

**8.1**

**AIR QUALITY/GREENHOUSE GAS/ENERGY DATA**

This document is designed for double-sided printing to conserve natural resources.

Cannon St & Serrano Ave Intersection Improvements - South Coast AQMD Air District, Annual

**Cannon St & Serrano Ave Intersection Improvements**  
**South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.70	Acre	0.70	30,492.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	513	<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 - SCE 2018 Sustainability Report pg 10  
 Land Use -  
 Construction Phase - Anticipated construction schedule  
 Off-road Equipment - Anticipated construction equipment  
 Off-road Equipment - Anticipated construction equipment  
 Off-road Equipment - anticipated construction equipment  
 Grading -  
 Energy Use -  
 Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	NumDays	5.00	50.00
tblConstructionPhase	PhaseEndDate	8/14/2020	9/25/2020
tblConstructionPhase	PhaseEndDate	8/18/2020	11/20/2020
tblConstructionPhase	PhaseEndDate	8/25/2020	1/28/2021
tblConstructionPhase	PhaseStartDate	8/15/2020	9/26/2020
tblConstructionPhase	PhaseStartDate	8/19/2020	11/20/2020
tblGrading	MaterialExported	0.00	2,900.00
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblTripsAndVMT	WorkerTripNumber	13.00	20.00





Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.4000e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</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	Demolition	Demolition	8/1/2020	9/25/2020	5	40	
2	Grading	Grading	9/26/2020	11/20/2020	5	40	
3	Paving	Paving	11/20/2020	1/28/2021	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.7

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Demolition	Excavators	1	8.00	158	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42

Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Trenchers	1	8.00	78	0.50
Paving	Paving Equipment	1	7.00	132	0.36
Demolition	Signal Boards	2	8.00	6	0.82
Demolition		0	0.00	0	
Paving	Signal Boards	1	7.00	6	0.82
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Surfacing Equipment	1	7.00	263	0.30
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	20.00	0.00	363.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2020



**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0254	0.2334	0.2336	3.8000e-004		0.0124	0.0124		0.0118	0.0118	0.0000	32.4811	32.4811	7.3200e-003	0.0000	32.6640
<b>Total</b>	<b>0.0254</b>	<b>0.2334</b>	<b>0.2336</b>	<b>3.8000e-004</b>		<b>0.0124</b>	<b>0.0124</b>		<b>0.0118</b>	<b>0.0118</b>	<b>0.0000</b>	<b>32.4811</b>	<b>32.4811</b>	<b>7.3200e-003</b>	<b>0.0000</b>	<b>32.6640</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7900e-003	1.3700e-003	0.0152	4.0000e-005	4.3900e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.9507	3.9507	1.1000e-004	0.0000	3.9535
<b>Total</b>	<b>1.7900e-003</b>	<b>1.3700e-003</b>	<b>0.0152</b>	<b>4.0000e-005</b>	<b>4.3900e-003</b>	<b>3.0000e-005</b>	<b>4.4200e-003</b>	<b>1.1700e-003</b>	<b>3.0000e-005</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>3.9507</b>	<b>3.9507</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.9535</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
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Category	tons/yr										MT/yr					
Off-Road	0.0254	0.2334	0.2336	3.8000e-004		0.0124	0.0124		0.0118	0.0118	0.0000	32.4811	32.4811	7.3200e-003	0.0000	32.6640
<b>Total</b>	<b>0.0254</b>	<b>0.2334</b>	<b>0.2336</b>	<b>3.8000e-004</b>		<b>0.0124</b>	<b>0.0124</b>		<b>0.0118</b>	<b>0.0118</b>	<b>0.0000</b>	<b>32.4811</b>	<b>32.4811</b>	<b>7.3200e-003</b>	<b>0.0000</b>	<b>32.6640</b>

### Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7900e-003	1.3700e-003	0.0152	4.0000e-005	4.3900e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.9507	3.9507	1.1000e-004	0.0000	3.9535
<b>Total</b>	<b>1.7900e-003</b>	<b>1.3700e-003</b>	<b>0.0152</b>	<b>4.0000e-005</b>	<b>4.3900e-003</b>	<b>3.0000e-005</b>	<b>4.4200e-003</b>	<b>1.1700e-003</b>	<b>3.0000e-005</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>3.9507</b>	<b>3.9507</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.9535</b>

### 3.3 Grading - 2020

#### Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0108	0.0000	0.0108	1.1700e-003	0.0000	1.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0358	0.3871	0.2710	4.7000e-004		0.0196	0.0196		0.0180	0.0180	0.0000	41.6222	41.6222	0.0135	0.0000	41.9587

<b>Total</b>	<b>0.0358</b>	<b>0.3871</b>	<b>0.2710</b>	<b>4.7000e-004</b>	<b>0.0108</b>	<b>0.0196</b>	<b>0.0304</b>	<b>1.1700e-003</b>	<b>0.0180</b>	<b>0.0192</b>	<b>0.0000</b>	<b>41.6222</b>	<b>41.6222</b>	<b>0.0135</b>	<b>0.0000</b>	<b>41.9587</b>
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**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	1.4000e-003	0.0509	0.0102	1.4000e-004	3.1200e-003	1.6000e-004	3.2800e-003	8.6000e-004	1.5000e-004	1.0100e-003	0.0000	13.6967	13.6967	9.4000e-004	0.0000	13.7203
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7900e-003	1.3700e-003	0.0152	4.0000e-005	4.3900e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.9507	3.9507	1.1000e-004	0.0000	3.9535
<b>Total</b>	<b>3.1900e-003</b>	<b>0.0523</b>	<b>0.0253</b>	<b>1.8000e-004</b>	<b>7.5100e-003</b>	<b>1.9000e-004</b>	<b>7.7000e-003</b>	<b>2.0300e-003</b>	<b>1.8000e-004</b>	<b>2.2100e-003</b>	<b>0.0000</b>	<b>17.6474</b>	<b>17.6474</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>17.6738</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					4.2000e-003	0.0000	4.2000e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0358	0.3871	0.2710	4.7000e-004		0.0196	0.0196		0.0180	0.0180	0.0000	41.6221	41.6221	0.0135	0.0000	41.9587
<b>Total</b>	<b>0.0358</b>	<b>0.3871</b>	<b>0.2710</b>	<b>4.7000e-004</b>	<b>4.2000e-003</b>	<b>0.0196</b>	<b>0.0238</b>	<b>4.6000e-004</b>	<b>0.0180</b>	<b>0.0185</b>	<b>0.0000</b>	<b>41.6221</b>	<b>41.6221</b>	<b>0.0135</b>	<b>0.0000</b>	<b>41.9587</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0509	0.0102	1.4000e-004	3.1200e-003	1.6000e-004	3.2800e-003	8.6000e-004	1.5000e-004	1.0100e-003	0.0000	13.6967	13.6967	9.4000e-004	0.0000	13.7203
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7900e-003	1.3700e-003	0.0152	4.0000e-005	4.3900e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.9507	3.9507	1.1000e-004	0.0000	3.9535
<b>Total</b>	<b>3.1900e-003</b>	<b>0.0523</b>	<b>0.0253</b>	<b>1.8000e-004</b>	<b>7.5100e-003</b>	<b>1.9000e-004</b>	<b>7.7000e-003</b>	<b>2.0300e-003</b>	<b>1.8000e-004</b>	<b>2.2100e-003</b>	<b>0.0000</b>	<b>17.6474</b>	<b>17.6474</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>17.6738</b>

### 3.4 Paving - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0177	0.1748	0.1662	3.2000e-004		8.7400e-003	8.7400e-003		8.1000e-003	8.1000e-003	0.0000	27.1886	27.1886	8.2100e-003	0.0000	27.3939
Paving	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0183</b>	<b>0.1748</b>	<b>0.1662</b>	<b>3.2000e-004</b>		<b>8.7400e-003</b>	<b>8.7400e-003</b>		<b>8.1000e-003</b>	<b>8.1000e-003</b>	<b>0.0000</b>	<b>27.1886</b>	<b>27.1886</b>	<b>8.2100e-003</b>	<b>0.0000</b>	<b>27.3939</b>

#### Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6700e-003	1.2800e-003	0.0142	4.0000e-005	4.1100e-003	3.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.7038	3.7038	1.1000e-004	0.0000	3.7064
<b>Total</b>	<b>1.6700e-003</b>	<b>1.2800e-003</b>	<b>0.0142</b>	<b>4.0000e-005</b>	<b>4.1100e-003</b>	<b>3.0000e-005</b>	<b>4.1500e-003</b>	<b>1.0900e-003</b>	<b>3.0000e-005</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>3.7038</b>	<b>3.7038</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.7064</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	0.0177	0.1748	0.1662	3.2000e-004		8.7400e-003	8.7400e-003		8.1000e-003	8.1000e-003	0.0000	27.1886	27.1886	8.2100e-003	0.0000	27.3939
Paving	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0183</b>	<b>0.1748</b>	<b>0.1662</b>	<b>3.2000e-004</b>		<b>8.7400e-003</b>	<b>8.7400e-003</b>		<b>8.1000e-003</b>	<b>8.1000e-003</b>	<b>0.0000</b>	<b>27.1886</b>	<b>27.1886</b>	<b>8.2100e-003</b>	<b>0.0000</b>	<b>27.3939</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6700e-003	1.2800e-003	0.0142	4.0000e-005	4.1100e-003	3.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.7038	3.7038	1.1000e-004	0.0000	3.7064
<b>Total</b>	<b>1.6700e-003</b>	<b>1.2800e-003</b>	<b>0.0142</b>	<b>4.0000e-005</b>	<b>4.1100e-003</b>	<b>3.0000e-005</b>	<b>4.1500e-003</b>	<b>1.0900e-003</b>	<b>3.0000e-005</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>3.7038</b>	<b>3.7038</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.7064</b>

### 3.4 Paving - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0111	0.1086	0.1104	2.1000e-004		5.2700e-003	5.2700e-003		4.8900e-003	4.8900e-003	0.0000	18.1260	18.1260	5.4700e-003	0.0000	18.2628
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0115</b>	<b>0.1086</b>	<b>0.1104</b>	<b>2.1000e-004</b>		<b>5.2700e-003</b>	<b>5.2700e-003</b>		<b>4.8900e-003</b>	<b>4.8900e-003</b>	<b>0.0000</b>	<b>18.1260</b>	<b>18.1260</b>	<b>5.4700e-003</b>	<b>0.0000</b>	<b>18.2628</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0400e-003	7.7000e-004	8.7100e-003	3.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.3892	2.3892	6.0000e-005	0.0000	2.3908
<b>Total</b>	<b>1.0400e-003</b>	<b>7.7000e-004</b>	<b>8.7100e-003</b>	<b>3.0000e-005</b>	<b>2.7400e-003</b>	<b>2.0000e-005</b>	<b>2.7600e-003</b>	<b>7.3000e-004</b>	<b>2.0000e-005</b>	<b>7.5000e-004</b>	<b>0.0000</b>	<b>2.3892</b>	<b>2.3892</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.3908</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	0.0111	0.1086	0.1104	2.1000e-004		5.2700e-003	5.2700e-003		4.8900e-003	4.8900e-003	0.0000	18.1260	18.1260	5.4700e-003	0.0000	18.2628
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0115</b>	<b>0.1086</b>	<b>0.1104</b>	<b>2.1000e-004</b>		<b>5.2700e-003</b>	<b>5.2700e-003</b>		<b>4.8900e-003</b>	<b>4.8900e-003</b>	<b>0.0000</b>	<b>18.1260</b>	<b>18.1260</b>	<b>5.4700e-003</b>	<b>0.0000</b>	<b>18.2628</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0400e-003	7.7000e-004	8.7100e-003	3.0000e-005	2.7400e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.3892	2.3892	6.0000e-005	0.0000	2.3908
<b>Total</b>	<b>1.0400e-003</b>	<b>7.7000e-004</b>	<b>8.7100e-003</b>	<b>3.0000e-005</b>	<b>2.7400e-003</b>	<b>2.0000e-005</b>	<b>2.7600e-003</b>	<b>7.3000e-004</b>	<b>2.0000e-005</b>	<b>7.5000e-004</b>	<b>0.0000</b>	<b>2.3892</b>	<b>2.3892</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.3908</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
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### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4000e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	2.4000e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

### 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
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SubCategory	tons/yr								MT/yr							
	Architectural Coating	4.2000e-004					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9700e-003					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005	
<b>Total</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

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

### 7.2 Water by Land Use

#### Unmitigated

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

<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
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**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

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

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 9.0 Operational Offroad

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

### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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**11.0 Vegetation**

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Cannon St & Serrano Ave Intersection Improvements - South Coast AQMD Air District, Summer

**Cannon St & Serrano Ave Intersection Improvements**  
**South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.70	Acre	0.70	30,492.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	513	<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 - SCE 2018 Sustainability Report pg 10

Land Use -

Construction Phase - Anticipated construction schedule

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - anticipated construction equipment

Grading -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403



Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	NumDays	5.00	50.00
tblConstructionPhase	PhaseEndDate	8/14/2020	9/25/2020
tblConstructionPhase	PhaseEndDate	8/18/2020	11/20/2020
tblConstructionPhase	PhaseEndDate	8/25/2020	1/28/2021
tblConstructionPhase	PhaseStartDate	8/15/2020	9/26/2020
tblConstructionPhase	PhaseStartDate	8/19/2020	11/20/2020
tblGrading	MaterialExported	0.00	2,900.00
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblTripsAndVMT	WorkerTripNumber	13.00	20.00





### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2020	9/25/2020	5	40	
2	Grading	Grading	9/26/2020	11/20/2020	5	40	
3	Paving	Paving	11/20/2020	1/28/2021	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.7

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Demolition	Excavators	1	8.00	158	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Trenchers	1	8.00	78	0.50
Paving	Paving Equipment	1	7.00	132	0.36
Demolition	Signal Boards	2	8.00	6	0.82
Demolition	Signal Boards	0	0.00	0	
Paving	Signal Boards	1	7.00	6	0.82
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38

Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Surfacing Equipment	1	7.00	263	0.30
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	20.00	0.00	363.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2719	11.6692	11.6785	0.0190		0.6194	0.6194		0.5879	0.5879		1,790.2143	1,790.2143	0.4032		1,800.2942
<b>Total</b>	<b>1.2719</b>	<b>11.6692</b>	<b>11.6785</b>	<b>0.0190</b>		<b>0.6194</b>	<b>0.6194</b>		<b>0.5879</b>	<b>0.5879</b>		<b>1,790.2143</b>	<b>1,790.2143</b>	<b>0.4032</b>		<b>1,800.2942</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0905	0.0608	0.8176	2.3000e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		228.8835	228.8835	6.5800e-003		229.0480
<b>Total</b>	<b>0.0905</b>	<b>0.0608</b>	<b>0.8176</b>	<b>2.3000e-003</b>	<b>0.2236</b>	<b>1.7000e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.5600e-003</b>	<b>0.0609</b>		<b>228.8835</b>	<b>228.8835</b>	<b>6.5800e-003</b>		<b>229.0480</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	1.2719	11.6692	11.6785	0.0190		0.6194	0.6194		0.5879	0.5879	0.0000	1,790.2142	1,790.2142	0.4032		1,800.2942
<b>Total</b>	<b>1.2719</b>	<b>11.6692</b>	<b>11.6785</b>	<b>0.0190</b>		<b>0.6194</b>	<b>0.6194</b>		<b>0.5879</b>	<b>0.5879</b>	<b>0.0000</b>	<b>1,790.2142</b>	<b>1,790.2142</b>	<b>0.4032</b>		<b>1,800.2942</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0905	0.0608	0.8176	2.3000e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		228.8835	228.8835	6.5800e-003		229.0480
<b>Total</b>	<b>0.0905</b>	<b>0.0608</b>	<b>0.8176</b>	<b>2.3000e-003</b>	<b>0.2236</b>	<b>1.7000e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.5600e-003</b>	<b>0.0609</b>		<b>228.8835</b>	<b>228.8835</b>	<b>6.5800e-003</b>		<b>229.0480</b>

### 3.3 Grading - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5385	0.0000	0.5385	0.0585	0.0000	0.0585			0.0000			0.0000
Off-Road	1.7917	19.3527	13.5504	0.0237		0.9796	0.9796		0.9013	0.9013		2,294.0296	2,294.0296	0.7419		2,312.5780
<b>Total</b>	<b>1.7917</b>	<b>19.3527</b>	<b>13.5504</b>	<b>0.0237</b>	<b>0.5385</b>	<b>0.9796</b>	<b>1.5181</b>	<b>0.0585</b>	<b>0.9013</b>	<b>0.9598</b>		<b>2,294.0296</b>	<b>2,294.0296</b>	<b>0.7419</b>		<b>2,312.5780</b>

#### Unmitigated Construction Off-Site

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

Hauling	0.0689	2.4697	0.4914	7.0400e-003	0.1586	7.9600e-003	0.1665	0.0435	7.6200e-003	0.0511		760.7838	760.7838	0.0511		762.0601
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	0.0905	0.0608	0.8176	2.3000e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		228.8835	228.8835	6.5800e-003		229.0480
<b>Total</b>	<b>0.1594</b>	<b>2.5305</b>	<b>1.3091</b>	<b>9.3400e-003</b>	<b>0.3821</b>	<b>9.6600e-003</b>	<b>0.3918</b>	<b>0.1028</b>	<b>9.1800e-003</b>	<b>0.1119</b>		<b>989.6673</b>	<b>989.6673</b>	<b>0.0576</b>		<b>991.1081</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					0.2100	0.0000	0.2100	0.0228	0.0000	0.0228			0.0000				0.0000
Off-Road	1.7917	19.3527	13.5504	0.0237		0.9796	0.9796		0.9013	0.9013	0.0000	2,294.0296	2,294.0296	0.7419			2,312.5780
<b>Total</b>	<b>1.7917</b>	<b>19.3527</b>	<b>13.5504</b>	<b>0.0237</b>	<b>0.2100</b>	<b>0.9796</b>	<b>1.1896</b>	<b>0.0228</b>	<b>0.9013</b>	<b>0.9241</b>	<b>0.0000</b>	<b>2,294.0296</b>	<b>2,294.0296</b>	<b>0.7419</b>			<b>2,312.5780</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0689	2.4697	0.4914	7.0400e-003	0.1586	7.9600e-003	0.1665	0.0435	7.6200e-003	0.0511		760.7838	760.7838	0.0511		762.0601
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	0.0905	0.0608	0.8176	2.3000e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		228.8835	228.8835	6.5800e-003		229.0480
<b>Total</b>	<b>0.1594</b>	<b>2.5305</b>	<b>1.3091</b>	<b>9.3400e-003</b>	<b>0.3821</b>	<b>9.6600e-003</b>	<b>0.3918</b>	<b>0.1028</b>	<b>9.1800e-003</b>	<b>0.1119</b>		<b>989.6673</b>	<b>989.6673</b>	<b>0.0576</b>		<b>991.1081</b>



### 3.4 Paving - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1805	11.6522	11.0781	0.0214		0.5824	0.5824		0.5402	0.5402		1,998.0208	1,998.0208	0.6034		2,013.1069
Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2172</b>	<b>11.6522</b>	<b>11.0781</b>	<b>0.0214</b>		<b>0.5824</b>	<b>0.5824</b>		<b>0.5402</b>	<b>0.5402</b>		<b>1,998.0208</b>	<b>1,998.0208</b>	<b>0.6034</b>		<b>2,013.1069</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.1131	0.0760	1.0221	2.8700e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		286.1044	286.1044	8.2300e-003		286.3100
<b>Total</b>	<b>0.1131</b>	<b>0.0760</b>	<b>1.0221</b>	<b>2.8700e-003</b>	<b>0.2794</b>	<b>2.1200e-003</b>	<b>0.2816</b>	<b>0.0741</b>	<b>1.9500e-003</b>	<b>0.0761</b>		<b>286.1044</b>	<b>286.1044</b>	<b>8.2300e-003</b>		<b>286.3100</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	1.1805	11.6522	11.0781	0.0214		0.5824	0.5824		0.5402	0.5402	0.0000	1,998.0208	1,998.0208	0.6034		2,013.1069
Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2172</b>	<b>11.6522</b>	<b>11.0781</b>	<b>0.0214</b>		<b>0.5824</b>	<b>0.5824</b>		<b>0.5402</b>	<b>0.5402</b>	<b>0.0000</b>	<b>1,998.0208</b>	<b>1,998.0208</b>	<b>0.6034</b>		<b>2,013.1069</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1131	0.0760	1.0221	2.8700e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		286.1044	286.1044	8.2300e-003		286.3100
<b>Total</b>	<b>0.1131</b>	<b>0.0760</b>	<b>1.0221</b>	<b>2.8700e-003</b>	<b>0.2794</b>	<b>2.1200e-003</b>	<b>0.2816</b>	<b>0.0741</b>	<b>1.9500e-003</b>	<b>0.0761</b>		<b>286.1044</b>	<b>286.1044</b>	<b>8.2300e-003</b>		<b>286.3100</b>

### **3.4 Paving - 2021**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1111	10.8642	11.0409	0.0214		0.5268	0.5268		0.4891	0.4891		1,998.0477	1,998.0477	0.6035		2,013.1340

Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1478</b>	<b>10.8642</b>	<b>11.0409</b>	<b>0.0214</b>		<b>0.5268</b>	<b>0.5268</b>		<b>0.4891</b>	<b>0.4891</b>		<b>1,998.0477</b>	<b>1,998.0477</b>	<b>0.6035</b>		<b>2,013.1340</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.1055	0.0684	0.9418	2.7800e-003	0.2794	2.0600e-003	0.2815	0.0741	1.8900e-003	0.0760		276.8508	276.8508	7.4400e-003		277.0370
<b>Total</b>	<b>0.1055</b>	<b>0.0684</b>	<b>0.9418</b>	<b>2.7800e-003</b>	<b>0.2794</b>	<b>2.0600e-003</b>	<b>0.2815</b>	<b>0.0741</b>	<b>1.8900e-003</b>	<b>0.0760</b>		<b>276.8508</b>	<b>276.8508</b>	<b>7.4400e-003</b>		<b>277.0370</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	1.1111	10.8642	11.0409	0.0214		0.5268	0.5268		0.4891	0.4891	0.0000	1,998.0477	1,998.0477	0.6035		2,013.1340
Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1478</b>	<b>10.8642</b>	<b>11.0409</b>	<b>0.0214</b>		<b>0.5268</b>	<b>0.5268</b>		<b>0.4891</b>	<b>0.4891</b>	<b>0.0000</b>	<b>1,998.0477</b>	<b>1,998.0477</b>	<b>0.6035</b>		<b>2,013.1340</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1055	0.0684	0.9418	2.7800e-003	0.2794	2.0600e-003	0.2815	0.0741	1.8900e-003	0.0760		276.8508	276.8508	7.4400e-003		277.0370
<b>Total</b>	<b>0.1055</b>	<b>0.0684</b>	<b>0.9418</b>	<b>2.7800e-003</b>	<b>0.2794</b>	<b>2.0600e-003</b>	<b>0.2815</b>	<b>0.0741</b>	<b>1.8900e-003</b>	<b>0.0760</b>		<b>276.8508</b>	<b>276.8508</b>	<b>7.4400e-003</b>		<b>277.0370</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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

#### 4.2 Trip Summary Information

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

Other Asphalt Surfaces	0.00	0.00	0.00	
Total	0.00	0.00	0.00	

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

### 4.4 Fleet Mix

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

### 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

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

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

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

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</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	0.0131	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004
Unmitigated	0.0131	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0108					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004
<b>Total</b>	<b>0.0131</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>		<b>1.6000e-004</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0108					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004
<b>Total</b>	<b>0.0131</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>		<b>1.6000e-004</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 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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Cannon St & Serrano Ave Intersection Improvements - South Coast AQMD Air District, Winter

**Cannon St & Serrano Ave Intersection Improvements**  
**South Coast AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.70	Acre	0.70	30,492.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	8			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	513	<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 - SCE 2018 Sustainability Report pg 10

Land Use -

Construction Phase - Anticipated construction schedule

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - Anticipated construction equipment

Off-road Equipment - anticipated construction equipment

Grading -

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	6
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	40.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	NumDays	5.00	50.00
tblConstructionPhase	PhaseEndDate	8/14/2020	9/25/2020
tblConstructionPhase	PhaseEndDate	8/18/2020	11/20/2020
tblConstructionPhase	PhaseEndDate	8/25/2020	1/28/2021
tblConstructionPhase	PhaseStartDate	8/15/2020	9/26/2020
tblConstructionPhase	PhaseStartDate	8/19/2020	11/20/2020
tblGrading	MaterialExported	0.00	2,900.00
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblTripsAndVMT	WorkerTripNumber	13.00	20.00





### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2020	9/25/2020	5	40	
2	Grading	Grading	9/26/2020	11/20/2020	5	40	
3	Paving	Paving	11/20/2020	1/28/2021	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.7

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

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Demolition	Excavators	1	8.00	158	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Trenchers	1	8.00	78	0.50
Paving	Paving Equipment	1	7.00	132	0.36
Demolition	Signal Boards	2	8.00	6	0.82
Demolition		0	0.00	0	
Paving	Signal Boards	1	7.00	6	0.82
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38

Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Surfacing Equipment	1	7.00	263	0.30
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	20.00	0.00	363.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2719	11.6692	11.6785	0.0190		0.6194	0.6194		0.5879	0.5879		1,790.2143	1,790.2143	0.4032		1,800.2942
<b>Total</b>	<b>1.2719</b>	<b>11.6692</b>	<b>11.6785</b>	<b>0.0190</b>		<b>0.6194</b>	<b>0.6194</b>		<b>0.5879</b>	<b>0.5879</b>		<b>1,790.2143</b>	<b>1,790.2143</b>	<b>0.4032</b>		<b>1,800.2942</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0987	0.0666	0.7362	2.1500e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		214.0730	214.0730	6.1400e-003		214.2265
<b>Total</b>	<b>0.0987</b>	<b>0.0666</b>	<b>0.7362</b>	<b>2.1500e-003</b>	<b>0.2236</b>	<b>1.7000e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.5600e-003</b>	<b>0.0609</b>		<b>214.0730</b>	<b>214.0730</b>	<b>6.1400e-003</b>		<b>214.2265</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	1.2719	11.6692	11.6785	0.0190		0.6194	0.6194		0.5879	0.5879	0.0000	1,790.2142	1,790.2142	0.4032		1,800.2942
<b>Total</b>	<b>1.2719</b>	<b>11.6692</b>	<b>11.6785</b>	<b>0.0190</b>		<b>0.6194</b>	<b>0.6194</b>		<b>0.5879</b>	<b>0.5879</b>	<b>0.0000</b>	<b>1,790.2142</b>	<b>1,790.2142</b>	<b>0.4032</b>		<b>1,800.2942</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0987	0.0666	0.7362	2.1500e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		214.0730	214.0730	6.1400e-003		214.2265
<b>Total</b>	<b>0.0987</b>	<b>0.0666</b>	<b>0.7362</b>	<b>2.1500e-003</b>	<b>0.2236</b>	<b>1.7000e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.5600e-003</b>	<b>0.0609</b>		<b>214.0730</b>	<b>214.0730</b>	<b>6.1400e-003</b>		<b>214.2265</b>

### 3.3 Grading - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5385	0.0000	0.5385	0.0585	0.0000	0.0585			0.0000			0.0000
Off-Road	1.7917	19.3527	13.5504	0.0237		0.9796	0.9796		0.9013	0.9013		2,294.0296	2,294.0296	0.7419		2,312.5780
<b>Total</b>	<b>1.7917</b>	<b>19.3527</b>	<b>13.5504</b>	<b>0.0237</b>	<b>0.5385</b>	<b>0.9796</b>	<b>1.5181</b>	<b>0.0585</b>	<b>0.9013</b>	<b>0.9598</b>		<b>2,294.0296</b>	<b>2,294.0296</b>	<b>0.7419</b>		<b>2,312.5780</b>

#### Unmitigated Construction Off-Site

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



Hauling	0.0709	2.5014	0.5290	6.9100e-003	0.1586	8.0800e-003	0.1667	0.0435	7.7300e-003	0.0512		746.7800	746.7800	0.0533		748.1117
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	0.0987	0.0666	0.7362	2.1500e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		214.0730	214.0730	6.1400e-003		214.2265
<b>Total</b>	<b>0.1696</b>	<b>2.5680</b>	<b>1.2652</b>	<b>9.0600e-003</b>	<b>0.3821</b>	<b>9.7800e-003</b>	<b>0.3919</b>	<b>0.1028</b>	<b>9.2900e-003</b>	<b>0.1120</b>		<b>960.8530</b>	<b>960.8530</b>	<b>0.0594</b>		<b>962.3382</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					0.2100	0.0000	0.2100	0.0228	0.0000	0.0228			0.0000				0.0000
Off-Road	1.7917	19.3527	13.5504	0.0237		0.9796	0.9796		0.9013	0.9013	0.0000	2,294.0296	2,294.0296	0.7419			2,312.5780
<b>Total</b>	<b>1.7917</b>	<b>19.3527</b>	<b>13.5504</b>	<b>0.0237</b>	<b>0.2100</b>	<b>0.9796</b>	<b>1.1896</b>	<b>0.0228</b>	<b>0.9013</b>	<b>0.9241</b>	<b>0.0000</b>	<b>2,294.0296</b>	<b>2,294.0296</b>	<b>0.7419</b>			<b>2,312.5780</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0709	2.5014	0.5290	6.9100e-003	0.1586	8.0800e-003	0.1667	0.0435	7.7300e-003	0.0512		746.7800	746.7800	0.0533		748.1117
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	0.0987	0.0666	0.7362	2.1500e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		214.0730	214.0730	6.1400e-003		214.2265
<b>Total</b>	<b>0.1696</b>	<b>2.5680</b>	<b>1.2652</b>	<b>9.0600e-003</b>	<b>0.3821</b>	<b>9.7800e-003</b>	<b>0.3919</b>	<b>0.1028</b>	<b>9.2900e-003</b>	<b>0.1120</b>		<b>960.8530</b>	<b>960.8530</b>	<b>0.0594</b>		<b>962.3382</b>

### 3.4 Paving - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1805	11.6522	11.0781	0.0214		0.5824	0.5824		0.5402	0.5402		1,998.0208	1,998.0208	0.6034		2,013.1069
Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2172</b>	<b>11.6522</b>	<b>11.0781</b>	<b>0.0214</b>		<b>0.5824</b>	<b>0.5824</b>		<b>0.5402</b>	<b>0.5402</b>		<b>1,998.0208</b>	<b>1,998.0208</b>	<b>0.6034</b>		<b>2,013.1069</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.1234	0.0833	0.9202	2.6900e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		267.5912	267.5912	7.6700e-003		267.7831
<b>Total</b>	<b>0.1234</b>	<b>0.0833</b>	<b>0.9202</b>	<b>2.6900e-003</b>	<b>0.2794</b>	<b>2.1200e-003</b>	<b>0.2816</b>	<b>0.0741</b>	<b>1.9500e-003</b>	<b>0.0761</b>		<b>267.5912</b>	<b>267.5912</b>	<b>7.6700e-003</b>		<b>267.7831</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	1.1805	11.6522	11.0781	0.0214		0.5824	0.5824		0.5402	0.5402	0.0000	1,998.0208	1,998.0208	0.6034		2,013.1069
Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2172</b>	<b>11.6522</b>	<b>11.0781</b>	<b>0.0214</b>		<b>0.5824</b>	<b>0.5824</b>		<b>0.5402</b>	<b>0.5402</b>	<b>0.0000</b>	<b>1,998.0208</b>	<b>1,998.0208</b>	<b>0.6034</b>		<b>2,013.1069</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1234	0.0833	0.9202	2.6900e-003	0.2794	2.1200e-003	0.2816	0.0741	1.9500e-003	0.0761		267.5912	267.5912	7.6700e-003		267.7831
<b>Total</b>	<b>0.1234</b>	<b>0.0833</b>	<b>0.9202</b>	<b>2.6900e-003</b>	<b>0.2794</b>	<b>2.1200e-003</b>	<b>0.2816</b>	<b>0.0741</b>	<b>1.9500e-003</b>	<b>0.0761</b>		<b>267.5912</b>	<b>267.5912</b>	<b>7.6700e-003</b>		<b>267.7831</b>

### **3.4 Paving - 2021**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1111	10.8642	11.0409	0.0214		0.5268	0.5268		0.4891	0.4891		1,998.0477	1,998.0477	0.6035		2,013.1340

Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1478</b>	<b>10.8642</b>	<b>11.0409</b>	<b>0.0214</b>		<b>0.5268</b>	<b>0.5268</b>		<b>0.4891</b>	<b>0.4891</b>		<b>1,998.0477</b>	<b>1,998.0477</b>	<b>0.6035</b>		<b>2,013.1340</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.1153	0.0749	0.8464	2.6000e-003	0.2794	2.0600e-003	0.2815	0.0741	1.8900e-003	0.0760		258.9170	258.9170	6.9400e-003		259.0904
<b>Total</b>	<b>0.1153</b>	<b>0.0749</b>	<b>0.8464</b>	<b>2.6000e-003</b>	<b>0.2794</b>	<b>2.0600e-003</b>	<b>0.2815</b>	<b>0.0741</b>	<b>1.8900e-003</b>	<b>0.0760</b>		<b>258.9170</b>	<b>258.9170</b>	<b>6.9400e-003</b>		<b>259.0904</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	1.1111	10.8642	11.0409	0.0214		0.5268	0.5268		0.4891	0.4891	0.0000	1,998.0477	1,998.0477	0.6035		2,013.1340
Paving	0.0367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1478</b>	<b>10.8642</b>	<b>11.0409</b>	<b>0.0214</b>		<b>0.5268</b>	<b>0.5268</b>		<b>0.4891</b>	<b>0.4891</b>	<b>0.0000</b>	<b>1,998.0477</b>	<b>1,998.0477</b>	<b>0.6035</b>		<b>2,013.1340</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1153	0.0749	0.8464	2.6000e-003	0.2794	2.0600e-003	0.2815	0.0741	1.8900e-003	0.0760		258.9170	258.9170	6.9400e-003		259.0904
<b>Total</b>	<b>0.1153</b>	<b>0.0749</b>	<b>0.8464</b>	<b>2.6000e-003</b>	<b>0.2794</b>	<b>2.0600e-003</b>	<b>0.2815</b>	<b>0.0741</b>	<b>1.8900e-003</b>	<b>0.0760</b>		<b>258.9170</b>	<b>258.9170</b>	<b>6.9400e-003</b>		<b>259.0904</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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

#### 4.2 Trip Summary Information

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

Other Asphalt Surfaces	0.00	0.00	0.00	
Total	0.00	0.00	0.00	

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

### 4.4 Fleet Mix

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

### 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

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

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

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

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</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	0.0131	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004
Unmitigated	0.0131	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0108					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004
<b>Total</b>	<b>0.0131</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>		<b>1.6000e-004</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0108					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000



Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.5000e-004	1.5000e-004	0.0000		1.6000e-004
<b>Total</b>	<b>0.0131</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>		<b>1.6000e-004</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 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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**Canon Serrano Construction Energy Usage**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Fuel Consumption Rate (gallons per hour)	Duration (total hours/day)	# days	Total Fuel Consumption (gallons)
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73	2.3652	8	40	756.864
Demolition	Excavators	1	8.00	158	0.38	2.4016	8	40	768.512
Demolition	Other Construction Equipment	1	8.00	172	0.42	2.8896	8	40	924.672
Demolition	Signal Boards	2	8.00	6	0.82	0.1968	16	40	125.952
Grading	Excavators	1	8.00	158	0.38	2.4016	8	40	768.512
Grading	Graders	1	8.00	187	0.41	3.0668	8	40	981.376
Grading	Other Construction Equipment	1	8.00	172	0.42	2.8896	8	40	924.672
Grading	Trenchers	1	8.00	78	0.50	1.56	8	40	499.2
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37	1.4356	6	40	344.544
Paving	Paving Equipment	1	7.00	132	0.36	1.9008	7	50	665.28
Paving	Signal Boards	1	7.00	6	0.82	0.1968	7	50	68.88
Paving	Cement and Mortar Mixers	4	6.00	9	0.56	0.2016	24	50	241.92
Paving	Pavers	1	7.00	130	0.42	2.184	7	50	764.4
Paving	Rollers	1	7.00	80	0.38	1.216	7	50	425.6
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37	1.4356	7	50	502.46
Paving	Surfacing Equipment	1	7.00	263	0.30	3.156	7	50	1104.6

**Total: 11,175**

Notes:  
 Fuel Consumption Rate = Horsepower x Load Factor x Fuel Consumption Factor  
 Where:  
 Fuel Consumption Factor for a diesel engine is 0.04 gallons per horsepower per hour (gal/hp/hr) and a gasoline engine is 0.06 gal/hp/hr.  
 Source: Refer to CalEEMod outputs for construction information.

Canon Serrano Construction Energy Usage

Worker Trips									
Phase	Phase Length (days)	#	# Worker Trips	Worker Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption		
Demolition		40	20	14.7		294			
Grading		40	20	14.7		294			
Paving		50	25	14.7		367.5			
<b>38,369,144.6</b>									
VENDOR TRIPS									
Phase	Phase Length (days)	#	# Vendor Trips	Vendor Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption		
Demolition		40	0	6.9		0			
Grading		40	0	6.9		0			
Paving		50	0	6.9		0			
<b>0</b>									
HAULING TRIPS									
Phase	Phase Length (days)	#	# Hauling Trips	Hauling Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption		
Demolition		40	0	20		0			
Grading		40	363	20		7260			
Paving		50	0	20		0			
									<b>1269,401,251</b>
<b>TOTAL OFF-SITE MOBILE GALLONS CONSUMED DURING CONSTRUCTION</b>									<b>1,307,777</b>

