

APPENDIX A
Air Quality/Greenhouse Gas Data

**Parenthetical CALEEMOD Assumptions
For: Chick-fil-A/In-N-Out 17th and Tustin
February 2017**

CONSTRUCTION

Demolition (2017)

- Demolish 440 square-foot structure.
- 23 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Concrete/Industrial Saws	8
1	Tractors/Loaders/Backhoes	8

Grading (2017)

- 814 cubic yards of balanced cut and fill on-site.
- 22 days.

Equipment:

Quantity	Type	Hours of Daily Operation
3	Tractors/Loaders/Backhoes	8

Building Construction (2017 - 2018)

- 200 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Rough Terrain Forklifts	8
1	Skid Steer Loaders	8
1	Tractors/Loaders/Backhoes	8

Paving (2017)

- 7 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Paving Equipment	8
1	Rubber Tired Loaders	8
1	Signal Boards	8
1	Surfacing Equipment	8

Architectural Coating (2017)

- 11 days.

Equipment:

Quantity	Type	Hours of Daily Operation
1	Air Compressors	6

17th-Tustin Chick-fil-A and In N Out - Orange County, Summer

**17th-Tustin Chick-fil-A and In N Out
Orange County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	5.58	1000sqft	1.66	5,577.00	0
Fast Food Restaurant with Drive Thru	4.27	1000sqft	1.66	4,267.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2017
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 - Project Characteristics

Land Use - Project Characteristics

Construction Phase - Per AQ construction questionnaire

Off-road Equipment -

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Trips and VMT - Balanced cut and fill on-site

Demolition -

Grading - Balanced cut and fill on-site, site acreage

Vehicle Trips - Per Traffic Impact Analysis

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Area Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	18.00	11.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	NumDays	18.00	7.00
tblGrading	AcresOfGrading	0.00	3.36
tblGrading	MaterialExported	0.00	814.00
tblGrading	MaterialImported	0.00	814.00
tblLandUse	BuildingSpaceSquareFeet	4,270.00	4,267.00
tblLandUse	BuildingSpaceSquareFeet	5,580.00	5,577.00
tblLandUse	LandUseSquareFeet	4,270.00	4,267.00
tblLandUse	LandUseSquareFeet	5,580.00	5,577.00
tblLandUse	LotAcreage	0.10	1.66
tblLandUse	LotAcreage	0.13	1.66
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblSolidWaste	SolidWasteGenerationRate	113.46	113.35
tblTripsAndVMT	HaulingTripLength	20.00	0.13
tblVehicleTrips	ST_TR	722.03	347.12
tblVehicleTrips	SU_TR	542.72	196.85
tblVehicleTrips	WD_TR	496.12	347.12
tblWater	IndoorWaterUseRate	2,989,807.07	2,986,771.73
tblWater	OutdoorWaterUseRate	190,838.75	190,645.00

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	3/1/2017	3/31/2017	5	23	
2	Grading	Grading	4/1/2017	5/2/2017	5	22	
3	Building Construction	Building Construction	5/3/2017	2/6/2018	5	200	
4	Paving	Paving	2/7/2018	2/15/2018	5	7	
5	Architectural Coating	Architectural Coating	2/16/2018	3/2/2018	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.36

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 14,766; Non-Residential Outdoor: 4,922; 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
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	0	6.00	80	0.38
Paving	Rubber Tired Loaders	1	8.00	203	0.36
Paving	Signal Boards	1	8.00	6	0.82

Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	5.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	102.00	14.70	6.90	0.13	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	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 Demolition - 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					0.0188	0.0000	0.0188	2.8500e-003	0.0000	2.8500e-003			0.0000			0.0000
Off-Road	0.8977	7.3051	6.1430	9.3700e-003		0.5355	0.5355		0.5172	0.5172		910.9296	910.9296	0.1497		914.6711
Total	0.8977	7.3051	6.1430	9.3700e-003	0.0188	0.5355	0.5544	2.8500e-003	0.5172	0.5201		910.9296	910.9296	0.1497		914.6711

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	8.8000e-004	0.0296	6.5600e-003	7.0000e-005	1.5100e-003	1.7000e-004	1.6800e-003	4.1000e-004	1.6000e-004	5.7000e-004		7.6440	7.6440	8.0000e-004		7.6641
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	0.0248	0.0174	0.2206	6.0000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		59.5688	59.5688	1.7300e-003		59.6121
Total	0.0257	0.0470	0.2272	6.7000e-004	0.0574	5.4000e-004	0.0579	0.0152	5.0000e-004	0.0157		67.2129	67.2129	2.5300e-003		67.2762

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9800e-003	0.0000	6.9800e-003	1.0600e-003	0.0000	1.0600e-003			0.0000			0.0000
Off-Road	0.8977	7.3051	6.1430	9.3700e-003		0.5355	0.5355		0.5172	0.5172	0.0000	910.9296	910.9296	0.1497		914.6711
Total	0.8977	7.3051	6.1430	9.3700e-003	6.9800e-003	0.5355	0.5425	1.0600e-003	0.5172	0.5183	0.0000	910.9296	910.9296	0.1497		914.6711

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	8.8000e-004	0.0296	6.5600e-003	7.0000e-005	1.5100e-003	1.7000e-004	1.6800e-003	4.1000e-004	1.6000e-004	5.7000e-004		7.6440	7.6440	8.0000e-004		7.6641
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	0.0248	0.0174	0.2206	6.0000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		59.5688	59.5688	1.7300e-003		59.6121
Total	0.0257	0.0470	0.2272	6.7000e-004	0.0574	5.4000e-004	0.0579	0.0152	5.0000e-004	0.0157		67.2129	67.2129	2.5300e-003		67.2762

3.3 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					0.1703	0.0000	0.1703	0.0188	0.0000	0.0188			0.0000			0.0000
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318		954.7948	954.7948	0.2926		962.1085
Total	0.9504	9.1316	7.1815	9.3300e-003	0.1703	0.6868	0.8571	0.0188	0.6318	0.6506		954.7948	954.7948	0.2926		962.1085

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	0.0104	0.4773	0.0786	4.4000e-004	6.2000e-004	5.8000e-004	1.2000e-003	1.8000e-004	5.5000e-004	7.3000e-004		48.5001	48.5001	0.0101		48.7524
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	0.0397	0.0278	0.3530	9.6000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.5000e-004	0.0243		95.3101	95.3101	2.7700e-003		95.3794
Total	0.0501	0.5051	0.4316	1.4000e-003	0.0900	1.1700e-003	0.0912	0.0239	1.1000e-003	0.0250		143.8102	143.8102	0.0129		144.1318

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					0.0631	0.0000	0.0631	6.9500e-003	0.0000	6.9500e-003			0.0000			0.0000
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318	0.0000	954.7948	954.7948	0.2926		962.1085
Total	0.9504	9.1316	7.1815	9.3300e-003	0.0631	0.6868	0.7499	6.9500e-003	0.6318	0.6388	0.0000	954.7948	954.7948	0.2926		962.1085

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	0.0104	0.4773	0.0786	4.4000e-004	6.2000e-004	5.8000e-004	1.2000e-003	1.8000e-004	5.5000e-004	7.3000e-004		48.5001	48.5001	0.0101		48.7524
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	0.0397	0.0278	0.3530	9.6000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.5000e-004	0.0243		95.3101	95.3101	2.7700e-003		95.3794
Total	0.0501	0.5051	0.4316	1.4000e-003	0.0900	1.1700e-003	0.0912	0.0239	1.1000e-003	0.0250		143.8102	143.8102	0.0129		144.1318

3.4 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	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974		881.7922	881.7922	0.2702		888.5467
Total	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974		881.7922	881.7922	0.2702		888.5467

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	9.2400e-003	0.2545	0.0704	5.1000e-004	0.0128	2.2200e-003	0.0150	3.6800e-003	2.1200e-003	5.8000e-003		55.0986	55.0986	4.9700e-003		55.2227
Worker	0.0198	0.0139	0.1765	4.8000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		47.6551	47.6551	1.3900e-003		47.6897
Total	0.0291	0.2684	0.2469	9.9000e-004	0.0575	2.5200e-003	0.0600	0.0155	2.3900e-003	0.0179		102.7537	102.7537	6.3600e-003		102.9124

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974	0.0000	881.7922	881.7922	0.2702		888.5467
Total	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974	0.0000	881.7922	881.7922	0.2702		888.5467

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	9.2400e-003	0.2545	0.0704	5.1000e-004	0.0128	2.2200e-003	0.0150	3.6800e-003	2.1200e-003	5.8000e-003		55.0986	55.0986	4.9700e-003		55.2227
Worker	0.0198	0.0139	0.1765	4.8000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		47.6551	47.6551	1.3900e-003		47.6897
Total	0.0291	0.2684	0.2469	9.9000e-004	0.0575	2.5200e-003	0.0600	0.0155	2.3900e-003	0.0179		102.7537	102.7537	6.3600e-003		102.9124

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142		867.1976	867.1976	0.2700		873.9469
Total	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142		867.1976	867.1976	0.2700		873.9469

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	8.1000e-003	0.2386	0.0640	5.1000e-004	0.0128	1.7700e-003	0.0145	3.6800e-003	1.6900e-003	5.3700e-003		54.8657	54.8657	4.7600e-003		54.9847
Worker	0.0179	0.0122	0.1571	4.6000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		46.2670	46.2670	1.2300e-003		46.2977
Total	0.0260	0.2508	0.2211	9.7000e-004	0.0575	2.0700e-003	0.0596	0.0155	1.9600e-003	0.0175		101.1327	101.1327	5.9900e-003		101.2824

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142	0.0000	867.1976	867.1976	0.2700		873.9468
Total	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142	0.0000	867.1976	867.1976	0.2700		873.9468

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	8.1000e-003	0.2386	0.0640	5.1000e-004	0.0128	1.7700e-003	0.0145	3.6800e-003	1.6900e-003	5.3700e-003		54.8657	54.8657	4.7600e-003		54.9847
Worker	0.0179	0.0122	0.1571	4.6000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		46.2670	46.2670	1.2300e-003		46.2977
Total	0.0260	0.2508	0.2211	9.7000e-004	0.0575	2.0700e-003	0.0596	0.0155	1.9600e-003	0.0175		101.1327	101.1327	5.9900e-003		101.2824

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972		1,767.0835	1,767.0835	0.5399		1,780.5806
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972		1,767.0835	1,767.0835	0.5399		1,780.5806

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	0.0448	0.0304	0.3928	1.1600e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		115.6676	115.6676	3.0600e-003		115.7441
Total	0.0448	0.0304	0.3928	1.1600e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		115.6676	115.6676	3.0600e-003		115.7441

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972	0.0000	1,767.0835	1,767.0835	0.5399		1,780.5806
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972	0.0000	1,767.0835	1,767.0835	0.5399		1,780.5806

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	0.0448	0.0304	0.3928	1.1600e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		115.6676	115.6676	3.0600e-003		115.7441
Total	0.0448	0.0304	0.3928	1.1600e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		115.6676	115.6676	3.0600e-003		115.7441

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	8.5944	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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	4.4800e-003	3.0400e-003	0.0393	1.2000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		11.5668	11.5668	3.1000e-004		11.5744
Total	4.4800e-003	3.0400e-003	0.0393	1.2000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		11.5668	11.5668	3.1000e-004		11.5744

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	8.5944	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

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	4.4800e-003	3.0400e-003	0.0393	1.2000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		11.5668	11.5668	3.1000e-004		11.5744
Total	4.4800e-003	3.0400e-003	0.0393	1.2000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		11.5668	11.5668	3.1000e-004		11.5744

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	10.7779	30.7459	88.4376	0.2072	8.7286	0.2681	8.9966	2.4778	0.2526	2.7304			20,950.5638	20,950.5638	1.2147		20,980.9299
Unmitigated	10.7779	30.7459	88.4376	0.2072	8.7286	0.2681	8.9966	2.4778	0.2526	2.7304			20,950.5638	20,950.5638	1.2147		20,980.9299

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,936.93	1,936.93	1098.42	1,912,339	1,912,339
Fast Food Restaurant with Drive Thru	1,482.20	1,482.20	840.55	1,463,385	1,463,385
Total	3,419.13	3,419.13	1,938.97	3,375,723	3,375,723

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.543066	0.045258	0.213197	0.125617	0.019254	0.005808	0.023323	0.014742	0.001554	0.001731	0.004738	0.000577	0.001134
Fast Food Restaurant with Drive Thru	0.543066	0.045258	0.213197	0.125617	0.019254	0.005808	0.023323	0.014742	0.001554	0.001731	0.004738	0.000577	0.001134

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522		824.0404	824.0404	0.0158	0.0151	828.9372
NaturalGas Unmitigated	0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522		824.0404	824.0404	0.0158	0.0151	828.9372

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					
Fast Food Restaurant with Drive Thru	3968.23	0.0428	0.3890	0.3268	2.3300e-003		0.0296	0.0296		0.0296	0.0296		466.8502	466.8502	8.9500e-003	8.5600e-003	469.6244
Fast Food Restaurant with Drive Thru	3036.12	0.0327	0.2977	0.2500	1.7900e-003		0.0226	0.0226		0.0226	0.0226		357.1902	357.1902	6.8500e-003	6.5500e-003	359.3128
Total		0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522		824.0404	824.0404	0.0158	0.0151	828.9372

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						
Fast Food Restaurant with Drive Thru	3.03612	0.0327	0.2977	0.2500	1.7900e-003		0.0226	0.0226		0.0226	0.0226			357.1902	357.1902	6.8500e-003	6.5500e-003	359.3128
Fast Food Restaurant with Drive Thru	3.96823	0.0428	0.3890	0.3268	2.3300e-003		0.0296	0.0296		0.0296	0.0296			466.8502	466.8502	8.9500e-003	8.5600e-003	469.6244
Total		0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522			824.0404	824.0404	0.0158	0.0151	828.9372

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1600e-003	2.1600e-003	1.0000e-005	2.3100e-003
Unmitigated	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1600e-003	2.1600e-003	1.0000e-005	2.3100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1949					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003
Total	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1949					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003
Total	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003

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

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
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

17th-Tustin Chick-fil-A and In N Out - Orange County, Winter

**17th-Tustin Chick-fil-A and In N Out
Orange County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	5.58	1000sqft	1.66	5,577.00	0
Fast Food Restaurant with Drive Thru	4.27	1000sqft	1.66	4,267.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2017
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 - Project Characteristics

Land Use - Project Characteristics

Construction Phase - Per AQ construction questionnaire

Off-road Equipment -

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Trips and VMT - Balanced cut and fill on-site

Demolition -

Grading - Balanced cut and fill on-site, site acreage

Vehicle Trips - Per Traffic Impact Analysis

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Area Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	18.00	11.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	NumDays	18.00	7.00
tblGrading	AcresOfGrading	0.00	3.36
tblGrading	MaterialExported	0.00	814.00
tblGrading	MaterialImported	0.00	814.00
tblLandUse	BuildingSpaceSquareFeet	4,270.00	4,267.00
tblLandUse	BuildingSpaceSquareFeet	5,580.00	5,577.00
tblLandUse	LandUseSquareFeet	4,270.00	4,267.00
tblLandUse	LandUseSquareFeet	5,580.00	5,577.00
tblLandUse	LotAcreage	0.10	1.66
tblLandUse	LotAcreage	0.13	1.66
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblSolidWaste	SolidWasteGenerationRate	113.46	113.35
tblTripsAndVMT	HaulingTripLength	20.00	0.13
tblVehicleTrips	ST_TR	722.03	347.12
tblVehicleTrips	SU_TR	542.72	196.85
tblVehicleTrips	WD_TR	496.12	347.12
tblWater	IndoorWaterUseRate	2,989,807.07	2,986,771.73
tblWater	OutdoorWaterUseRate	190,838.75	190,645.00

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	3/1/2017	3/31/2017	5	23	
2	Grading	Grading	4/1/2017	5/2/2017	5	22	
3	Building Construction	Building Construction	5/3/2017	2/6/2018	5	200	
4	Paving	Paving	2/7/2018	2/15/2018	5	7	
5	Architectural Coating	Architectural Coating	2/16/2018	3/2/2018	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.36

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 14,766; Non-Residential Outdoor: 4,922; 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
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	0	6.00	80	0.38
Paving	Rubber Tired Loaders	1	8.00	203	0.36
Paving	Signal Boards	1	8.00	6	0.82

Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	5.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	102.00	14.70	6.90	0.13	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	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 Demolition - 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					0.0188	0.0000	0.0188	2.8500e-003	0.0000	2.8500e-003			0.0000			0.0000
Off-Road	0.8977	7.3051	6.1430	9.3700e-003		0.5355	0.5355		0.5172	0.5172		910.9296	910.9296	0.1497		914.6711
Total	0.8977	7.3051	6.1430	9.3700e-003	0.0188	0.5355	0.5544	2.8500e-003	0.5172	0.5201		910.9296	910.9296	0.1497		914.6711

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	9.0000e-004	0.0301	6.9900e-003	7.0000e-005	1.5100e-003	1.7000e-004	1.6800e-003	4.1000e-004	1.6000e-004	5.8000e-004		7.5356	7.5356	8.3000e-004		7.5562
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	0.0279	0.0191	0.2056	5.7000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.3856	56.3856	1.6500e-003		56.4268
Total	0.0288	0.0491	0.2126	6.4000e-004	0.0574	5.4000e-004	0.0579	0.0152	5.0000e-004	0.0157		63.9211	63.9211	2.4800e-003		63.9830

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9800e-003	0.0000	6.9800e-003	1.0600e-003	0.0000	1.0600e-003			0.0000			0.0000
Off-Road	0.8977	7.3051	6.1430	9.3700e-003		0.5355	0.5355		0.5172	0.5172	0.0000	910.9296	910.9296	0.1497		914.6711
Total	0.8977	7.3051	6.1430	9.3700e-003	6.9800e-003	0.5355	0.5425	1.0600e-003	0.5172	0.5183	0.0000	910.9296	910.9296	0.1497		914.6711

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	9.0000e-004	0.0301	6.9900e-003	7.0000e-005	1.5100e-003	1.7000e-004	1.6800e-003	4.1000e-004	1.6000e-004	5.8000e-004		7.5356	7.5356	8.3000e-004		7.5562
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	0.0279	0.0191	0.2056	5.7000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.3856	56.3856	1.6500e-003		56.4268
Total	0.0288	0.0491	0.2126	6.4000e-004	0.0574	5.4000e-004	0.0579	0.0152	5.0000e-004	0.0157		63.9211	63.9211	2.4800e-003		63.9830

3.3 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					0.1703	0.0000	0.1703	0.0188	0.0000	0.0188			0.0000			0.0000
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318		954.7948	954.7948	0.2926		962.1085
Total	0.9504	9.1316	7.1815	9.3300e-003	0.1703	0.6868	0.8571	0.0188	0.6318	0.6506		954.7948	954.7948	0.2926		962.1085

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	0.0116	0.4586	0.1023	3.9000e-004	6.2000e-004	7.4000e-004	1.3600e-003	1.8000e-004	7.0000e-004	8.8000e-004		42.7163	42.7163	0.0113		42.9992
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	0.0447	0.0305	0.3290	9.1000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.2169	90.2169	2.6400e-003		90.2829
Total	0.0562	0.4891	0.4313	1.3000e-003	0.0900	1.3300e-003	0.0914	0.0239	1.2500e-003	0.0251		132.9332	132.9332	0.0140		133.2821

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					0.0631	0.0000	0.0631	6.9500e-003	0.0000	6.9500e-003			0.0000			0.0000
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318	0.0000	954.7948	954.7948	0.2926		962.1085
Total	0.9504	9.1316	7.1815	9.3300e-003	0.0631	0.6868	0.7499	6.9500e-003	0.6318	0.6388	0.0000	954.7948	954.7948	0.2926		962.1085

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	0.0116	0.4586	0.1023	3.9000e-004	6.2000e-004	7.4000e-004	1.3600e-003	1.8000e-004	7.0000e-004	8.8000e-004		42.7163	42.7163	0.0113		42.9992
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	0.0447	0.0305	0.3290	9.1000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.5000e-004	0.0243		90.2169	90.2169	2.6400e-003		90.2829
Total	0.0562	0.4891	0.4313	1.3000e-003	0.0900	1.3300e-003	0.0914	0.0239	1.2500e-003	0.0251		132.9332	132.9332	0.0140		133.2821

3.4 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	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974		881.7922	881.7922	0.2702		888.5467
Total	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974		881.7922	881.7922	0.2702		888.5467

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	9.6300e-003	0.2552	0.0771	5.0000e-004	0.0128	2.2600e-003	0.0150	3.6800e-003	2.1600e-003	5.8400e-003		53.8081	53.8081	5.2400e-003		53.9390
Worker	0.0223	0.0153	0.1645	4.5000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		45.1085	45.1085	1.3200e-003		45.1415
Total	0.0320	0.2705	0.2416	9.5000e-004	0.0575	2.5600e-003	0.0601	0.0155	2.4300e-003	0.0180		98.9165	98.9165	6.5600e-003		99.0805

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974	0.0000	881.7922	881.7922	0.2702		888.5467
Total	0.6162	6.8488	6.1421	8.6200e-003		0.4320	0.4320		0.3974	0.3974	0.0000	881.7922	881.7922	0.2702		888.5467

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	9.6300e-003	0.2552	0.0771	5.0000e-004	0.0128	2.2600e-003	0.0150	3.6800e-003	2.1600e-003	5.8400e-003		53.8081	53.8081	5.2400e-003		53.9390
Worker	0.0223	0.0153	0.1645	4.5000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		45.1085	45.1085	1.3200e-003		45.1415
Total	0.0320	0.2705	0.2416	9.5000e-004	0.0575	2.5600e-003	0.0601	0.0155	2.4300e-003	0.0180		98.9165	98.9165	6.5600e-003		99.0805

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142		867.1976	867.1976	0.2700		873.9469
Total	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142		867.1976	867.1976	0.2700		873.9469

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	8.4500e-003	0.2390	0.0703	4.9000e-004	0.0128	1.8000e-003	0.0146	3.6800e-003	1.7200e-003	5.4000e-003		53.5430	53.5430	5.0200e-003		53.6684
Worker	0.0202	0.0134	0.1459	4.4000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		43.7919	43.7919	1.1600e-003		43.8210
Total	0.0286	0.2524	0.2162	9.3000e-004	0.0575	2.1000e-003	0.0596	0.0155	1.9900e-003	0.0175		97.3348	97.3348	6.1800e-003		97.4894

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142	0.0000	867.1976	867.1976	0.2700		873.9468
Total	0.5144	5.8499	6.0356	8.6200e-003		0.3415	0.3415		0.3142	0.3142	0.0000	867.1976	867.1976	0.2700		873.9468

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	8.4500e-003	0.2390	0.0703	4.9000e-004	0.0128	1.8000e-003	0.0146	3.6800e-003	1.7200e-003	5.4000e-003		53.5430	53.5430	5.0200e-003		53.6684
Worker	0.0202	0.0134	0.1459	4.4000e-004	0.0447	3.0000e-004	0.0450	0.0119	2.7000e-004	0.0121		43.7919	43.7919	1.1600e-003		43.8210
Total	0.0286	0.2524	0.2162	9.3000e-004	0.0575	2.1000e-003	0.0596	0.0155	1.9900e-003	0.0175		97.3348	97.3348	6.1800e-003		97.4894

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972		1,767.0835	1,767.0835	0.5399		1,780.5806
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972		1,767.0835	1,767.0835	0.5399		1,780.5806

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	0.0504	0.0335	0.3647	1.1000e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		109.4797	109.4797	2.9100e-003		109.5525
Total	0.0504	0.0335	0.3647	1.1000e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		109.4797	109.4797	2.9100e-003		109.5525

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972	0.0000	1,767.0835	1,767.0835	0.5399		1,780.5806
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9440	11.4097	6.2781	0.0178		0.4306	0.4306		0.3972	0.3972	0.0000	1,767.0835	1,767.0835	0.5399		1,780.5806

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	0.0504	0.0335	0.3647	1.1000e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		109.4797	109.4797	2.9100e-003		109.5525
Total	0.0504	0.0335	0.3647	1.1000e-003	0.1118	7.4000e-004	0.1125	0.0296	6.8000e-004	0.0303		109.4797	109.4797	2.9100e-003		109.5525

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	8.5944	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

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	5.0400e-003	3.3500e-003	0.0365	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.9480	10.9480	2.9000e-004		10.9553
Total	5.0400e-003	3.3500e-003	0.0365	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.9480	10.9480	2.9000e-004		10.9553

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	8.5944	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

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	5.0400e-003	3.3500e-003	0.0365	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.9480	10.9480	2.9000e-004		10.9553
Total	5.0400e-003	3.3500e-003	0.0365	1.1000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.9480	10.9480	2.9000e-004		10.9553

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	10.7457	31.3128	90.0852	0.1977	8.7286	0.2724	9.0009	2.4778	0.2567	2.7345			19,980.6152	19,980.6152	1.2443		20,011.7220
Unmitigated	10.7457	31.3128	90.0852	0.1977	8.7286	0.2724	9.0009	2.4778	0.2567	2.7345			19,980.6152	19,980.6152	1.2443		20,011.7220

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,936.93	1,936.93	1098.42	1,912,339	1,912,339
Fast Food Restaurant with Drive Thru	1,482.20	1,482.20	840.55	1,463,385	1,463,385
Total	3,419.13	3,419.13	1,938.97	3,375,723	3,375,723

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.543066	0.045258	0.213197	0.125617	0.019254	0.005808	0.023323	0.014742	0.001554	0.001731	0.004738	0.000577	0.001134
Fast Food Restaurant with Drive Thru	0.543066	0.045258	0.213197	0.125617	0.019254	0.005808	0.023323	0.014742	0.001554	0.001731	0.004738	0.000577	0.001134

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522		824.0404	824.0404	0.0158	0.0151	828.9372
NaturalGas Unmitigated	0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522		824.0404	824.0404	0.0158	0.0151	828.9372

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					
Fast Food Restaurant with Drive Thru	3036.12	0.0327	0.2977	0.2500	1.7900e-003		0.0226	0.0226		0.0226	0.0226		357.1902	357.1902	6.8500e-003	6.5500e-003	359.3128
Fast Food Restaurant with Drive Thru	3968.23	0.0428	0.3890	0.3268	2.3300e-003		0.0296	0.0296		0.0296	0.0296		466.8502	466.8502	8.9500e-003	8.5600e-003	469.6244
Total		0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522		824.0404	824.0404	0.0158	0.0151	828.9372

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						
Fast Food Restaurant with Drive Thru	3.03612	0.0327	0.2977	0.2500	1.7900e-003		0.0226	0.0226		0.0226	0.0226			357.1902	357.1902	6.8500e-003	6.5500e-003	359.3128
Fast Food Restaurant with Drive Thru	3.96823	0.0428	0.3890	0.3268	2.3300e-003		0.0296	0.0296		0.0296	0.0296			466.8502	466.8502	8.9500e-003	8.5600e-003	469.6244
Total		0.0755	0.6867	0.5768	4.1200e-003		0.0522	0.0522		0.0522	0.0522			824.0404	824.0404	0.0158	0.0151	828.9372

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1600e-003	2.1600e-003	1.0000e-005	2.3100e-003
Unmitigated	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000			2.1600e-003	2.1600e-003	1.0000e-005	2.3100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1949					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003
Total	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0250					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1949					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003
Total	0.2200	1.0000e-005	1.0200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1600e-003	2.1600e-003	1.0000e-005		2.3100e-003

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

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
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

17th-Tustin Chick-fil-A and In N Out - Orange County, Annual

**17th-Tustin Chick-fil-A and In N Out
Orange County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	5.58	1000sqft	1.66	5,577.00	0
Fast Food Restaurant with Drive Thru	4.27	1000sqft	1.66	4,267.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project Characteristics

Land Use - Project Characteristics

Construction Phase - Per AQ construction questionnaire

Off-road Equipment -

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Off-road Equipment - Per AQ Construction Questionnaire

Trips and VMT - Balanced cut and fill on-site

Demolition -

Grading - Balanced cut and fill on-site, site acreage

Vehicle Trips - Per Traffic Impact Analysis

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Area Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	18.00	11.00
tblConstructionPhase	NumDays	230.00	200.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	8.00	22.00
tblConstructionPhase	NumDays	18.00	7.00
tblGrading	AcresOfGrading	0.00	3.36
tblGrading	MaterialExported	0.00	814.00
tblGrading	MaterialImported	0.00	814.00
tblLandUse	BuildingSpaceSquareFeet	4,270.00	4,267.00
tblLandUse	BuildingSpaceSquareFeet	5,580.00	5,577.00
tblLandUse	LandUseSquareFeet	4,270.00	4,267.00
tblLandUse	LandUseSquareFeet	5,580.00	5,577.00
tblLandUse	LotAcreage	0.10	1.66
tblLandUse	LotAcreage	0.13	1.66
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblSolidWaste	SolidWasteGenerationRate	113.46	113.35
tblTripsAndVMT	HaulingTripLength	20.00	0.13
tblVehicleTrips	ST_TR	722.03	347.12
tblVehicleTrips	SU_TR	542.72	196.85
tblVehicleTrips	WD_TR	496.12	347.12
tblWater	IndoorWaterUseRate	2,989,807.07	2,986,771.73
tblWater	OutdoorWaterUseRate	190,838.75	190,645.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2017	5-31-2017	0.2936	0.2936
2	6-1-2017	8-31-2017	0.2551	0.2551
3	9-1-2017	11-30-2017	0.2524	0.2524
4	12-1-2017	2-28-2018	0.2630	0.2630
5	3-1-2018	5-31-2018	0.0076	0.0076
		Highest	0.2936	0.2936

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	0.0402	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004
Energy	0.0138	0.1253	0.1053	7.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	252.8250	252.8250	7.4200e-003	3.5000e-003	254.0521
Mobile	1.7502	5.4296	15.3611	0.0342	1.4674	0.0460	1.5135	0.4174	0.0434	0.4608	0.0000	3,138.1435	3,138.1435	0.1905	0.0000	3,142.9048
Waste						0.0000	0.0000		0.0000	0.0000	23.0090	0.0000	23.0090	1.3598	0.0000	57.0039
Water						0.0000	0.0000		0.0000	0.0000	0.9476	13.0663	14.0139	0.0979	2.4100e-003	17.1785
Total	1.8041	5.5549	15.4665	0.0350	1.4674	0.0556	1.5230	0.4174	0.0529	0.4703	23.9566	3,404.0350	3,427.9916	1.6555	5.9100e-003	3,471.1396

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	0.0402	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004
Energy	0.0138	0.1253	0.1053	7.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	252.8250	252.8250	7.4200e-003	3.5000e-003	254.0521
Mobile	1.7502	5.4296	15.3611	0.0342	1.4674	0.0460	1.5135	0.4174	0.0434	0.4608	0.0000	3,138.1435	3,138.1435	0.1905	0.0000	3,142.9048
Waste						0.0000	0.0000		0.0000	0.0000	11.5045	0.0000	11.5045	0.6799	0.0000	28.5019
Water						0.0000	0.0000		0.0000	0.0000	0.7581	10.5880	11.3461	0.0783	1.9300e-003	13.8783
Total	1.8041	5.5549	15.4665	0.0350	1.4674	0.0556	1.5230	0.4174	0.0529	0.4703	12.2626	3,401.5567	3,413.8193	0.9561	5.4300e-003	3,439.3374

	ROG	NOx	CO	SO2	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	48.81	0.07	0.41	42.25	8.12	0.92

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	3/1/2017	3/31/2017	5	23	
2	Grading	Grading	4/1/2017	5/2/2017	5	22	
3	Building Construction	Building Construction	5/3/2017	2/6/2018	5	200	
4	Paving	Paving	2/7/2018	2/15/2018	5	7	
5	Architectural Coating	Architectural Coating	2/16/2018	3/2/2018	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.36

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 14,766; Non-Residential Outdoor: 4,922; 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
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	0	6.00	80	0.38
Paving	Rubber Tired Loaders	1	8.00	203	0.36
Paving	Signal Boards	1	8.00	6	0.82
Paving	Surfacing Equipment	1	8.00	263	0.30
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	2	5.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	102.00	14.70	6.90	0.13	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	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 Demolition - 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					2.2000e-004	0.0000	2.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.0840	0.0706	1.1000e-004	6.1600e-003	6.1600e-003	6.1600e-003	5.9500e-003	5.9500e-003	5.9500e-003	0.0000	9.5034	9.5034	1.5600e-003	0.0000	9.5424
Total	0.0103	0.0840	0.0706	1.1000e-004	2.2000e-004	6.1600e-003	6.3800e-003	3.0000e-005	5.9500e-003	5.9800e-003	0.0000	9.5034	9.5034	1.5600e-003	0.0000	9.5424

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	1.0000e-005	3.5000e-004	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0793	0.0793	1.0000e-005	0.0000	0.0795
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.3000e-004	2.4200e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5972	0.5972	2.0000e-005	0.0000	0.5976
Total	3.0000e-004	5.8000e-004	2.5000e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.6765	0.6765	3.0000e-005	0.0000	0.6771

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					8.0000e-005	0.0000	8.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0103	0.0840	0.0706	1.1000e-004		6.1600e-003	6.1600e-003		5.9500e-003	5.9500e-003	0.0000	9.5034	9.5034	1.5600e-003	0.0000	9.5424
Total	0.0103	0.0840	0.0706	1.1000e-004	8.0000e-005	6.1600e-003	6.2400e-003	1.0000e-005	5.9500e-003	5.9600e-003	0.0000	9.5034	9.5034	1.5600e-003	0.0000	9.5424

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	1.0000e-005	3.5000e-004	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0793	0.0793	1.0000e-005	0.0000	0.0795
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.3000e-004	2.4200e-003	1.0000e-005	6.3000e-004	0.0000	6.4000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5972	0.5972	2.0000e-005	0.0000	0.5976
Total	3.0000e-004	5.8000e-004	2.5000e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.6765	0.6765	3.0000e-005	0.0000	0.6771

3.3 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					1.8700e-003	0.0000	1.8700e-003	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1005	0.0790	1.0000e-004		7.5500e-003	7.5500e-003		6.9500e-003	6.9500e-003	0.0000	9.5279	9.5279	2.9200e-003	0.0000	9.6009
Total	0.0105	0.1005	0.0790	1.0000e-004	1.8700e-003	7.5500e-003	9.4200e-003	2.1000e-004	6.9500e-003	7.1600e-003	0.0000	9.5279	9.5279	2.9200e-003	0.0000	9.6009

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	1.2000e-004	5.1700e-003	9.9000e-004	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.4597	0.4597	1.1000e-004	0.0000	0.4624
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	4.4000e-004	3.4000e-004	3.7000e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.9140	0.9140	3.0000e-005	0.0000	0.9147
Total	5.6000e-004	5.5100e-003	4.6900e-003	1.0000e-005	9.8000e-004	2.0000e-005	9.8000e-004	2.6000e-004	2.0000e-005	2.7000e-004	0.0000	1.3737	1.3737	1.4000e-004	0.0000	1.3771

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					6.9000e-004	0.0000	6.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1005	0.0790	1.0000e-004		7.5500e-003	7.5500e-003		6.9500e-003	6.9500e-003	0.0000	9.5279	9.5279	2.9200e-003	0.0000	9.6009
Total	0.0105	0.1005	0.0790	1.0000e-004	6.9000e-004	7.5500e-003	8.2400e-003	8.0000e-005	6.9500e-003	7.0300e-003	0.0000	9.5279	9.5279	2.9200e-003	0.0000	9.6009

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	1.2000e-004	5.1700e-003	9.9000e-004	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	0.4597	0.4597	1.1000e-004	0.0000	0.4624
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	4.4000e-004	3.4000e-004	3.7000e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.9140	0.9140	3.0000e-005	0.0000	0.9147
Total	5.6000e-004	5.5100e-003	4.6900e-003	1.0000e-005	9.8000e-004	2.0000e-005	9.8000e-004	2.6000e-004	2.0000e-005	2.7000e-004	0.0000	1.3737	1.3737	1.4000e-004	0.0000	1.3771

3.4 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	0.0533	0.5924	0.5313	7.5000e-004		0.0374	0.0374		0.0344	0.0344	0.0000	69.1955	69.1955	0.0212	0.0000	69.7256
Total	0.0533	0.5924	0.5313	7.5000e-004		0.0374	0.0374		0.0344	0.0344	0.0000	69.1955	69.1955	0.0212	0.0000	69.7256

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	8.1000e-004	0.0225	6.3800e-003	4.0000e-005	1.0900e-003	1.9000e-004	1.2800e-003	3.1000e-004	1.8000e-004	5.0000e-004	0.0000	4.2811	4.2811	4.0000e-004	0.0000	4.2911
Worker	1.7400e-003	1.3500e-003	0.0146	4.0000e-005	3.8000e-003	3.0000e-005	3.8200e-003	1.0100e-003	2.0000e-005	1.0300e-003	0.0000	3.5936	3.5936	1.1000e-004	0.0000	3.5962
Total	2.5500e-003	0.0239	0.0209	8.0000e-005	4.8900e-003	2.2000e-004	5.1000e-003	1.3200e-003	2.0000e-004	1.5300e-003	0.0000	7.8747	7.8747	5.1000e-004	0.0000	7.8874

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	0.0533	0.5924	0.5313	7.5000e-004		0.0374	0.0374		0.0344	0.0344	0.0000	69.1955	69.1955	0.0212	0.0000	69.7255
Total	0.0533	0.5924	0.5313	7.5000e-004		0.0374	0.0374		0.0344	0.0344	0.0000	69.1955	69.1955	0.0212	0.0000	69.7255

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	8.1000e-004	0.0225	6.3800e-003	4.0000e-005	1.0900e-003	1.9000e-004	1.2800e-003	3.1000e-004	1.8000e-004	5.0000e-004	0.0000	4.2811	4.2811	4.0000e-004	0.0000	4.2911
Worker	1.7400e-003	1.3500e-003	0.0146	4.0000e-005	3.8000e-003	3.0000e-005	3.8200e-003	1.0100e-003	2.0000e-005	1.0300e-003	0.0000	3.5936	3.5936	1.1000e-004	0.0000	3.5962
Total	2.5500e-003	0.0239	0.0209	8.0000e-005	4.8900e-003	2.2000e-004	5.1000e-003	1.3200e-003	2.0000e-004	1.5300e-003	0.0000	7.8747	7.8747	5.1000e-004	0.0000	7.8874

3.4 Building Construction - 2018

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	6.9400e-003	0.0790	0.0815	1.2000e-004		4.6100e-003	4.6100e-003		4.2400e-003	4.2400e-003	0.0000	10.6206	10.6206	3.3100e-003	0.0000	10.7032
Total	6.9400e-003	0.0790	0.0815	1.2000e-004		4.6100e-003	4.6100e-003		4.2400e-003	4.2400e-003	0.0000	10.6206	10.6206	3.3100e-003	0.0000	10.7032

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	1.1000e-004	3.2900e-003	9.1000e-004	1.0000e-005	1.7000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6651	0.6651	6.0000e-005	0.0000	0.6666
Worker	2.5000e-004	1.9000e-004	2.0200e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5445	0.5445	1.0000e-005	0.0000	0.5449
Total	3.6000e-004	3.4800e-003	2.9300e-003	2.0000e-005	7.6000e-004	2.0000e-005	7.9000e-004	2.1000e-004	2.0000e-005	2.3000e-004	0.0000	1.2096	1.2096	7.0000e-005	0.0000	1.2115

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	6.9400e-003	0.0790	0.0815	1.2000e-004		4.6100e-003	4.6100e-003		4.2400e-003	4.2400e-003	0.0000	10.6206	10.6206	3.3100e-003	0.0000	10.7032
Total	6.9400e-003	0.0790	0.0815	1.2000e-004		4.6100e-003	4.6100e-003		4.2400e-003	4.2400e-003	0.0000	10.6206	10.6206	3.3100e-003	0.0000	10.7032

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	1.1000e-004	3.2900e-003	9.1000e-004	1.0000e-005	1.7000e-004	2.0000e-005	1.9000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6651	0.6651	6.0000e-005	0.0000	0.6666
Worker	2.5000e-004	1.9000e-004	2.0200e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5445	0.5445	1.0000e-005	0.0000	0.5449
Total	3.6000e-004	3.4800e-003	2.9300e-003	2.0000e-005	7.6000e-004	2.0000e-005	7.9000e-004	2.1000e-004	2.0000e-005	2.3000e-004	0.0000	1.2096	1.2096	7.0000e-005	0.0000	1.2115

3.5 Paving - 2018

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	3.3000e-003	0.0399	0.0220	6.0000e-005		1.5100e-003	1.5100e-003		1.3900e-003	1.3900e-003	0.0000	5.6108	5.6108	1.7100e-003	0.0000	5.6536
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.3000e-003	0.0399	0.0220	6.0000e-005		1.5100e-003	1.5100e-003		1.3900e-003	1.3900e-003	0.0000	5.6108	5.6108	1.7100e-003	0.0000	5.6536

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	1.6000e-004	1.2000e-004	1.3100e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3529	0.3529	1.0000e-005	0.0000	0.3532
Total	1.6000e-004	1.2000e-004	1.3100e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3529	0.3529	1.0000e-005	0.0000	0.3532

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	3.3000e-003	0.0399	0.0220	6.0000e-005		1.5100e-003	1.5100e-003		1.3900e-003	1.3900e-003	0.0000	5.6107	5.6107	1.7100e-003	0.0000	5.6536
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.3000e-003	0.0399	0.0220	6.0000e-005		1.5100e-003	1.5100e-003		1.3900e-003	1.3900e-003	0.0000	5.6107	5.6107	1.7100e-003	0.0000	5.6536

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	1.6000e-004	1.2000e-004	1.3100e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3529	0.3529	1.0000e-005	0.0000	0.3532
Total	1.6000e-004	1.2000e-004	1.3100e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3529	0.3529	1.0000e-005	0.0000	0.3532

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0110	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4076
Total	0.0473	0.0110	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4076

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	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0555	0.0555	0.0000	0.0000	0.0555
Total	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0555	0.0555	0.0000	0.0000	0.0555

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0110	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4076
Total	0.0473	0.0110	0.0102	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.4043	1.4043	1.3000e-004	0.0000	1.4076

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	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0555	0.0555	0.0000	0.0000	0.0555
Total	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0555	0.0555	0.0000	0.0000	0.0555

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	1.7502	5.4296	15.3611	0.0342	1.4674	0.0460	1.5135	0.4174	0.0434	0.4608	0.0000	3,138.1435	3,138.1435	0.1905	0.0000	3,142.9048
Unmitigated	1.7502	5.4296	15.3611	0.0342	1.4674	0.0460	1.5135	0.4174	0.0434	0.4608	0.0000	3,138.1435	3,138.1435	0.1905	0.0000	3,142.9048

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,936.93	1,936.93	1098.42	1,912,339	1,912,339
Fast Food Restaurant with Drive Thru	1,482.20	1,482.20	840.55	1,463,385	1,463,385
Total	3,419.13	3,419.13	1,938.97	3,375,723	3,375,723

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.543066	0.045258	0.213197	0.125617	0.019254	0.005808	0.023323	0.014742	0.001554	0.001731	0.004738	0.000577	0.001134
Fast Food Restaurant with Drive Thru	0.543066	0.045258	0.213197	0.125617	0.019254	0.005808	0.023323	0.014742	0.001554	0.001731	0.004738	0.000577	0.001134

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	116.3959	116.3959	4.8100e-003	9.9000e-004	116.8123
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	116.3959	116.3959	4.8100e-003	9.9000e-004	116.8123
NaturalGas Mitigated	0.0138	0.1253	0.1053	7.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	136.4291	136.4291	2.6100e-003	2.5000e-003	137.2399
NaturalGas Unmitigated	0.0138	0.1253	0.1053	7.5000e-004		9.5200e-003	9.5200e-003		9.5200e-003	9.5200e-003	0.0000	136.4291	136.4291	2.6100e-003	2.5000e-003	137.2399

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					
Fast Food Restaurant with Drive Thru	1.10818e+006	5.9800e-003	0.0543	0.0456	3.3000e-004		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	59.1368	59.1368	1.1300e-003	1.0800e-003	59.4883
Fast Food Restaurant with Drive Thru	1.4484e+006	7.8100e-003	0.0710	0.0596	4.3000e-004		5.4000e-003	5.4000e-003		5.4000e-003	5.4000e-003	0.0000	77.2923	77.2923	1.4800e-003	1.4200e-003	77.7516
Total		0.0138	0.1253	0.1053	7.6000e-004		9.5300e-003	9.5300e-003		9.5300e-003	9.5300e-003	0.0000	136.4291	136.4291	2.6100e-003	2.5000e-003	137.2399

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					
Fast Food Restaurant with Drive Thru	1.10818e+006	5.9800e-003	0.0543	0.0456	3.3000e-004		4.1300e-003	4.1300e-003		4.1300e-003	4.1300e-003	0.0000	59.1368	59.1368	1.1300e-003	1.0800e-003	59.4883
Fast Food Restaurant with Drive Thru	1.4484e+006	7.8100e-003	0.0710	0.0596	4.3000e-004		5.4000e-003	5.4000e-003		5.4000e-003	5.4000e-003	0.0000	77.2923	77.2923	1.4800e-003	1.4200e-003	77.7516
Total		0.0138	0.1253	0.1053	7.6000e-004		9.5300e-003	9.5300e-003		9.5300e-003	9.5300e-003	0.0000	136.4291	136.4291	2.6100e-003	2.5000e-003	137.2399

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	158348	50.4532	2.0800e-003	4.3000e-004	50.6337
Fast Food Restaurant with Drive Thru	206962	65.9427	2.7200e-003	5.6000e-004	66.1786
Total		116.3959	4.8000e-003	9.9000e-004	116.8123

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	158348	50.4532	2.0800e-003	4.3000e-004	50.6337
Fast Food Restaurant with Drive Thru	206962	65.9427	2.7200e-003	5.6000e-004	66.1786
Total		116.3959	4.8000e-003	9.9000e-004	116.8123

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	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	0.0402	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004
Unmitigated	0.0402	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-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	tons/yr										MT/yr					
Architectural Coating	4.5600e-003					0.0000	0.0000		0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004
Total	0.0401	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004

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	4.5600e-003					0.0000	0.0000		0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004
Total	0.0401	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4000e-004	2.4000e-004	0.0000	0.0000	2.6000e-004

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.3461	0.0783	1.9300e-003	13.8783
Unmitigated	14.0139	0.0979	2.4100e-003	17.1785

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with	2.98677 / 0.190645	14.0139	0.0979	2.4100e-003	17.1785
Total		14.0139	0.0979	2.4100e-003	17.1785

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive-Through	2.38942 / 0.190645	11.3461	0.0783	1.9300e-003	13.8783
Total		11.3461	0.0783	1.9300e-003	13.8783

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.5045	0.6799	0.0000	28.5019
Unmitigated	23.0090	1.3598	0.0000	57.0039

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	M1/yr			
Fast Food Restaurant with	113.35	23.0090	1.3598	0.0000	57.0039
Total		23.0090	1.3598	0.0000	57.0039

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	M1/yr			
Fast Food Restaurant with	56.675	11.5045	0.6799	0.0000	28.5019
Total		11.5045	0.6799	0.0000	28.5019

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation



**Minutes for the GHG CEQA Significance Threshold
Stakeholder Working Group #15
Tuesday, September 28, 2010
SCAQMD, Room GB, 10:00 AM – 12:00 PM**

1. Welcome and Introductions

Dr. Elaine Chang, Deputy Executive Officer of SCAQMD's Planning Rule Development and Area Sources Division, called the meeting to order at 10:10 A.M. and asked for self introductions of the working group members and SCAQMD staff. Dr. Chang then presented an overview of the meeting agenda.

2. Review of Significance Threshold Approach

Mr. Mike Krause, Program Supervisor of the CEQA Special Projects section in SCAQMD's Planning Rule Development and Area Sources Division, provided a summary of SCAQMD staff's proposed GHG significance threshold approach, shown in the following bullet points:

- Tier I – Exemptions, e.g., categorical, statutory, etc.
- Tier II – Consistency with a locally adopted GHG reduction plan
- Tier III – Numerical Screening Thresholds

Mr. Krause reminded the group that on December 5, 2008, the SCAQMD Governing Board adopted a numerical GHG significance threshold of 10,000 MTCO₂e/year for industrial projects where the SCAQMD is the lead agency. Staff is now proposing to extend the industrial GHG significance threshold for use by all lead agencies. Similarly, with regard to numerical residential/commercial GHG significance thresholds, at the 11/19/2009 stakeholder working group meeting staff presented two options that lead agencies could choose: option #1 – separate numerical thresholds for residential projects (3,500 MTCO₂e/year), commercial projects (1,400 MTCO₂e/year), and mixed use projects (3,000 MTCO₂e/year) and; option #2 – a single numerical threshold for all non-industrial projects of 3,000 MTCO₂e/year. If a lead agency chooses one option, it must consistently use that same option for all projects where it is lead agency. The current staff proposal is to recommend the use of option #2, but allow lead agencies to choose option #1 if they prefer that approach.

- Tier IV – Performance Standards
 - Option 1 – Percent Emission Reduction Target

SCAQMD staff has no recommendation regarding this approach at this time. Instead, if lead agencies enquire about using this approach, staff would reference the GHG significance approach recommended by San Joaquin Valley APCD and describe some of the challenges of using this approach.
 - Option 2 – Early Implementation of Applicable Measures – this option has been folded into option 3.
 - Option 3 – Sector-based Standard

Dr. Elaine Chang presented information on the currently proposed Tier IV performance standards. Option 3 has been modified to incorporate the Bay Area AQMD's concept of efficiency-based threshold for two target dates: 2020 and 2035. Relative to the 2020 target date, staff agrees with the methodology for establishing the efficiency threshold value of 6.6 MTCO₂/yr for plans because this number is based on statewide service population (SP) in 2020. With regard to the project level efficiency threshold SCAQMD staff took a slightly different approach than BAAQMD. To derive the project level efficiency threshold of 4.6, it appears that BAAQMD took the 2020 statewide GHG reduction target for land use only (295,530,000 MTCO₂e/yr) and divided it by the total 2020 statewide SP (population plus employment) (44,135,923 + 20,194,661), i.e., $(295,530,000 \text{ MTCO}_2\text{e/yr}) / (44,135,923 + 20,194,661) = 4.6 \text{ MTCO}_2\text{e/yr}$. SCAQMD staff believes that instead of using total 2020 statewide employment for all sectors, this approach should have used total 2020 statewide employment for the land use sectors only (17,064,489). If you use total 2020 statewide employment for land use sectors instead of total 2020 statewide employment for all sectors as BAAQMD did, your local project efficiency threshold becomes: $(295,530,000 \text{ MTCO}_2\text{e/yr}) / (44,135,923 + 17,064,489) = 4.8 \text{ MTCO}_2\text{e/yr}$.

Relative to the 2035 target date, this target date was selected to be consistent with the GHG reduction target date of SB375. Overall, GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. This 40 percent reduction was applied to the 2020 targets, resulting in an efficiency threshold for plans of 4.1 MTCO₂e/yr and an efficiency threshold at the project level of 3.0 MTCO₂e/yr.

- Tier V – Mitigation: CEQA Offsets – no changes.

A question was asked whether or not a project must be less than or equal to both the 2020 and 2035 efficiency threshold in order to be considered insignificant. Staff responded yes.

Another stakeholder asked if the lead agency could take credit for GHG design features when determining the significance of GHG impacts. Staff responded yes.

Staff was asked whether or not they had looked at any test cases to see if projects could meet the 2035 efficiency threshold. Staff responded that no test cases were evaluated. However, it may be likely that projects can achieve the 2035 efficiency threshold because the SB375 target GHG reductions are expected to be met primarily through cleaner fleets as a result of fleet turnover and reducing VMT. Consequently, fleet turnover plus a small increment of GHG reductions from land use projects could potentially achieve the 2035 efficiency threshold.

A comment was made that by establishing a GHG significance threshold for both 2020 and 2035, a lead agency would have to continue mitigating GHG emission impacts for 40 years, which is equivalent to establishing a reasonably available control technology (RACT) rule. Dr. Chang responded that by establishing the 2035 efficiency threshold, to reduce potential GHG impacts to less than significant, the lead agency and project proponent may need to “sharpen their pencils” to identify mitigation measures to remain less than significant. The staff proposal is not considered to be equivalent to a RACT rule because a

project could exceed the 2020 and or 2035 efficiency threshold, but still be approved and built.

A comment was made that exceeding the target efficiency threshold is not just a question of going through the CEQA process, which would require preparation of an EIR, feasible mitigation measures, alternatives, etc. The lead agency would have to approve a project with significant impacts, make findings, and prepare a statement of overriding considerations. In this situation there is legal vulnerability to a certain extent.

A question was asked about how to treat projects where GHG impacts from VMT are a small part of the project. Dr. Chang responded that for this type of project, the lead agency and/or project proponent would have to look at other measures or design features to reduce impacts to less than the 2020 and 2035 efficiency threshold. For these types of projects, it may be difficult to achieve the target efficiency threshold.

A comment was made that the SCAQMD's approach to Tier IV option one, that is, no recommendation, but discuss challenges, implies opposition to this approach. This perceived opposition could jeopardize the Tier II approach, which relies on consistency with a GHG reduction plan. GHG reduction plans will likely rely on a percent GHG reduction to achieve some future target, e.g., AB 32 2020 GHG reduction targets. Although there may be some issues with the percent reduction approach, e.g., gaming the system, there may be valid reasons for using this approach, so the SCAQMD should not discourage it. Another participant suggested that perhaps the SCAQMD could simply say that staff has not sufficiently evaluated this approach and will evaluate the appropriateness of this option on a case-by-case basis.

A comment was made that using SB 375 targets may require GHG reductions that go beyond what would be required in sustainable community strategies (SCSs) and alternative planning strategies (APSs). Further, SB 375 is primarily related to reducing GHG emissions from mobile sources, so establishing 2035 efficiency threshold based only on SB 375 ignores the GHG emission effects from AB 32 (CARB's Scoping Plan). SB 375 relies primarily on process or incentives to reduce GHG emissions rather than mandates. SB 375 also relaxes state requirements to update Housing Elements from five to eight years. CARB's Scoping Plan has provisions for updating the GHG reduction targets every four or eight years, which would provide more flexibility in developing future target efficiency threshold. For this reason and the fact that the Scoping Plan addresses GHG emission reductions from various land use sectors, it may be more appropriated to rely on the GHG emission reduction targets identified by CARB in the Scoping Plan for developing future target efficiency threshold.

A question was asked whether or not a lead agency could use GHG emission offsets to achieve the target efficiency threshold. Staff responded that there did not seem to be a downside to using offsets to get below the target efficiency threshold.

A request was made for SCAQMD staff to eliminate the maximum GHG limit proposal that was discussed at the November 19, 2009 stakeholder working group meeting. Any projects that exceed the maximum GHG limit would be considered significant, even though they

achieved or are less than the target efficiency threshold. Staff stated that they were no longer including the maximum limit in the staff proposal.

A suggestion was made that the SCAQMD should not move forward with the efficiency threshold approach because lead agencies in the Bay Area are encountering a number of serious issues using this approach. In addition, because of the way the efficiency threshold is derived, it may inhibit proposals for mixed use projects rather than encourage them.

3. Other Topics

None.

4. Next Steps

A question was asked regarding when staff expected to bring the current GHG proposals to the Governing Board for consideration. Staff responded that the hope was to bring the proposals to the Board by December 2010. However, this schedule will depend on any feedback from the working group and necessary changes to the current proposals. In addition, the guidance document prepared for the numerical industrial GHG significance threshold needs to be revised and updated to reflect the current proposals.

5. Closing Remarks

The meeting ended at approximately 11:00 a.m. The next meeting is scheduled for August 26, 2009 in meeting room GB at 10:00 AM.

6. Other Business

None.

MEMBERS PRESENT (11)

Greg Adams – City of Los Angeles Bureau of Sanitation
James Arnone – Latham & Watkins
Doug Feremenga – San Bernardino County Land Use Planning Department
Michael Hendrix – Association of Environmental Professionals (AEP)
Shari Libicki, Green Developers Coalition (*on conference call*)
Debbie Stevens – Refineries
Cindy Thielman – Riverside County Planning Department
Jocelyn Thompson - Alston
Matt Vespa – Center for Biological Diversity (CBD) (*on conference call*)
Carla Walecka – Realtors Committee on Air Quality (RCAQ)
Lee Wallace – Sempra Energy Utilities

OTHERS PRESENT (7)

Lilia Barker – LADWP (*on conference call*)

Patrick Griffith – County Sanitation Districts of Los Angeles County
Mark Hagmann – Matrix (*on conference call*)
Sung Key Ma – Riverside County Waste Management Department
Vince Mirabella – Michael Brandman Associates
Molly Pearson – Santa Barbara County APCD (*on conference call*)
Haseeb Qureshi – Urban Crossroads

AQMD STAFF PRESENT (8)

Elaine Chang – Deputy Executive Officer
Steve Smith – Program Supervisor
Daniel Garcia – Air Quality Specialist
Jeff Inabinet – Air Quality Specialist
James Koizumi – Air Quality Specialist
Mike Krause – Program Supervisor
Gordon Mize – Air Quality Specialist
Barbara Radlein – Air Quality Specialist

Land Use	Natural Gas Use	Electricity Use	Electricity Use
	(kBtu/yr)	(kWh/yr)	(MWh/yr)
Fast food Restaurat with Drive Thru	1,108,180	158348	158
Fast food Restaurat with Drive Thru	1,448,400	206962	207
Total kBtu	2,556,580	365,310	365
Total Therms	25,566	365	

1 kBtu = 0.01 therms

Energy Type	Project Annual Energy Consumption	Orange County Annual Energy Consumption	Percentage Increase Countywide
Electricity	365	20,030,546	0.00182%
Natural Gas	25,566	5,766,023,027	0.00044%

Vehicle Type	Percent of Vehicle Trips ¹	Daily Trips ²	Annual Vehicle Miles Traveled ³	Average Fuel Economy (miles per gallon) ⁴	Total Annual Fuel Consumption (gallons) ⁵
Passenger Cars	0.55	--	1856647.65	22	84,393
Light/Medium Trucks	0.37	--	1249017.51	17.3	72,198
Heavy Trucks/Other	0.08	--	270057.84	6.4	42,197
TOTAL⁶	1.00	--	3,375,723	--	198,787

Countywide
1,248,703,310 0.01592%

Notes:

1. Percent of Vehicle Trip distribution based on trip characteristics within the CalEEMod model.
2. Daily Trips calculated by multiplying the total daily trips by percent vehicle trips (i.e., Daily Trips x percent of Vehicle Trips).
3. Daily Vehicle Miles Traveled (VMT) calculated by multiplying percent vehicle trips by total VMT (i.e., VMT x percent of Vehicle Trips).
4. Average fuel economy derived from the Department of Transportation.
5. Total Daily Fuel Consumption calculated by dividing the daily VMT by the average fuel economy (i.e., VMT/Average Fuel Economy).
6. Values may be slightly off due to rounding.

Source: Refer to [Appendix A, Air Quality/Greenhouse Gas Data](#) for CalEEMod assumptions used in this analysis.

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	81	0.73	2.3652	8	23	435.1968
	Excavators	0	8	158	0.38	2.4016	0	23	0
	Rubber Tired Dozers	0	8	247	0.4	3.952	0	23	0
	Tractors/Loaders/Backhoes	1	8	97	0.37	1.4356	8	23	264.1504
Grading	Excavators	0	8	158	0.38	2.4016	0	22	0
	Graders	0	8	187	0.41	3.0668	0	22	0
	Rubber Tired Dozers	0	8	247	0.4	3.952	0	22	0
	Tractors/Loaders/Backhoes	3	8	97	0.37	1.4356	8	22	252.6656
Building Construction	Cranes	0	7	231	0.29	2.6796	0	200	0
	Forklifts	0	8	89	0.2	0.712	0	200	0
	Generator Sets	0	8	84	0.74	2.4864	0	200	0
	Rough Terrain Forklifts	1	8	100	0.4	1.6	8	200	2560
	Skid Steer Loaders	1	8	65	0.37	0.962	8	200	1539.2
	Tractors/Loaders/Backhoes	1	8	97	0.37	1.4356	8	200	2296.96
Architectural Coating	Welders	0	8	46	0.45	0.828	0	200	0
	Air Compressors	1	6	78	0.48	1.4976	6	11	98.8416
Paving	Pavers	0	8	130	0.42	2.184	0	7	0
	Cement and Mortar Mixers	0	6	9	0.56	0.2016	0	7	0
	Paving Equipment	1	8	132	0.36	1.9008	8	7	106.4448
	Surfacing Equipment	1	8	263	0.3	3.156	8	7	176.736
	Signal Boards	1	8	6	0.82	0.1968	8	7	11.0208
	Rubber Tired Loaders	1	8	203	0.36	2.9232	8	7	163.6992
	Tractors/Loaders/Backhoes	0	8	97	0.37	1.4356	0	7	0
	Rollers	0	6	80	0.38	1.216	0	7	0
Total									7,905

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.

County Offroad Gallons 155,501,327
0.0050835%