

Appendix A:

Air Quality/Greenhouse Gas Data

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Third Street Storm Drain Project - South Coast Air Basin, Annual

Third Street Storm Drain Project

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Storm drain project. Modeling for construction emissions only.

Construction Phase - Anticipated construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Total length of pipe is 5,294 feet.

Vehicle Trips - No operational trips for a storm drain project.

Woodstoves - Storm drain project.

Construction Off-road Equipment Mitigation - Per SCAQMD rules.

Area Mitigation -

Energy Mitigation - Current code is 30% (non-residential) more efficient than CalEEMod baseline per CEC.

Water Mitigation -

Waste Mitigation -

On-road Fugitive Dust - A portion of the project site is unpaved along Third Street.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstructionPhase	NumDays	100.00	133.00
tblConstructionPhase	NumDays	2.00	23.00
tblConstructionPhase	NumDays	5.00	16.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	0.10	0.00
tblFireplaces	NumberWood	0.05	0.00
tblGrading	MaterialExported	0.00	19,140.00
tblGrading	MaterialImported	0.00	8,670.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	0.05	0.00

tblWoodstoves	NumberNoncatalytic	0.05	0.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1236	1.5338	0.7930	2.1100e-003	0.8780	0.0730	0.9509	0.0960	0.0676	0.1636	0.0000	200.9153	200.9153	0.0343	0.0000	201.7729
Maximum	0.1236	1.5338	0.7930	2.1100e-003	0.8780	0.0730	0.9509	0.0960	0.0676	0.1636	0.0000	200.9153	200.9153	0.0343	0.0000	201.7729

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1236	1.5338	0.7930	2.1100e-003	0.8730	0.0730	0.9460	0.0933	0.0676	0.1609	0.0000	200.9151	200.9151	0.0343	0.0000	201.7728
Maximum	0.1236	1.5338	0.7930	2.1100e-003	0.8730	0.0730	0.9460	0.0933	0.0676	0.1609	0.0000	200.9151	200.9151	0.0343	0.0000	201.7728

	ROG	NOx	CO	SO2	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	0.56	0.00	0.52	2.83	0.00	1.66	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-3-2017	7-2-2017	0.8954	0.8954
2	7-3-2017	9-30-2017	0.4513	0.4513
		Highest	0.8954	0.8954

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	7.3800e-003	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173
Energy	2.0000e-004	1.7100e-003	7.3000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	4.9657	4.9657	1.6000e-004	6.0000e-005	4.9882
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	0.2497	0.0000	0.2497	0.0148	0.0000	0.6186
Water						0.0000	0.0000		0.0000	0.0000	0.0207	0.4157	0.4364	2.1400e-003	5.0000e-005	0.5059
Total	7.5800e-003	1.8300e-003	0.0111	1.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	2.0000e-004	2.0000e-004	0.2704	5.3983	5.6687	0.0171	1.1000e-004	6.1299

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	7.3800e-003	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173

Energy	1.5000e-004	1.2800e-003	5.5000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	4.3649	4.3649	1.5000e-004	5.0000e-005	4.3840
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	0.1248	0.0000	0.1248	7.3800e-003	0.0000	0.3093
Water						0.0000	0.0000		0.0000	0.0000	0.0165	0.3528	0.3693	1.7100e-003	4.0000e-005	0.4250
Total	7.5300e-003	1.4000e-003	0.0109	1.0000e-005	0.0000	1.6000e-004	1.6000e-004	0.0000	1.6000e-004	1.6000e-004	0.1414	4.7345	4.8759	9.2600e-003	9.0000e-005	5.1356

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.66	23.50	1.62	0.00	0.00	20.00	20.00	0.00	20.00	20.00	47.70	12.30	13.98	45.78	18.18	16.22

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/3/2017	5/3/2017	5	23	
2	Building Construction	Building Construction	5/4/2017	11/6/2017	5	133	
3	Paving	Paving	11/7/2017	11/28/2017	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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
Building Construction	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.6600e-003	0.0000	8.6600e-003	4.7600e-003	0.0000	4.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.1207	0.0911	1.4000e-004		8.4200e-003	8.4200e-003		8.0200e-003	8.0200e-003	0.0000	12.3033	12.3033	2.4200e-003	0.0000	12.3638

Total	0.0139	0.1207	0.0911	1.4000e-004	8.6600e-003	8.4200e-003	0.0171	4.7600e-003	8.0200e-003	0.0128	0.0000	12.3033	12.3033	2.4200e-003	0.0000	12.3638
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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	0.0145	0.4835	0.0927	1.1000e-003	0.7640	2.5600e-003	0.7665	0.0803	2.4500e-003	0.0828	0.0000	107.5925	107.5925	8.0400e-003	0.0000	107.7935
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	6.9000e-004	5.7000e-004	6.1300e-003	1.0000e-005	0.0468	1.0000e-005	0.0468	4.8700e-003	1.0000e-005	4.8800e-003	0.0000	1.2464	1.2464	5.0000e-005	0.0000	1.2476
Total	0.0152	0.4841	0.0988	1.1100e-003	0.8107	2.5700e-003	0.8133	0.0852	2.4600e-003	0.0876	0.0000	108.8389	108.8389	8.0900e-003	0.0000	109.0411

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7000e-003	0.0000	3.7000e-003	2.0300e-003	0.0000	2.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0139	0.1207	0.0911	1.4000e-004		8.4200e-003	8.4200e-003		8.0200e-003	8.0200e-003	0.0000	12.3033	12.3033	2.4200e-003	0.0000	12.3637
Total	0.0139	0.1207	0.0911	1.4000e-004	3.7000e-003	8.4200e-003	0.0121	2.0300e-003	8.0200e-003	0.0101	0.0000	12.3033	12.3033	2.4200e-003	0.0000	12.3637

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	0.0145	0.4835	0.0927	1.1000e-003	0.7640	2.5600e-003	0.7665	0.0803	2.4500e-003	0.0828	0.0000	107.5925	107.5925	8.0400e-003	0.0000	107.7935
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	6.9000e-004	5.7000e-004	6.1300e-003	1.0000e-005	0.0468	1.0000e-005	0.0468	4.8700e-003	1.0000e-005	4.8800e-003	0.0000	1.2464	1.2464	5.0000e-005	0.0000	1.2476
Total	0.0152	0.4841	0.0988	1.1100e-003	0.8107	2.5700e-003	0.8133	0.0852	2.4600e-003	0.0876	0.0000	108.8389	108.8389	8.0900e-003	0.0000	109.0411

3.3 Building Construction - 2017

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	0.0852	0.8485	0.5367	7.6000e-004		0.0571	0.0571		0.0526	0.0526	0.0000	70.3372	70.3372	0.0216	0.0000	70.8759
Total	0.0852	0.8485	0.5367	7.6000e-004		0.0571	0.0571		0.0526	0.0526	0.0000	70.3372	70.3372	0.0216	0.0000	70.8759

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					

[illegible]

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	0.0852	0.8485	0.5367	7.6000e-004		0.0571	0.0571		0.0526	0.0526	0.0000	70.3371	70.3371	0.0216	0.0000	70.8759
Total	0.0852	0.8485	0.5367	7.6000e-004		0.0571	0.0571		0.0526	0.0526	0.0000	70.3371	70.3371	0.0216	0.0000	70.8759

Mitigated Construction Off-Site

[illegible]

Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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3.4 Paving - 2017

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	8.4300e-003	0.0798	0.0587	9.0000e-005		4.8700e-003	4.8700e-003		4.5100e-003	4.5100e-003	0.0000	7.8751	7.8751	2.1900e-003	0.0000	7.9299
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.4300e-003	0.0798	0.0587	9.0000e-005		4.8700e-003	4.8700e-003		4.5100e-003	4.5100e-003	0.0000	7.8751	7.8751	2.1900e-003	0.0000	7.9299

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	8.6000e-004	7.2000e-004	7.6800e-003	2.0000e-005	0.0586	1.0000e-005	0.0586	6.1000e-003	1.0000e-005	6.1100e-003	0.0000	1.5608	1.5608	6.0000e-005	0.0000	1.5622
Total	8.6000e-004	7.2000e-004	7.6800e-003	2.0000e-005	0.0586	1.0000e-005	0.0586	6.1000e-003	1.0000e-005	6.1100e-003	0.0000	1.5608	1.5608	6.0000e-005	0.0000	1.5622

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	8.4300e-003	0.0798	0.0587	9.0000e-005		4.8700e-003	4.8700e-003		4.5100e-003	4.5100e-003	0.0000	7.8751	7.8751	2.1900e-003	0.0000	7.9299
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.4300e-003	0.0798	0.0587	9.0000e-005		4.8700e-003	4.8700e-003		4.5100e-003	4.5100e-003	0.0000	7.8751	7.8751	2.1900e-003	0.0000	7.9299

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	8.6000e-004	7.2000e-004	7.6800e-003	2.0000e-005	0.0586	1.0000e-005	0.0586	6.1000e-003	1.0000e-005	6.1100e-003	0.0000	1.5608	1.5608	6.0000e-005	0.0000	1.5622
Total	8.6000e-004	7.2000e-004	7.6800e-003	2.0000e-005	0.0586	1.0000e-005	0.0586	6.1000e-003	1.0000e-005	6.1100e-003	0.0000	1.5608	1.5608	6.0000e-005	0.0000	1.5622

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	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	2.8815	2.8815	1.2000e-004	2.0000e-005	2.8918
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.9845	2.9845	1.2000e-004	3.0000e-005	2.9952
NaturalGas Mitigated	1.5000e-004	1.2800e-003	5.5000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4834	1.4834	3.0000e-005	3.0000e-005	1.4922
NaturalGas Unmitigated	2.0000e-004	1.7100e-003	7.3000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9812	1.9812	4.0000e-005	4.0000e-005	1.9930

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					
Single Family Housing	37126.4	2.0000e-004	1.7100e-003	7.3000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9812	1.9812	4.0000e-005	4.0000e-005	1.9930
Total		2.0000e-004	1.7100e-003	7.3000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9812	1.9812	4.0000e-005	4.0000e-005	1.9930

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	tons/yr										MT/yr					
Single Family Housing	27797.5	1.5000e-004	1.2800e-003	5.5000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4834	1.4834	3.0000e-005	3.0000e-005	1.4922
Total		1.5000e-004	1.2800e-003	5.5000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4834	1.4834	3.0000e-005	3.0000e-005	1.4922

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	9367.02	2.9845	1.2000e-004	3.0000e-005	2.9952
Total		2.9845	1.2000e-004	3.0000e-005	2.9952

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	9043.69	2.8815	1.2000e-004	2.0000e-005	2.8918
Total		2.8815	1.2000e-004	2.0000e-005	2.8918

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	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	7.3800e-003	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173
Unmitigated	7.3800e-003	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173

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	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173
Total	7.3800e-003	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173

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	5.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.5000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.2000e-004	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173
Total	7.3800e-003	1.2000e-004	0.0104	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.3693	1.7100e-003	4.0000e-005	0.4250
Unmitigated	0.4364	2.1400e-003	5.0000e-005	0.5059

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.065154 / 0.0410754	0.4364	2.1400e-003	5.0000e-005	0.5059
Total		0.4364	2.1400e-003	5.0000e-005	0.5059

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
--	--------------------	-----------	-----	-----	------

Land Use	Mgal	MT/yr			
Single Family Housing	0.0521232 / 0.0005600	0.3693	1.7100e-003	4.0000e-005	0.4250
Total		0.3693	1.7100e-003	4.0000e-005	0.4250

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1248	7.3800e-003	0.0000	0.3093
Unmitigated	0.2497	0.0148	0.0000	0.6186

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Single Family Housing	1.23	0.2497	0.0148	0.0000	0.6186
Total		0.2497	0.0148	0.0000	0.6186

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	0.615	0.1248	7.3800e-003	0.0000	0.3093
Total		0.1248	7.3800e-003	0.0000	0.3093

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

Third Street Storm Drain Project - South Coast Air Basin, Summer

Third Street Storm Drain Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Storm drain project. Modeling for construction emissions only.

Construction Phase - Anticipated construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Total length of pipe is 5,294 feet.

Vehicle Trips - No operational trips for a storm drain project.

Woodstoves - Storm drain project.

Construction Off-road Equipment Mitigation - Per SCAQMD rules.

Area Mitigation -

Energy Mitigation - Current code is 30% (non-residential) more efficient than CalEEMod baseline per CEC.

Water Mitigation -

Waste Mitigation -

On-road Fugitive Dust - A portion of the project site is unpaved along Third Street.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstructionPhase	NumDays	100.00	133.00
tblConstructionPhase	NumDays	2.00	23.00
tblConstructionPhase	NumDays	5.00	16.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	0.10	0.00
tblFireplaces	NumberWood	0.05	0.00
tblGrading	MaterialExported	0.00	19,140.00
tblGrading	MaterialImported	0.00	8,670.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	0.05	0.00

tblWoodstoves	NumberNoncatalytic	0.05	0.00
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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5181	51.1797	16.2870	0.1094	77.6308	0.9535	78.5843	8.4627	0.9099	9.3726	0.0000	11,687.8229	11,687.8229	0.9932	0.0000	11,712.6532
Maximum	2.5181	51.1797	16.2870	0.1094	77.6308	0.9535	78.5843	8.4627	0.9099	9.3726	0.0000	11,687.8229	11,687.8229	0.9932	0.0000	11,712.6532

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5181	51.1797	16.2870	0.1094	77.1999	0.9535	78.1533	8.2258	0.9099	9.1357	0.0000	11,687.8229	11,687.8229	0.9932	0.0000	11,712.6532
Maximum	2.5181	51.1797	16.2870	0.1094	77.1999	0.9535	78.1533	8.2258	0.9099	9.1357	0.0000	11,687.8229	11,687.8229	0.9932	0.0000	11,712.6532

	ROG	NOx	CO	SO2	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	0.56	0.00	0.55	2.80	0.00	2.53	0.00	0.00	0.00	0.00	0.00	0.00

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	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522
Energy	1.1000e-003	9.3700e-003	3.9900e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004		11.9666	11.9666	2.3000e-004	2.2000e-004	12.0377
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
Total	0.0424	0.0103	0.0869	6.0000e-005	0.0000	1.2100e-003	1.2100e-003	0.0000	1.2100e-003	1.2100e-003	0.0000	12.1152	12.1152	3.8000e-004	2.2000e-004	12.1899

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	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522
Energy	8.2000e-004	7.0200e-003	2.9900e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004		8.9597	8.9597	1.7000e-004	1.6000e-004	9.0130
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
Total	0.0421	7.9800e-003	0.0859	4.0000e-005	0.0000	1.0200e-003	1.0200e-003	0.0000	1.0200e-003	1.0200e-003	0.0000	9.1083	9.1083	3.2000e-004	1.6000e-004	9.1652

	ROG	NOx	CO	SO2	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	0.66	22.75	1.15	33.33	0.00	15.70	15.70	0.00	15.70	15.70	0.00	24.82	24.82	15.79	27.27	24.81

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/3/2017	5/3/2017	5	23	
2	Building Construction	Building Construction	5/4/2017	11/6/2017	5	133	
3	Paving	Paving	11/7/2017	11/28/2017	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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
Building Construction	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2017

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					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.2100	10.4978	7.9182	0.0120		0.7318	0.7318		0.6978	0.6978		1,179.3075	1,179.3075	0.2319		1,185.1047
Total	1.2100	10.4978	7.9182	0.0120	0.7528	0.7318	1.4845	0.4138	0.6978	1.1115		1,179.3075	1,179.3075	0.2319		1,185.1047

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
Hauling	1.2481	40.6376	7.8006	0.0962	72.4415	0.2208	72.6623	7.5880	0.2112	7.7993		10,383.1475	10,383.1475	0.7566	10,402.0622
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	0.0601	0.0442	0.5682	1.2600e-003	4.4366	9.3000e-004	4.4375	0.4609	8.6000e-004	0.4618		125.3679	125.3679	4.7300e-003	125.4862
Total	1.3082	40.6818	8.3688	0.0974	76.8780	0.2217	77.0998	8.0489	0.2121	8.2610		10,508.5154	10,508.5154	0.7613	10,527.5485

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					0.3218	0.0000	0.3218	0.1769	0.0000	0.1769			0.0000			0.0000
Off-Road	1.2100	10.4978	7.9182	0.0120		0.7318	0.7318		0.6978	0.6978	0.0000	1,179.3075	1,179.3075	0.2319		1,185.1047
Total	1.2100	10.4978	7.9182	0.0120	0.3218	0.7318	1.0536	0.1769	0.6978	0.8746	0.0000	1,179.3075	1,179.3075	0.2319		1,185.1047

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	1.2481	40.6376	7.8006	0.0962	72.4415	0.2208	72.6623	7.5880	0.2112	7.7993		10,383.1475	10,383.1475	0.7566		10,402.0622
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	0.0601	0.0442	0.5682	1.2600e-003	4.4366	9.3000e-004	4.4375	0.4609	8.6000e-004	0.4618		125.3679	125.3679	4.7300e-003		125.4862
Total	1.3082	40.6818	8.3688	0.0974	76.8780	0.2217	77.0998	8.0489	0.2121	8.2610		10,508.5154	10,508.5154	0.7613		10,527.5485

3.3 Building Construction - 2017

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	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904		1,165.9164	1,165.9164	0.3572		1,174.8473
Total	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904		1,165.9164	1,165.9164	0.3572		1,174.8473

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904	0.0000	1,165.9164	1,165.9164	0.3572		1,174.8473
Total	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904	0.0000	1,165.9164	1,165.9164	0.3572		1,174.8473

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Paving - 2017

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
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Category	lb/day										lb/day				
Off-Road	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	1,085.1071	1,085.1071	0.3018		1,092.6515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Total	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	1,085.1071	1,085.1071	0.3018		1,092.6515

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	0.1081	0.0796	1.0228	2.2700e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		225.6622	225.6622	8.5200e-003		225.8752
Total	0.1081	0.0796	1.0228	2.2700e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		225.6622	225.6622	8.5200e-003		225.8752

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	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	0.0000	1,085.1071	1,085.1071	0.3018		1,092.6515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Total	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	0.0000	1,085.1071	1,085.1071	0.3018		1,092.6515
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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	0.1081	0.0796	1.0228	2.2700e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		225.6622	225.6622	8.5200e-003		225.8752
Total	0.1081	0.0796	1.0228	2.2700e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		225.6622	225.6622	8.5200e-003		225.8752

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	8.2000e-004	7.0200e-003	2.9900e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004		8.9597	8.9597	1.7000e-004	1.6000e-004	9.0130

NaturalGas Unmitigated	1.1000e- 003	9.3700e- 003	3.9900e- 003	6.0000e- 005		7.6000e- 004	7.6000e- 004		7.6000e- 004	7.6000e- 004		11.9666	11.9666	2.3000e- 004	2.2000e- 004	12.0377
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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					
Single Family Housing	101.716	1.1000e- 003	9.3700e- 003	3.9900e- 003	6.0000e- 005		7.6000e- 004	7.6000e- 004		7.6000e- 004	7.6000e- 004		11.9666	11.9666	2.3000e- 004	2.2000e- 004	12.0377
Total		1.1000e- 003	9.3700e- 003	3.9900e- 003	6.0000e- 005		7.6000e- 004	7.6000e- 004		7.6000e- 004	7.6000e- 004		11.9666	11.9666	2.3000e- 004	2.2000e- 004	12.0377

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					
Single Family Housing	0.0761575	8.2000e- 004	7.0200e- 003	2.9900e- 003	4.0000e- 005		5.7000e- 004	5.7000e- 004		5.7000e- 004	5.7000e- 004		8.9597	8.9597	1.7000e- 004	1.6000e- 004	9.0130
Total		8.2000e- 004	7.0200e- 003	2.9900e- 003	4.0000e- 005		5.7000e- 004	5.7000e- 004		5.7000e- 004	5.7000e- 004		8.9597	8.9597	1.7000e- 004	1.6000e- 004	9.0130

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	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	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522
Unmitigated	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522

Unmitigated

[illegible]

Landscaping	2.5400e-003	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.1486	0.1486	1.5000e-004		0.1522
Total	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522

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	3.0900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0356					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5400e-003	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.1486	0.1486	1.5000e-004		0.1522
Total	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

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

Third Street Storm Drain Project - South Coast Air Basin, Winter

Third Street Storm Drain Project**South Coast Air Basin, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Storm drain project. Modeling for construction emissions only.

Construction Phase - Anticipated construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - Total length of pipe is 5,294 feet.

Vehicle Trips - No operational trips for a storm drain project.

Woodstoves - Storm drain project.

Construction Off-road Equipment Mitigation - Per SCAQMD rules.

Area Mitigation -

Energy Mitigation - Current code is 30% (non-residential) more efficient than CalEEMod baseline per CEC.

Water Mitigation -

Waste Mitigation -

On-road Fugitive Dust - A portion of the project site is unpaved along Third Street.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstructionPhase	NumDays	100.00	133.00
tblConstructionPhase	NumDays	2.00	23.00
tblConstructionPhase	NumDays	5.00	16.00
tblFireplaces	NumberGas	0.85	0.00
tblFireplaces	NumberNoFireplace	0.10	0.00
tblFireplaces	NumberWood	0.05	0.00
tblGrading	MaterialExported	0.00	19,140.00
tblGrading	MaterialImported	0.00	8,670.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWoodstoves	NumberCatalytic	0.05	0.00

tblWoodstoves	NumberNoncatalytic	0.05	0.00
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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5556	51.7984	16.8282	0.1078	77.6308	0.9570	78.5878	8.4627	0.9132	9.3759	0.0000	11,513.2531	11,513.2531	1.0246	0.0000	11,538.8673
Maximum	2.5556	51.7984	16.8282	0.1078	77.6308	0.9570	78.5878	8.4627	0.9132	9.3759	0.0000	11,513.2531	11,513.2531	1.0246	0.0000	11,538.8673

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.5556	51.7984	16.8282	0.1078	77.1999	0.9570	78.1568	8.2258	0.9132	9.1390	0.0000	11,513.2531	11,513.2531	1.0246	0.0000	11,538.8673
Maximum	2.5556	51.7984	16.8282	0.1078	77.1999	0.9570	78.1568	8.2258	0.9132	9.1390	0.0000	11,513.2531	11,513.2531	1.0246	0.0000	11,538.8673

	ROG	NOx	CO	SO2	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	0.56	0.00	0.55	2.80	0.00	2.53	0.00	0.00	0.00	0.00	0.00	0.00

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	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522
Energy	1.1000e-003	9.3700e-003	3.9900e-003	6.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004		11.9666	11.9666	2.3000e-004	2.2000e-004	12.0377
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
Total	0.0424	0.0103	0.0869	6.0000e-005	0.0000	1.2100e-003	1.2100e-003	0.0000	1.2100e-003	1.2100e-003	0.0000	12.1152	12.1152	3.8000e-004	2.2000e-004	12.1899

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	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522
Energy	8.2000e-004	7.0200e-003	2.9900e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004		8.9597	8.9597	1.7000e-004	1.6000e-004	9.0130
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
Total	0.0421	7.9800e-003	0.0859	4.0000e-005	0.0000	1.0200e-003	1.0200e-003	0.0000	1.0200e-003	1.0200e-003	0.0000	9.1083	9.1083	3.2000e-004	1.6000e-004	9.1652

	ROG	NOx	CO	SO2	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	0.66	22.75	1.15	33.33	0.00	15.70	15.70	0.00	15.70	15.70	0.00	24.82	24.82	15.79	27.27	24.81

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/3/2017	5/3/2017	5	23	
2	Building Construction	Building Construction	5/4/2017	11/6/2017	5	133	
3	Paving	Paving	11/7/2017	11/28/2017	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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
Building Construction	5	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2017

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					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.2100	10.4978	7.9182	0.0120		0.7318	0.7318		0.6978	0.6978		1,179.3075	1,179.3075	0.2319		1,185.1047
Total	1.2100	10.4978	7.9182	0.0120	0.7528	0.7318	1.4845	0.4138	0.6978	1.1115		1,179.3075	1,179.3075	0.2319		1,185.1047

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
Hauling	1.2798	41.2520	8.3897	0.0946	72.4415	0.2243	72.6658	7.5880	0.2146	7.8026		10,216.3217	10,216.3217	0.7882	10,236.0270
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	0.0658	0.0486	0.5203	1.1800e-003	4.4366	9.3000e-004	4.4375	0.4609	8.6000e-004	0.4618		117.6240	117.6240	4.4600e-003	117.7355
Total	1.3456	41.3006	8.9100	0.0958	76.8780	0.2252	77.1033	8.0489	0.2155	8.2644		10,333.9456	10,333.9456	0.7927	10,353.7626

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					0.3218	0.0000	0.3218	0.1769	0.0000	0.1769			0.0000			0.0000
Off-Road	1.2100	10.4978	7.9182	0.0120		0.7318	0.7318		0.6978	0.6978	0.0000	1,179.3075	1,179.3075	0.2319		1,185.1047
Total	1.2100	10.4978	7.9182	0.0120	0.3218	0.7318	1.0536	0.1769	0.6978	0.8746	0.0000	1,179.3075	1,179.3075	0.2319		1,185.1047

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	1.2798	41.2520	8.3897	0.0946	72.4415	0.2243	72.6658	7.5880	0.2146	7.8026		10,216.3217	10,216.3217	0.7882		10,236.0270
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	0.0658	0.0486	0.5203	1.1800e-003	4.4366	9.3000e-004	4.4375	0.4609	8.6000e-004	0.4618		117.6240	117.6240	4.4600e-003		117.7355
Total	1.3456	41.3006	8.9100	0.0958	76.8780	0.2252	77.1033	8.0489	0.2155	8.2644		10,333.9456	10,333.9456	0.7927		10,353.7626

3.3 Building Construction - 2017

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	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904		1,165.9164	1,165.9164	0.3572		1,174.8473
Total	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904		1,165.9164	1,165.9164	0.3572		1,174.8473

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904	0.0000	1,165.9164	1,165.9164	0.3572		1,174.8473
Total	1.2812	12.7589	8.0700	0.0114		0.8591	0.8591		0.7904	0.7904	0.0000	1,165.9164	1,165.9164	0.3572		1,174.8473

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Paving - 2017

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
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Category	lb/day										lb/day				
Off-Road	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	1,085.1071	1,085.1071	0.3018		1,092.6515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Total	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	1,085.1071	1,085.1071	0.3018		1,092.6515

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	0.1184	0.0875	0.9366	2.1300e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		211.7231	211.7231	8.0300e-003		211.9240
Total	0.1184	0.0875	0.9366	2.1300e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		211.7231	211.7231	8.0300e-003		211.9240

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	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	0.0000	1,085.1071	1,085.1071	0.3018		1,092.6515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Total	1.0532	9.9754	7.3425	0.0113		0.6087	0.6087		0.5636	0.5636	0.0000	1,085.1071	1,085.1071	0.3018		1,092.6515
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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	0.1184	0.0875	0.9366	2.1300e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		211.7231	211.7231	8.0300e-003		211.9240
Total	0.1184	0.0875	0.9366	2.1300e-003	7.9858	1.6700e-003	7.9875	0.8297	1.5400e-003	0.8312		211.7231	211.7231	8.0300e-003		211.9240

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.548893	0.044275	0.199565	0.124385	0.017503	0.005874	0.020174	0.028962	0.001990	0.002015	0.004673	0.000702	0.000989

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	8.2000e-004	7.0200e-003	2.9900e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004		8.9597	8.9597	1.7000e-004	1.6000e-004	9.0130

NaturalGas Unmitigated	1.1000e- 003	9.3700e- 003	3.9900e- 003	6.0000e- 005		7.6000e- 004	7.6000e- 004		7.6000e- 004	7.6000e- 004		11.9666	11.9666	2.3000e- 004	2.2000e- 004	12.0377
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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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					
Single Family Housing	101.716	1.1000e- 003	9.3700e- 003	3.9900e- 003	6.0000e- 005		7.6000e- 004	7.6000e- 004		7.6000e- 004	7.6000e- 004		11.9666	11.9666	2.3000e- 004	2.2000e- 004	12.0377
Total		1.1000e- 003	9.3700e- 003	3.9900e- 003	6.0000e- 005		7.6000e- 004	7.6000e- 004		7.6000e- 004	7.6000e- 004		11.9666	11.9666	2.3000e- 004	2.2000e- 004	12.0377

Mitigated

	NaturalGa s 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					
Single Family Housing	0.0761575	8.2000e- 004	7.0200e- 003	2.9900e- 003	4.0000e- 005		5.7000e- 004	5.7000e- 004		5.7000e- 004	5.7000e- 004		8.9597	8.9597	1.7000e- 004	1.6000e- 004	9.0130
Total		8.2000e- 004	7.0200e- 003	2.9900e- 003	4.0000e- 005		5.7000e- 004	5.7000e- 004		5.7000e- 004	5.7000e- 004		8.9597	8.9597	1.7000e- 004	1.6000e- 004	9.0130

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	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	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522
Unmitigated	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522

Unmitigated

[illegible]

Landscaping	2.5400e-003	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.1486	0.1486	1.5000e-004		0.1522
Total	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522

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	3.0900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0356					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5400e-003	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.1486	0.1486	1.5000e-004		0.1522
Total	0.0413	9.6000e-004	0.0829	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1486	0.1486	1.5000e-004	0.0000	0.1522

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

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
