>1.8200e-003</b>	<b>0.0628</b>		<b>233.2968</b>	<b>233.2968</b>	<b>0.0139</b>		<b>233.5884</b>

### 3.6 Grading - 2016

#### 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					6.5744	0.0000	6.5744	3.3699	0.0000	3.3699			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
<b>Total</b>	<b>6.4795</b>	<b>74.8137</b>	<b>49.1374</b>	<b>0.0617</b>	<b>6.5744</b>	<b>3.5842</b>	<b>10.1587</b>	<b>3.3699</b>	<b>3.2975</b>	<b>6.6674</b>		<b>6,414.9807</b>	<b>6,414.9807</b>	<b>1.9350</b>		<b>6,455.6154</b>

**3.6 Grading - 2016**

**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	0.1364	0.1662	1.9669	3.1700e-003	0.2555	2.2200e-003	0.2577	0.0678	2.0200e-003	0.0698		259.2187	259.2187	0.0154		259.5426
<b>Total</b>	<b>0.1364</b>	<b>0.1662</b>	<b>1.9669</b>	<b>3.1700e-003</b>	<b>0.2555</b>	<b>2.2200e-003</b>	<b>0.2577</b>	<b>0.0678</b>	<b>2.0200e-003</b>	<b>0.0698</b>		<b>259.2187</b>	<b>259.2187</b>	<b>0.0154</b>		<b>259.5426</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	lb/day										lb/day					
Fugitive Dust					6.5744	0.0000	6.5744	3.3699	0.0000	3.3699			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
<b>Total</b>	<b>6.4795</b>	<b>74.8137</b>	<b>49.1374</b>	<b>0.0617</b>	<b>6.5744</b>	<b>3.5842</b>	<b>10.1587</b>	<b>3.3699</b>	<b>3.2975</b>	<b>6.6674</b>	<b>0.0000</b>	<b>6,414.9807</b>	<b>6,414.9807</b>	<b>1.9350</b>		<b>6,455.6154</b>

**3.6 Grading - 2016**

**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	0.1364	0.1662	1.9669	3.1700e-003	0.2555	2.2200e-003	0.2577	0.0678	2.0200e-003	0.0698		259.2187	259.2187	0.0154		259.5426
<b>Total</b>	<b>0.1364</b>	<b>0.1662</b>	<b>1.9669</b>	<b>3.1700e-003</b>	<b>0.2555</b>	<b>2.2200e-003</b>	<b>0.2577</b>	<b>0.0678</b>	<b>2.0200e-003</b>	<b>0.0698</b>		<b>259.2187</b>	<b>259.2187</b>	<b>0.0154</b>		<b>259.5426</b>

**3.7 Paving - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>		<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

**3.7 Paving - 2016**

**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	0.1023	0.1247	1.4752	2.3700e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		194.4140	194.4140	0.0116		194.6570
<b>Total</b>	<b>0.1023</b>	<b>0.1247</b>	<b>1.4752</b>	<b>2.3700e-003</b>	<b>0.1916</b>	<b>1.6700e-003</b>	<b>0.1933</b>	<b>0.0508</b>	<b>1.5200e-003</b>	<b>0.0523</b>		<b>194.4140</b>	<b>194.4140</b>	<b>0.0116</b>		<b>194.6570</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	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>	<b>0.0000</b>	<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

### 3.7 Paving - 2016

#### 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	0.1023	0.1247	1.4752	2.3700e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		194.4140	194.4140	0.0116			194.6570
<b>Total</b>	<b>0.1023</b>	<b>0.1247</b>	<b>1.4752</b>	<b>2.3700e-003</b>	<b>0.1916</b>	<b>1.6700e-003</b>	<b>0.1933</b>	<b>0.0508</b>	<b>1.5200e-003</b>	<b>0.0523</b>		<b>194.4140</b>	<b>194.4140</b>	<b>0.0116</b>			<b>194.6570</b>

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	22.5662	57.7398	230.5602	0.4090	25.9570	0.7627	26.7197	6.9445	0.7010	7.6456		35,001.8605	35,001.8605	1.5685			35,034.8000
Unmitigated	22.5662	57.7398	230.5602	0.4090	25.9570	0.7627	26.7197	6.9445	0.7010	7.6456		35,001.8605	35,001.8605	1.5685			35,034.8000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,469.57	1,596.68	1353.61	5,255,169	5,255,169
Condo/Townhouse High Rise	573.33	622.92	528.09	2,050,223	2,050,223
Condo/Townhouse High Rise	1,100.53	1,195.72	1013.69	3,935,485	3,935,485
User Defined Retail	0.00	0.00	0.00		
<b>Total</b>	<b>3,143.43</b>	<b>3,415.32</b>	<b>2,895.39</b>	<b>11,240,877</b>	<b>11,240,877</b>

**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
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
User Defined Retail	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.381852	0.086091	0.200079	0.163903	0.085749	0.010610	0.015453	0.038109	0.001550	0.000665	0.009389	0.000881	0.005669

**5.0 Energy Detail**

**4.4 Fleet Mix**

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	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387
NaturalGas Unmitigated	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387

### 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					
Condo/Townhouse High Rise	3146.42	0.0339	0.2900	0.1234	1.8500e-003		0.0234	0.0234		0.0234	0.0234		370.1673	370.1673	7.0900e-003	6.7900e-003	372.4201
Condo/Townhouse High Rise	4201.51	0.0453	0.3872	0.1648	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2952	494.2952	9.4700e-003	9.0600e-003	497.3034
User Defined Retail	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
Condo/Townhouse High Rise	1639.15	0.0177	0.1511	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122		192.8416	192.8416	3.7000e-003	3.5400e-003	194.0152
<b>Total</b>		<b>0.0969</b>	<b>0.8282</b>	<b>0.3524</b>	<b>5.2800e-003</b>		<b>0.0670</b>	<b>0.0670</b>		<b>0.0670</b>	<b>0.0670</b>		<b>1,057.3041</b>	<b>1,057.3041</b>	<b>0.0203</b>	<b>0.0194</b>	<b>1,063.7387</b>

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Retail	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
Condo/Townhouse High Rise	1.63915	0.0177	0.1511	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122		192.8416	192.8416	3.7000e-003	3.5400e-003	194.0152
Condo/Townhouse High Rise	3.14642	0.0339	0.2900	0.1234	1.8500e-003		0.0234	0.0234		0.0234	0.0234		370.1673	370.1673	7.0900e-003	6.7900e-003	372.4201
Condo/Townhouse High Rise	4.20151	0.0453	0.3872	0.1648	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2952	494.2952	9.4700e-003	9.0600e-003	497.3034
<b>Total</b>		<b>0.0969</b>	<b>0.8282</b>	<b>0.3524</b>	<b>5.2800e-003</b>		<b>0.0670</b>	<b>0.0670</b>		<b>0.0670</b>	<b>0.0670</b>		<b>1,057.3041</b>	<b>1,057.3041</b>	<b>0.0203</b>	<b>0.0194</b>	<b>1,063.7387</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555
Unmitigated	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555



### 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	6.9471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	17.7174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2,189.9952	29.7124	2,697.8389	1.0538		379.0300	379.0300		379.0189	379.0189	39,741.3467	16,666.9412	56,408.2879	36.6747	3.1260	58,147.5025
Landscaping	1.2376	0.4633	39.7495	2.0800e-003		0.2158	0.2158		0.2158	0.2158		70.8595	70.8595	0.0711		72.3530
<b>Total</b>	<b>2,215.8973</b>	<b>30.1757</b>	<b>2,737.5884</b>	<b>1.0559</b>		<b>379.2458</b>	<b>379.2458</b>		<b>379.2347</b>	<b>379.2347</b>	<b>39,741.3467</b>	<b>16,737.8006</b>	<b>56,479.1473</b>	<b>36.7458</b>	<b>3.1260</b>	<b>58,219.8555</b>

**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	6.9471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	17.7174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2,189.9952	29.7124	2,697.8389	1.0538		379.0300	379.0300		379.0189	379.0189	39,741.3467	16,666.9412	56,408.2879	36.6747	3.1260	58,147.5025
Landscaping	1.2376	0.4633	39.7495	2.0800e-003		0.2158	0.2158		0.2158	0.2158		70.8595	70.8595	0.0711		72.3530
<b>Total</b>	<b>2,215.8973</b>	<b>30.1757</b>	<b>2,737.5884</b>	<b>1.0559</b>		<b>379.2458</b>	<b>379.2458</b>		<b>379.2347</b>	<b>379.2347</b>	<b>39,741.3467</b>	<b>16,737.8006</b>	<b>56,479.1473</b>	<b>36.7458</b>	<b>3.1260</b>	<b>58,219.8555</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**Village At Squaw Valley - 20 Percent of Total Construction  
Mountain Counties Air Basin, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse High Rise	223.00	Dwelling Unit	5.62	362,676.00	0
Condo/Townhouse High Rise	87.00	Dwelling Unit	1.20	145,100.00	0
Condo/Townhouse High Rise	167.00	Dwelling Unit	4.69	252,875.00	0
User Defined Retail	0.00	User Defined Unit	0.00	67,264.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	8
<b>Climate Zone</b>	14			<b>Operational Year</b>	2017
<b>Utility Company</b>	Sierra Pacific Resources				
<b>CO2 Intensity (lb/MW hr)</b>	1328.16	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Land Uses represent 20 percent of the Project. Building square footages and acreages derived from Appendix H.

Construction Phase - Construction Schedule taken from DEIR.

Grading - Acres of grading calculated by CalEEMod

Demolition - 91,522 sf x 20%

Trips and VMT - Maximum Daily Workers was assumed to be 136 workers per day.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	314.00
tblConstructionPhase	NumDays	300.00	314.00
tblConstructionPhase	NumDays	20.00	144.00
tblConstructionPhase	NumDays	30.00	144.00
tblConstructionPhase	NumDays	20.00	144.00
tblConstructionPhase	NumDays	10.00	144.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/2/2018	12/31/2016
tblConstructionPhase	PhaseEndDate	6/17/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseEndDate	4/1/2017	10/15/2016
tblConstructionPhase	PhaseStartDate	1/1/2017	1/1/2016
tblConstructionPhase	PhaseStartDate	1/1/2017	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblConstructionPhase	PhaseStartDate	10/16/2016	5/1/2016
tblGrading	AcresOfGrading	360.00	75.00
tblLandUse	LandUseSquareFeet	223,000.00	362,676.00
tblLandUse	LandUseSquareFeet	87,000.00	145,100.00
tblLandUse	LandUseSquareFeet	167,000.00	252,875.00
tblLandUse	LandUseSquareFeet	0.00	67,264.00

tblLandUse	LotAcreage	3.48	5.62
tblLandUse	LotAcreage	1.36	1.20
tblLandUse	LotAcreage	2.61	4.69
tblLandUse	Population	638.00	0.00
tblLandUse	Population	249.00	0.00
tblLandUse	Population	478.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	365.00	136.00

## 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	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555
Energy	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387
Mobile	23.4089	65.1638	262.8127	0.3814	25.9570	0.7661	26.7231	6.9445	0.7042	7.6487		32,724.6175	32,724.6175	1.5697		32,757.5817
<b>Total</b>	<b>2,239.4031</b>	<b>96.1678</b>	<b>3,000.7535</b>	<b>1.4426</b>	<b>25.9570</b>	<b>380.0789</b>	<b>406.0359</b>	<b>6.9445</b>	<b>380.0059</b>	<b>386.9504</b>	<b>39,741.3467</b>	<b>50,519.7223</b>	<b>90,261.0689</b>	<b>38.3358</b>	<b>3.1453</b>	<b>92,041.1759</b>

**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	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555
Energy	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387
Mobile	23.4089	65.1638	262.8127	0.3814	25.9570	0.7661	26.7231	6.9445	0.7042	7.6487		32,724.6175	32,724.6175	1.5697		32,757.5817
<b>Total</b>	<b>2,239.4031</b>	<b>96.1678</b>	<b>3,000.7535</b>	<b>1.4426</b>	<b>25.9570</b>	<b>380.0789</b>	<b>406.0359</b>	<b>6.9445</b>	<b>380.0059</b>	<b>386.9504</b>	<b>39,741.3467</b>	<b>50,519.7223</b>	<b>90,261.0689</b>	<b>38.3358</b>	<b>3.1453</b>	<b>92,041.1759</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
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	Building Construction	Building Construction	1/1/2016	12/31/2016	6	314	
2	Architectural Coating	Architectural Coating	1/1/2016	12/31/2016	6	314	
3	Demolition	Demolition	5/1/2016	10/15/2016	6	144	
4	Site Preparation	Site Preparation	5/1/2016	10/15/2016	6	144	
5	Grading	Grading	5/1/2016	10/15/2016	6	144	
6	Paving	Paving	5/1/2016	10/15/2016	6	144	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 1,540,318; Residential Outdoor: 513,439; Non-Residential Indoor: 100,896; Non-Residential Outdoor: 33,632 (Architectural Coating – sqft)

#### OffRoad Equipment



Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	83.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	136.00	62.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Building Construction - 2016

#### 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	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>		<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>		<b>2,683.1890</b>

### 3.2 Building Construction - 2016

#### 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	1.2911	5.8347	15.9789	0.0135	0.3717	0.0972	0.4689	0.1060	0.0893	0.1953		1,333.1315	1,333.1315	0.0118			1,333.3790
Worker	0.9017	1.4426	12.9249	0.0194	1.7371	0.0151	1.7522	0.4607	0.0138	0.4744		1,592.3987	1,592.3987	0.1049			1,594.6015
<b>Total</b>	<b>2.1929</b>	<b>7.2773</b>	<b>28.9038</b>	<b>0.0329</b>	<b>2.1089</b>	<b>0.1123</b>	<b>2.2211</b>	<b>0.5667</b>	<b>0.1030</b>	<b>0.6697</b>		<b>2,925.5302</b>	<b>2,925.5302</b>	<b>0.1167</b>			<b>2,927.9805</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	lb/day										lb/day						
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620			2,683.1890
<b>Total</b>	<b>3.4062</b>	<b>28.5063</b>	<b>18.5066</b>	<b>0.0268</b>		<b>1.9674</b>	<b>1.9674</b>		<b>1.8485</b>	<b>1.8485</b>	<b>0.0000</b>	<b>2,669.2864</b>	<b>2,669.2864</b>	<b>0.6620</b>			<b>2,683.1890</b>

### 3.2 Building Construction - 2016

#### 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	1.2911	5.8347	15.9789	0.0135	0.3717	0.0972	0.4689	0.1060	0.0893	0.1953		1,333.1315	1,333.1315	0.0118			1,333.3790
Worker	0.9017	1.4426	12.9249	0.0194	1.7371	0.0151	1.7522	0.4607	0.0138	0.4744		1,592.3987	1,592.3987	0.1049			1,594.6015
<b>Total</b>	<b>2.1929</b>	<b>7.2773</b>	<b>28.9038</b>	<b>0.0329</b>	<b>2.1089</b>	<b>0.1123</b>	<b>2.2211</b>	<b>0.5667</b>	<b>0.1030</b>	<b>0.6697</b>		<b>2,925.5302</b>	<b>2,925.5302</b>	<b>0.1167</b>			<b>2,927.9805</b>

### 3.3 Architectural Coating - 2016

#### 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	80.7540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332			282.1449
<b>Total</b>	<b>81.1225</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>			<b>282.1449</b>

### 3.3 Architectural Coating - 2016

#### 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	0.4840	0.7743	6.9376	0.0104	0.9324	8.1100e-003	0.9405	0.2473	7.3900e-003	0.2547		854.7434	854.7434	0.0563		855.9258
<b>Total</b>	<b>0.4840</b>	<b>0.7743</b>	<b>6.9376</b>	<b>0.0104</b>	<b>0.9324</b>	<b>8.1100e-003</b>	<b>0.9405</b>	<b>0.2473</b>	<b>7.3900e-003</b>	<b>0.2547</b>		<b>854.7434</b>	<b>854.7434</b>	<b>0.0563</b>		<b>855.9258</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	lb/day										lb/day					
Archit. Coating	80.7540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
<b>Total</b>	<b>81.1225</b>	<b>2.3722</b>	<b>1.8839</b>	<b>2.9700e-003</b>		<b>0.1966</b>	<b>0.1966</b>		<b>0.1966</b>	<b>0.1966</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0332</b>		<b>282.1449</b>

### 3.3 Architectural Coating - 2016

#### 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	0.4840	0.7743	6.9376	0.0104	0.9324	8.1100e-003	0.9405	0.2473	7.3900e-003	0.2547		854.7434	854.7434	0.0563		855.9258
<b>Total</b>	<b>0.4840</b>	<b>0.7743</b>	<b>6.9376</b>	<b>0.0104</b>	<b>0.9324</b>	<b>8.1100e-003</b>	<b>0.9405</b>	<b>0.2473</b>	<b>7.3900e-003</b>	<b>0.2547</b>		<b>854.7434</b>	<b>854.7434</b>	<b>0.0563</b>		<b>855.9258</b>

### 3.4 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1251	0.0000	0.1251	0.0190	0.0000	0.0190			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
<b>Total</b>	<b>4.2876</b>	<b>45.6559</b>	<b>35.0303</b>	<b>0.0399</b>	<b>0.1251</b>	<b>2.2921</b>	<b>2.4173</b>	<b>0.0190</b>	<b>2.1365</b>	<b>2.1555</b>		<b>4,089.2841</b>	<b>4,089.2841</b>	<b>1.1121</b>		<b>4,112.6374</b>

**3.4 Demolition - 2016**

**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	0.0202	0.1646	0.2586	4.3000e-004	0.0100	2.4500e-003	0.0125	2.7500e-003	2.2500e-003	5.0000e-003		43.1544	43.1544	3.2000e-004		43.1611
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	0.0995	0.1591	1.4255	2.1400e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		175.6322	175.6322	0.0116		175.8752
<b>Total</b>	<b>0.1197</b>	<b>0.3237</b>	<b>1.6841</b>	<b>2.5700e-003</b>	<b>0.2016</b>	<b>4.1200e-003</b>	<b>0.2057</b>	<b>0.0536</b>	<b>3.7700e-003</b>	<b>0.0573</b>		<b>218.7866</b>	<b>218.7866</b>	<b>0.0119</b>		<b>219.0363</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	lb/day										lb/day					
Fugitive Dust					0.1251	0.0000	0.1251	0.0190	0.0000	0.0190			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.284 1	4,089.284 1	1.1121		4,112.637 4
<b>Total</b>	<b>4.2876</b>	<b>45.6559</b>	<b>35.0303</b>	<b>0.0399</b>	<b>0.1251</b>	<b>2.2921</b>	<b>2.4173</b>	<b>0.0190</b>	<b>2.1365</b>	<b>2.1555</b>	<b>0.0000</b>	<b>4,089.284 1</b>	<b>4,089.284 1</b>	<b>1.1121</b>		<b>4,112.637 4</b>

### 3.4 Demolition - 2016

#### 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	0.0202	0.1646	0.2586	4.3000e-004	0.0100	2.4500e-003	0.0125	2.7500e-003	2.2500e-003	5.0000e-003		43.1544	43.1544	3.2000e-004		43.1611
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	0.0995	0.1591	1.4255	2.1400e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		175.6322	175.6322	0.0116		175.8752
<b>Total</b>	<b>0.1197</b>	<b>0.3237</b>	<b>1.6841</b>	<b>2.5700e-003</b>	<b>0.2016</b>	<b>4.1200e-003</b>	<b>0.2057</b>	<b>0.0536</b>	<b>3.7700e-003</b>	<b>0.0573</b>		<b>218.7866</b>	<b>218.7866</b>	<b>0.0119</b>		<b>219.0363</b>

### 3.5 Site Preparation - 2016

#### 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	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
<b>Total</b>	<b>5.0771</b>	<b>54.6323</b>	<b>41.1053</b>	<b>0.0391</b>	<b>18.0663</b>	<b>2.9387</b>	<b>21.0049</b>	<b>9.9307</b>	<b>2.7036</b>	<b>12.6343</b>		<b>4,065.0053</b>	<b>4,065.0053</b>	<b>1.2262</b>		<b>4,090.7544</b>



### 3.5 Site Preparation - 2016

#### 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	0.1194	0.1909	1.7107	2.5700e-003	0.2299	2.0000e-003	0.2319	0.0610	1.8200e-003	0.0628		210.7586	210.7586	0.0139		211.0502
<b>Total</b>	<b>0.1194</b>	<b>0.1909</b>	<b>1.7107</b>	<b>2.5700e-003</b>	<b>0.2299</b>	<b>2.0000e-003</b>	<b>0.2319</b>	<b>0.0610</b>	<b>1.8200e-003</b>	<b>0.0628</b>		<b>210.7586</b>	<b>210.7586</b>	<b>0.0139</b>		<b>211.0502</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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
<b>Total</b>	<b>5.0771</b>	<b>54.6323</b>	<b>41.1053</b>	<b>0.0391</b>	<b>18.0663</b>	<b>2.9387</b>	<b>21.0049</b>	<b>9.9307</b>	<b>2.7036</b>	<b>12.6343</b>	<b>0.0000</b>	<b>4,065.0053</b>	<b>4,065.0053</b>	<b>1.2262</b>		<b>4,090.7544</b>

### 3.5 Site Preparation - 2016

#### 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	0.1194	0.1909	1.7107	2.5700e-003	0.2299	2.0000e-003	0.2319	0.0610	1.8200e-003	0.0628		210.7586	210.7586	0.0139		211.0502
<b>Total</b>	<b>0.1194</b>	<b>0.1909</b>	<b>1.7107</b>	<b>2.5700e-003</b>	<b>0.2299</b>	<b>2.0000e-003</b>	<b>0.2319</b>	<b>0.0610</b>	<b>1.8200e-003</b>	<b>0.0628</b>		<b>210.7586</b>	<b>210.7586</b>	<b>0.0139</b>		<b>211.0502</b>

### 3.6 Grading - 2016

#### 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					6.5744	0.0000	6.5744	3.3699	0.0000	3.3699			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
<b>Total</b>	<b>6.4795</b>	<b>74.8137</b>	<b>49.1374</b>	<b>0.0617</b>	<b>6.5744</b>	<b>3.5842</b>	<b>10.1587</b>	<b>3.3699</b>	<b>3.2975</b>	<b>6.6674</b>		<b>6,414.9807</b>	<b>6,414.9807</b>	<b>1.9350</b>		<b>6,455.6154</b>

### 3.6 Grading - 2016

#### 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	0.1326	0.2122	1.9007	2.8600e-003	0.2555	2.2200e-003	0.2577	0.0678	2.0200e-003	0.0698		234.1763	234.1763	0.0154		234.5002
<b>Total</b>	<b>0.1326</b>	<b>0.2122</b>	<b>1.9007</b>	<b>2.8600e-003</b>	<b>0.2555</b>	<b>2.2200e-003</b>	<b>0.2577</b>	<b>0.0678</b>	<b>2.0200e-003</b>	<b>0.0698</b>		<b>234.1763</b>	<b>234.1763</b>	<b>0.0154</b>		<b>234.5002</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	lb/day										lb/day					
Fugitive Dust					6.5744	0.0000	6.5744	3.3699	0.0000	3.3699			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
<b>Total</b>	<b>6.4795</b>	<b>74.8137</b>	<b>49.1374</b>	<b>0.0617</b>	<b>6.5744</b>	<b>3.5842</b>	<b>10.1587</b>	<b>3.3699</b>	<b>3.2975</b>	<b>6.6674</b>	<b>0.0000</b>	<b>6,414.9807</b>	<b>6,414.9807</b>	<b>1.9350</b>		<b>6,455.6154</b>

**3.6 Grading - 2016**

**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	0.1326	0.2122	1.9007	2.8600e-003	0.2555	2.2200e-003	0.2577	0.0678	2.0200e-003	0.0698		234.1763	234.1763	0.0154		234.5002
<b>Total</b>	<b>0.1326</b>	<b>0.2122</b>	<b>1.9007</b>	<b>2.8600e-003</b>	<b>0.2555</b>	<b>2.2200e-003</b>	<b>0.2577</b>	<b>0.0678</b>	<b>2.0200e-003</b>	<b>0.0698</b>		<b>234.1763</b>	<b>234.1763</b>	<b>0.0154</b>		<b>234.5002</b>

**3.7 Paving - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>		<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

### 3.7 Paving - 2016

#### 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	0.0995	0.1591	1.4255	2.1400e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		175.6322	175.6322	0.0116		175.8752
<b>Total</b>	<b>0.0995</b>	<b>0.1591</b>	<b>1.4255</b>	<b>2.1400e-003</b>	<b>0.1916</b>	<b>1.6700e-003</b>	<b>0.1933</b>	<b>0.0508</b>	<b>1.5200e-003</b>	<b>0.0523</b>		<b>175.6322</b>	<b>175.6322</b>	<b>0.0116</b>		<b>175.8752</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	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.0898</b>	<b>22.3859</b>	<b>14.8176</b>	<b>0.0223</b>		<b>1.2610</b>	<b>1.2610</b>		<b>1.1601</b>	<b>1.1601</b>	<b>0.0000</b>	<b>2,316.3767</b>	<b>2,316.3767</b>	<b>0.6987</b>		<b>2,331.0495</b>

### 3.7 Paving - 2016

#### 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	0.0995	0.1591	1.4255	2.1400e-003	0.1916	1.6700e-003	0.1933	0.0508	1.5200e-003	0.0523		175.6322	175.6322	0.0116		175.8752
<b>Total</b>	<b>0.0995</b>	<b>0.1591</b>	<b>1.4255</b>	<b>2.1400e-003</b>	<b>0.1916</b>	<b>1.6700e-003</b>	<b>0.1933</b>	<b>0.0508</b>	<b>1.5200e-003</b>	<b>0.0523</b>		<b>175.6322</b>	<b>175.6322</b>	<b>0.0116</b>		<b>175.8752</b>

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.4089	65.1638	262.8127	0.3814	25.9570	0.7661	26.7231	6.9445	0.7042	7.6487		32,724.6175	32,724.6175	1.5697		32,757.5817
Unmitigated	23.4089	65.1638	262.8127	0.3814	25.9570	0.7661	26.7231	6.9445	0.7042	7.6487		32,724.6175	32,724.6175	1.5697		32,757.5817

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,469.57	1,596.68	1353.61	5,255,169	5,255,169
Condo/Townhouse High Rise	573.33	622.92	528.09	2,050,223	2,050,223
Condo/Townhouse High Rise	1,100.53	1,195.72	1013.69	3,935,485	3,935,485
User Defined Retail	0.00	0.00	0.00		
<b>Total</b>	<b>3,143.43</b>	<b>3,415.32</b>	<b>2,895.39</b>	<b>11,240,877</b>	<b>11,240,877</b>

**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
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
Condo/Townhouse High Rise	16.80	7.10	7.90	37.30	20.70	42.00	86	11	3
User Defined Retail	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.381852	0.086091	0.200079	0.163903	0.085749	0.010610	0.015453	0.038109	0.001550	0.000665	0.009389	0.000881	0.005669

**5.0 Energy Detail**

**4.4 Fleet Mix**

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	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387
NaturalGas Unmitigated	0.0969	0.8282	0.3524	5.2900e-003		0.0670	0.0670		0.0670	0.0670		1,057.3041	1,057.3041	0.0203	0.0194	1,063.7387

### 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					
Condo/Townhouse High Rise	1639.15	0.0177	0.1511	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122		192.8416	192.8416	3.7000e-003	3.5400e-003	194.0152
Condo/Townhouse High Rise	3146.42	0.0339	0.2900	0.1234	1.8500e-003		0.0234	0.0234		0.0234	0.0234		370.1673	370.1673	7.0900e-003	6.7900e-003	372.4201
Condo/Townhouse High Rise	4201.51	0.0453	0.3872	0.1648	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2952	494.2952	9.4700e-003	9.0600e-003	497.3034
User Defined Retail	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
<b>Total</b>		<b>0.0969</b>	<b>0.8282</b>	<b>0.3524</b>	<b>5.2800e-003</b>		<b>0.0670</b>	<b>0.0670</b>		<b>0.0670</b>	<b>0.0670</b>		<b>1,057.3041</b>	<b>1,057.3041</b>	<b>0.0203</b>	<b>0.0194</b>	<b>1,063.7387</b>



**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Retail	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
Condo/Townhouse High Rise	1.63915	0.0177	0.1511	0.0643	9.6000e-004		0.0122	0.0122		0.0122	0.0122		192.8416	192.8416	3.7000e-003	3.5400e-003	194.0152
Condo/Townhouse High Rise	3.14642	0.0339	0.2900	0.1234	1.8500e-003		0.0234	0.0234		0.0234	0.0234		370.1673	370.1673	7.0900e-003	6.7900e-003	372.4201
Condo/Townhouse High Rise	4.20151	0.0453	0.3872	0.1648	2.4700e-003		0.0313	0.0313		0.0313	0.0313		494.2952	494.2952	9.4700e-003	9.0600e-003	497.3034
<b>Total</b>		<b>0.0969</b>	<b>0.8282</b>	<b>0.3524</b>	<b>5.2800e-003</b>		<b>0.0670</b>	<b>0.0670</b>		<b>0.0670</b>	<b>0.0670</b>		<b>1,057.3041</b>	<b>1,057.3041</b>	<b>0.0203</b>	<b>0.0194</b>	<b>1,063.7387</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555
Unmitigated	2,215.8973	30.1757	2,737.5884	1.0559		379.2458	379.2458		379.2347	379.2347	39,741.3467	16,737.8006	56,479.1473	36.7458	3.1260	58,219.8555

### 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	6.9471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	17.7174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2,189.9952	29.7124	2,697.8389	1.0538		379.0300	379.0300		379.0189	379.0189	39,741.3467	16,666.9412	56,408.2879	36.6747	3.1260	58,147.5025
Landscaping	1.2376	0.4633	39.7495	2.0800e-003		0.2158	0.2158		0.2158	0.2158		70.8595	70.8595	0.0711		72.3530
<b>Total</b>	<b>2,215.8973</b>	<b>30.1757</b>	<b>2,737.5884</b>	<b>1.0559</b>		<b>379.2458</b>	<b>379.2458</b>		<b>379.2347</b>	<b>379.2347</b>	<b>39,741.3467</b>	<b>16,737.8006</b>	<b>56,479.1473</b>	<b>36.7458</b>	<b>3.1260</b>	<b>58,219.8555</b>

**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	6.9471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	17.7174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2,189.9952	29.7124	2,697.8389	1.0538		379.0300	379.0300		379.0189	379.0189	39,741.3467	16,666.9412	56,408.2879	36.6747	3.1260	58,147.5025
Landscaping	1.2376	0.4633	39.7495	2.0800e-003		0.2158	0.2158		0.2158	0.2158		70.8595	70.8595	0.0711		72.3530
<b>Total</b>	<b>2,215.8973</b>	<b>30.1757</b>	<b>2,737.5884</b>	<b>1.0559</b>		<b>379.2458</b>	<b>379.2458</b>		<b>379.2347</b>	<b>379.2347</b>	<b>39,741.3467</b>	<b>16,737.8006</b>	<b>56,479.1473</b>	<b>36.7458</b>	<b>3.1260</b>	<b>58,219.8555</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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# **ATTACHMENT 2**



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**Matthew F. Hagemann, P.G., C.Hg., QSD, QSP**

**Geologic and Hydrogeologic Characterization  
Industrial Stormwater Compliance  
Investigation and Remediation Strategies  
Litigation Support and Testifying Expert  
CEQA Review**

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.  
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist  
California Certified Hydrogeologist  
Qualified SWPPP Developer and Practitioner

**Professional Experience:**

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

**Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

**Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.



- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nationwide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

### **Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

### **Teaching:**

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

### **Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.**, 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F.** and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

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**JESSIE MARIE JAEGER**

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Technical Consultation, Data Analysis and  
Litigation Support for the Environment

**SOIL WATER AIR PROTECTION ENTERPRISE**

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Santa Monica, California 90405  
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**EDUCATION**

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UNIVERSITY OF CALIFORNIA, LOS ANGELES **B.S. CONSERVATION BIOLOGY & ENVIRONMENTAL SCIENCES**

*JUNE 2014*

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**PROJECT EXPERIENCE**

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**SOIL WATER AIR PROTECTION ENTERPRISE**

**SANTA MONICA, CA**

AIR QUALITY SPECIALIST

**SENIOR ANALYST: CEQA ANALYSIS & MODELING**

- Calculated roadway, stationary source, and cumulative impacts for risk and hazard analyses at proposed land use projects.
- Quantified criteria air pollutant and greenhouse gas emissions released during construction and operational activities of proposed land use projects using CalEEMod and EMFAC2011 emission factors.
- Utilized AERSCREEN, a screening dispersion model, to determine the ambient air concentrations at sensitive receptor locations.
- Organized presentations containing figures and tables comparing results of particulate matter analyses to CEQA thresholds.
- Prepared reports that discuss results of the health risk analyses conducted for several land use redevelopment projects.

**SENIOR ANALYST: GREENHOUSE GAS MODELING AND DETERMINATION OF SIGNIFICANCE**

- Quantified greenhouse gas (GHG) emissions of a "business as usual" scenario for proposed land use projects using CalEEMod.
- Determined compliance of proposed projects with AB 32 GHG reduction targets, with measures described in CARB's Scoping Plan for each land use sector, and with GHG significance thresholds recommended by various Air Quality Management Districts in California.
- Produced tables and figures that compare the results of the GHG analyses to applicable CEQA thresholds and reduction targets.

**PROJECT MANAGER: OFF-GASSING OF FORMALDEHYDE FROM FLOORING PRODUCTS**

- Determined the appropriate standard test methods to effectively measure formaldehyde emissions from flooring products.
- Compiled and analyzed laboratory testing data. Produced tables, charts, and graphs to exhibit emission levels.
- Compared finalized testing data to Proposition 65 No Significant Risk Level (NSRL) and to CARB's Phase 2 Standard.
- Prepared a final analytical report and organized supporting data for use as Expert testimony in environmental litigation.
- Participated in meetings with clients to discuss project strategy and identify solutions to achieve short and long term goals.

**PROJECT ANALYST: EXPOSURE ASSESSMENT OF CONTAMINANTS EMITTED BY INCINERATOR**

- Reviewed and organized sampling data, and determined the maximum levels of arsenic, dioxin, and lead in soil samples.
- Determined cumulative and hourly particulate deposition of incinerator and modeled particle dispersion locations using GIS and AERMOD.
- Conducted risk assessment using guidance set forth by the Office of Environmental Health Hazard Assessment (OEHHA).
- Utilized LeadSpread8 to evaluate exposure, and the potential adverse health effects from exposure, to lead in the environment.
- Compared final results of assessment to the Environmental Protection Agency's (EPA) Regional Screening Levels (RSLs).

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**ACCOMPLISHMENTS**

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- **Recipient**, Bruins Advantage Scholarship, University of California, Los Angeles **SEPT 2010 – JUNE 2014**
- **Academic Honoree**, Dean's List, University of California, Los Angeles **SEPT 2013 – JUNE 2014**
- **Academic Wellness Director**, UCLA Undergraduate Students Associated Council **SEPT 2013 – JUNE 2014**
- **Student Groups Support Committee Member**, UCLA Undergraduate Students Associated Council **SEPT 2012 – JUNE 2013**

# EXHIBIT 2