

Appendix K

Greenhouse Gas Emissions Calculations

Triangle Phase 1a
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
High Turnover (Sit Down Restaurant)	49.392	1000sqft
Parking Lot	173	Space

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics - The Triangle Phase 1a
 Land Use - restaurant acreage incr from 1.13 to 61.94 for grade of total site
 Construction Phase - Durations based on CalEEMod Appx D
 Prep 7/1-8/16/13(35);grad 8/17-12/7/13(80);Util 11/10-12/7/13(20)
 Build 12/8/13-5/14/14(113);Pave 4/1-11/14(10);Coat 5/1-14/14(10)
 Off-road Equipment - OFFROAD 2011 load factors
 Prep-Default off-road equip

Off-road Equipment - Grade-Default off-road equip
 Off-road Equipment - Util-1 fork, 1 backhoe
 Off-road Equipment - Build - Default off-road equip per Appx D
 Off-road Equipment - Pave-Default off-road equip per Appx D
 Off-road Equipment -
 Grading - Grading balanced on site
 Added 63 acres disturbed site prep
 Trips and VMT - Worker and vendor trips per Appx A
 Vehicle Trips - Default wkday trip rate matches proj rept
 Passby reduce 43 to 15 per proj rept; equal incr to prim and divert
 Construction Off-road Equipment Mitigation - water 2x daily
 All Tier 3 off-road
 Architectural Coating - Coat area=2xgsf per Appx A = 98.794sf
 Interior=0.75=74,088; Exterior@0.25=24,696

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.47	3.75	2.17	0.00	0.75	0.18	0.94	0.33	0.18	0.51			380.45	0.04	0.00	381.26
2014	0.72	0.78	0.68	0.00	0.01	0.06	0.07	0.00	0.06	0.06			92.54	0.01	0.00	92.79
Total	1.19	4.53	2.85	0.00	0.76	0.24	1.01	0.33	0.24	0.57			472.99	0.05	0.00	474.05

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2013	0.31	1.92	2.20	0.00	0.35	0.13	0.48	0.15	0.13	0.28			380.45	0.04	0.00	381.26
2014	0.69	0.56	0.63	0.00	0.01	0.05	0.06	0.00	0.05	0.05			92.54	0.01	0.00	92.79
Total	1.00	2.48	2.83	0.00	0.36	0.18	0.54	0.15	0.18	0.33			472.99	0.05	0.00	474.05

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Water Exposed Area

3.2 Site Preparation - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.35	0.00	0.35	0.18	0.00	0.18			0.00	0.00	0.00	0.00
Off-Road	0.12	0.95	0.54	0.00		0.05	0.05		0.05	0.05			85.92	0.01	0.00	86.12
Total	0.12	0.95	0.54	0.00	0.35	0.05	0.40	0.18	0.05	0.23			85.92	0.01	0.00	86.12

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.77	0.00	0.00	2.77
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.77	0.00	0.00	2.77

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.16	0.00	0.16	0.08	0.00	0.08			0.00	0.00	0.00	0.00
Off-Road	0.07	0.45	0.47	0.00		0.03	0.03		0.03	0.03			85.92	0.01	0.00	86.12
Total	0.07	0.45	0.47	0.00	0.16	0.03	0.19	0.08	0.03	0.11			85.92	0.01	0.00	86.12

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.77	0.00	0.00	2.77
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.77	0.00	0.00	2.77

3.3 Grading - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.39	0.00	0.39	0.15	0.00	0.15			0.00	0.00	0.00	0.00
Off-Road	0.32	2.61	1.42	0.00		0.12	0.12		0.12	0.12			263.81	0.03	0.00	264.35
Total	0.32	2.61	1.42	0.00	0.39	0.12	0.51	0.15	0.12	0.27			263.81	0.03	0.00	264.35

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00			7.04	0.00	0.00	7.05
Total	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00			7.04	0.00	0.00	7.05

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.17	0.00	0.17	0.07	0.00	0.07			0.00	0.00	0.00	0.00
Off-Road	0.21	1.35	1.52	0.00		0.09	0.09		0.09	0.09			263.81	0.03	0.00	264.35
Total	0.21	1.35	1.52	0.00	0.17	0.09	0.26	0.07	0.09	0.16			263.81	0.03	0.00	264.35

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00			7.04	0.00	0.00	7.05
Total	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00			7.04	0.00	0.00	7.05

3.4 Utilities - 2013

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	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00			5.23	0.00	0.00	5.24
Total	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00			5.23	0.00	0.00	5.24

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.44	0.00	0.00	0.44
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.44	0.00	0.00	0.44

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	0.00	0.03	0.04	0.00		0.00	0.00		0.00	0.00			5.23	0.00	0.00	5.24
Total	0.00	0.03	0.04	0.00		0.00	0.00		0.00	0.00			5.23	0.00	0.00	5.24

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.44	0.00	0.00	0.44
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.44	0.00	0.00	0.44

3.5 Building Construction - 2013

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	0.03	0.12	0.10	0.00		0.01	0.01		0.01	0.01			12.17	0.00	0.00	12.21
Total	0.03	0.12	0.10	0.00		0.01	0.01		0.01	0.01			12.17	0.00	0.00	12.21

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.88	0.00	0.00	1.88
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.20	0.00	0.00	1.20
Total	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			3.08	0.00	0.00	3.08

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	0.02	0.08	0.09	0.00		0.01	0.01		0.01	0.01			12.17	0.00	0.00	12.21
Total	0.02	0.08	0.09	0.00		0.01	0.01		0.01	0.01			12.17	0.00	0.00	12.21

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.88	0.00	0.00	1.88
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.20	0.00	0.00	1.20
Total	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			3.08	0.00	0.00	3.08

3.5 Building Construction - 2014

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	0.13	0.65	0.55	0.00		0.05	0.05		0.05	0.05			68.72	0.01	0.00	68.95
Total	0.13	0.65	0.55	0.00		0.05	0.05		0.05	0.05			68.72	0.01	0.00	68.95

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.01	0.06	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00			10.63	0.00	0.00	10.64
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00			6.64	0.00	0.00	6.64
Total	0.01	0.06	0.07	0.00	0.01	0.00	0.02	0.00	0.00	0.00			17.27	0.00	0.00	17.28

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	0.10	0.46	0.51	0.00		0.04	0.04		0.04	0.04			68.72	0.01	0.00	68.95
Total	0.10	0.46	0.51	0.00		0.04	0.04		0.04	0.04			68.72	0.01	0.00	68.95

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.01	0.06	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00			10.63	0.00	0.00	10.64
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00			6.64	0.00	0.00	6.64
Total	0.01	0.06	0.07	0.00	0.01	0.00	0.02	0.00	0.00	0.00			17.27	0.00	0.00	17.28

3.6 Paving - 2014

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	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00			4.79	0.00	0.00	4.80
Paving	0.00					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00			4.79	0.00	0.00	4.80

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.31	0.00	0.00	0.31
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.31	0.00	0.00	0.31

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	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00			4.79	0.00	0.00	4.80
Paving	0.00					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00			4.79	0.00	0.00	4.80

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.31	0.00	0.00	0.31
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.31	0.00	0.00	0.31

3.7 Architectural Coating - 2014

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	0.57					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00			1.28	0.00	0.00	1.28
Total	0.57	0.01	0.01	0.00		0.00	0.00		0.00	0.00			1.28	0.00	0.00	1.28

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17

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	0.57					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00			1.28	0.00	0.00	1.28
Total	0.57	0.01	0.01	0.00		0.00	0.00		0.00	0.00			1.28	0.00	0.00	1.28

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17

Triangle Phase 1b and 1c 051012
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	48	1000sqft
Parking Lot	1708	Space
High Turnover (Sit Down Restaurant)	25.37	1000sqft
Movie Theater (No Matinee)	74.66	1000sqft
Regional Shopping Center	184.49	1000sqft
Regional Shopping Center	155.23	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			

1.3 User Entered Comments

28

Project Characteristics - The Triangle Phases 1b and 1c
 Land Use - Phases 1b, 1c construction only; parking at 3.5 space/ksf
 Phase 1c is 155 ksf retail and 543 parking spaces
 Phase 1b is all other LU and 1165 parking

 Construction Phase - Durations based on CalEEMod Appx D
 grad 1b 6/1-20/14(15);build 1b 6/21/14-8/14/15(300);paveall 5/4-6/19/15(35)
 grad 1c 3/20-31/15(8); build 1c 4/1-12/30/15 (196)

Off-road Equipment -

Off-road Equipment - Pave-Default off-road equip

Trips and VMT - Worker and vendor trips per Appx A

Grading - Grading balanced on site

Acres reduced by 18/26.5 for 1b; 112.5 to 76.4

8.5/26.5 for 1c; 20 to 6.4

Architectural Coating - Coat area=2xgsf per Appx A = 98.794sf

Interior=0.75=74,088; Exterior@0.25=24,696

VOC reduced fm 250 because sq ft fixed

Vehicle Trips -

Construction Off-road Equipment Mitigation - water 2x daily

All Tier 3 off-road

Area Mitigation - Low VOC mit is actually 100/200 because of sq ft factor

Off-road Equipment - OFFROAD 2011 load factors

grad-util 1b, 1 grader,2 trac/load/back

Off-road Equipment - build 1b default equip

Off-road Equipment - grad-util 1c - grader, trac/load/back

Off-road Equipment - build 1c-crane, 2fork, 1 tlb,2 weld

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.34	2.32	2.00	0.00	0.16	0.13	0.30	0.01	0.13	0.14			355.05	0.03	0.00	355.62
2015	0.75	4.59	4.05	0.01	0.23	0.27	0.50	0.01	0.27	0.28			716.96	0.06	0.00	718.19
Total	1.09	6.91	6.05	0.01	0.39	0.40	0.80	0.02	0.40	0.42			1,072.01	0.09	0.00	1,073.81

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.27	1.70	2.07	0.00	0.14	0.12	0.26	0.01	0.12	0.13			355.05	0.03	0.00	355.62
2015	0.61	3.42	4.06	0.01	0.23	0.25	0.48	0.01	0.25	0.26			716.96	0.06	0.00	718.19
Total	0.88	5.12	6.13	0.01	0.37	0.37	0.74	0.02	0.37	0.39			1,072.01	0.09	0.00	1,073.81

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Fine grading-utilities 1b - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.01	0.08	0.06	0.00		0.01	0.01		0.01	0.01			8.30	0.00	0.00	8.32
Total	0.01	0.08	0.06	0.00	0.04	0.01	0.05	0.00	0.01	0.01			8.30	0.00	0.00	8.32

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.52	0.00	0.00	0.52
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.52	0.00	0.00	0.52

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.06	0.00		0.00	0.00		0.00	0.00			8.30	0.00	0.00	8.32
Total	0.01	0.04	0.06	0.00	0.02	0.00	0.02	0.00	0.00	0.00			8.30	0.00	0.00	8.32

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.52	0.00	0.00	0.52
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.52	0.00	0.00	0.52

3.3 Building Construction 1b - 2014

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	0.25	1.66	1.21	0.00		0.11	0.11		0.11	0.11			186.67	0.02	0.00	187.10
Total	0.25	1.66	1.21	0.00		0.11	0.11		0.11	0.11			186.67	0.02	0.00	187.10

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.05	0.55	0.30	0.00	0.03	0.02	0.05	0.00	0.02	0.02			93.39	0.00	0.00	93.43
Worker	0.03	0.04	0.43	0.00	0.09	0.00	0.09	0.00	0.00	0.01			66.17	0.00	0.00	66.25
Total	0.08	0.59	0.73	0.00	0.12	0.02	0.14	0.00	0.02	0.03			159.56	0.00	0.00	159.68

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	0.19	1.06	1.28	0.00		0.09	0.09		0.09	0.09			186.67	0.02	0.00	187.10
Total	0.19	1.06	1.28	0.00		0.09	0.09		0.09	0.09			186.67	0.02	0.00	187.10

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.05	0.55	0.30	0.00	0.03	0.02	0.05	0.00	0.02	0.02			93.39	0.00	0.00	93.43
Worker	0.03	0.04	0.43	0.00	0.09	0.00	0.09	0.00	0.00	0.01			66.17	0.00	0.00	66.25
Total	0.08	0.59	0.73	0.00	0.12	0.02	0.14	0.00	0.02	0.03			159.56	0.00	0.00	159.68

3.3 Building Construction 1b - 2015

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	0.27	1.77	1.40	0.00		0.11	0.11		0.11	0.11			219.14	0.02	0.00	219.60
Total	0.27	1.77	1.40	0.00		0.11	0.11		0.11	0.11			219.14	0.02	0.00	219.60

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.05	0.59	0.33	0.00	0.04	0.02	0.06	0.00	0.02	0.02			109.73	0.00	0.00	109.78
Worker	0.03	0.04	0.46	0.00	0.11	0.00	0.11	0.00	0.00	0.01			75.83	0.00	0.00	75.91
Total	0.08	0.63	0.79	0.00	0.15	0.02	0.17	0.00	0.02	0.03			185.56	0.00	0.00	185.69

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	0.22	1.25	1.50	0.00		0.11	0.11		0.11	0.11			219.14	0.02	0.00	219.60
Total	0.22	1.25	1.50	0.00		0.11	0.11		0.11	0.11			219.14	0.02	0.00	219.60

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.05	0.59	0.33	0.00	0.04	0.02	0.06	0.00	0.02	0.02			109.73	0.00	0.00	109.78
Worker	0.03	0.04	0.46	0.00	0.11	0.00	0.11	0.00	0.00	0.01			75.83	0.00	0.00	75.91
Total	0.08	0.63	0.79	0.00	0.15	0.02	0.17	0.00	0.02	0.03			185.56	0.00	0.00	185.69

3.4 Fine grading-utilities 1c - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00			3.42	0.00	0.00	3.43
Total	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			3.42	0.00	0.00	3.43

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00			3.42	0.00	0.00	3.43
Total	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			3.42	0.00	0.00	3.43

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.17	0.00	0.00	0.17

3.5 Building construction 1c - 2015

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	0.24	1.28	1.03	0.00		0.08	0.08		0.08	0.08			158.48	0.02	0.00	158.89
Total	0.24	1.28	1.03	0.00		0.08	0.08		0.08	0.08			158.48	0.02	0.00	158.89

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01			60.35	0.00	0.00	60.37
Worker	0.02	0.02	0.25	0.00	0.06	0.00	0.06	0.00	0.00	0.00			41.33	0.00	0.00	41.37
Total	0.05	0.34	0.43	0.00	0.08	0.01	0.09	0.00	0.01	0.01			101.68	0.00	0.00	101.74

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	0.21	0.98	1.07	0.00		0.08	0.08		0.08	0.08			158.48	0.02	0.00	158.89
Total	0.21	0.98	1.07	0.00		0.08	0.08		0.08	0.08			158.48	0.02	0.00	158.89

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01			60.35	0.00	0.00	60.37
Worker	0.02	0.02	0.25	0.00	0.06	0.00	0.06	0.00	0.00	0.00			41.33	0.00	0.00	41.37
Total	0.05	0.34	0.43	0.00	0.08	0.01	0.09	0.00	0.01	0.01			101.68	0.00	0.00	101.74

3.6 Paving - 2015

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	0.09	0.53	0.36	0.00		0.04	0.04		0.04	0.04			46.31	0.01	0.00	46.45
Paving	0.02					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.11	0.53	0.36	0.00		0.04	0.04		0.04	0.04			46.31	0.01	0.00	46.45

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.21	0.00	0.00	2.22
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.21	0.00	0.00	2.22

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	0.03	0.19	0.23	0.00		0.02	0.02		0.02	0.02			46.31	0.01	0.00	46.45
Paving	0.02					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.05	0.19	0.23	0.00		0.02	0.02		0.02	0.02			46.31	0.01	0.00	46.45

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.21	0.00	0.00	2.22
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.21	0.00	0.00	2.22

Triangle Phase 2 051112
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	482	1000sqft
Parking Structure	1687	Space
Regional Shopping Center	99.06	1000sqft
Hotel	220	Room
Parking Lot	865	Space

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Utility Company	Southern California Edison
Climate Zone	10	Precipitation Freq (Days)			

1.3 User Entered Comments

28

Project Characteristics - The Triangle ~~Phases 1b and 1c~~

Land Use - Phase 2 construction only; parking at 3.5 space/ksf

Office bldg acreage reduced to 2 - high rise

Parking structure acreage corrected for structure

Construction Phase - Durations based on CalEEMod Appx D and engr judgment

grad-util 4/15-6/30/17 (55); build 7/1/17-6/30/19(520)

pave4/1-4/29/19 (21); paint 2/1-7/30/19 (128)

Off-road Equipment -

Off-road Equipment - Build - 2 crane, 3 fork, 3 tlb, 3 weld

Off-road Equipment - Grade-Default off-road equip

Off-road Equipment - Pave-Default off-road equip

Trips and VMT -

Grading - Grading balanced on site

Acres reduced by 18/26.5 for 1b; 112.5 to 76.4

8.5/26.5 for 1c; 20 to 6.4

Architectural Coating -

Vehicle Trips -

Construction Off-road Equipment Mitigation - water 2x daily

All Tier 3 off-road

Area Mitigation - Low VOC mit is actually 100/200 because of sq ft factor

Off-road Equipment - OFFROAD 2011 load factors

Mass grading in Phase 1a

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.41	2.58	2.72	0.01	0.31	0.13	0.43	0.02	0.13	0.15			567.12	0.03	0.00	567.80
2018	0.67	4.16	4.61	0.01	0.52	0.19	0.71	0.01	0.19	0.20			1,034.32	0.05	0.00	1,035.42
2019	8.82	2.27	2.65	0.01	0.29	0.11	0.41	0.01	0.11	0.12			579.16	0.03	0.00	579.78
Total	9.90	9.01	9.98	0.03	1.12	0.43	1.55	0.04	0.43	0.47			2,180.60	0.11	0.00	2,183.00

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.40	2.35	2.85	0.01	0.28	0.15	0.44	0.02	0.15	0.17			567.12	0.03	0.00	567.80
2018	0.71	4.09	4.85	0.01	0.52	0.26	0.78	0.01	0.25	0.26			1,034.32	0.05	0.00	1,035.42
2019	8.84	2.18	2.71	0.01	0.29	0.15	0.44	0.01	0.15	0.15			579.16	0.03	0.00	579.78
Total	9.95	8.62	10.41	0.03	1.09	0.56	1.66	0.04	0.55	0.58			2,180.60	0.11	0.00	2,183.00

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Fine grading and utilities - 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					0.05	0.00	0.05	0.01	0.00	0.01			0.00	0.00	0.00	0.00
Off-Road	0.05	0.32	0.32	0.00		0.02	0.02		0.02	0.02			47.04	0.00	0.00	47.12
Total	0.05	0.32	0.32	0.00	0.05	0.02	0.07	0.01	0.02	0.03			47.04	0.00	0.00	47.12

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.24	0.00	0.00	2.25
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.24	0.00	0.00	2.25

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.04	0.25	0.34	0.00		0.02	0.02		0.02	0.02			47.04	0.00	0.00	47.12
Total	0.04	0.25	0.34	0.00	0.02	0.02	0.04	0.00	0.02	0.02			47.04	0.00	0.00	47.12

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.24	0.00	0.00	2.25
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			2.24	0.00	0.00	2.25

3.3 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.24	1.33	1.19	0.00		0.07	0.07		0.07	0.07			194.75	0.02	0.00	195.15
Total	0.24	1.33	1.19	0.00		0.07	0.07		0.07	0.07			194.75	0.02	0.00	195.15

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.07	0.86	0.50	0.00	0.07	0.03	0.09	0.01	0.03	0.03			191.60	0.00	0.00	191.66
Worker	0.05	0.06	0.70	0.00	0.19	0.01	0.20	0.01	0.01	0.02			131.49	0.01	0.00	131.62
Total	0.12	0.92	1.20	0.00	0.26	0.04	0.29	0.02	0.04	0.05			323.09	0.01	0.00	323.28

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	0.24	1.18	1.29	0.00		0.10	0.10		0.10	0.10			194.75	0.02	0.00	195.15
Total	0.24	1.18	1.29	0.00		0.10	0.10		0.10	0.10			194.75	0.02	0.00	195.15

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.07	0.86	0.50	0.00	0.07	0.03	0.09	0.01	0.03	0.03			191.60	0.00	0.00	191.66
Worker	0.05	0.06	0.70	0.00	0.19	0.01	0.20	0.01	0.01	0.02			131.49	0.01	0.00	131.62
Total	0.12	0.92	1.20	0.00	0.26	0.04	0.29	0.02	0.04	0.05			323.09	0.01	0.00	323.28

3.3 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	0.43	2.44	2.36	0.00		0.13	0.13		0.13	0.13			391.00	0.03	0.00	391.73
Total	0.43	2.44	2.36	0.00		0.13	0.13		0.13	0.13			391.00	0.03	0.00	391.73

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.13	1.61	0.95	0.00	0.13	0.05	0.18	0.00	0.04	0.05			384.98	0.01	0.00	385.10
Worker	0.10	0.12	1.30	0.00	0.38	0.02	0.40	0.01	0.01	0.02			258.34	0.01	0.00	258.58
Total	0.23	1.73	2.25	0.00	0.51	0.07	0.58	0.01	0.05	0.07			643.32	0.02	0.00	643.68

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	0.48	2.37	2.60	0.00		0.20	0.20		0.20	0.20			391.00	0.03	0.00	391.73
Total	0.48	2.37	2.60	0.00		0.20	0.20		0.20	0.20			391.00	0.03	0.00	391.73

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.13	1.61	0.95	0.00	0.13	0.05	0.18	0.00	0.04	0.05			384.98	0.01	0.00	385.10
Worker	0.10	0.12	1.30	0.00	0.38	0.02	0.40	0.01	0.01	0.02			258.34	0.01	0.00	258.58
Total	0.23	1.73	2.25	0.00	0.51	0.07	0.58	0.01	0.05	0.07			643.32	0.02	0.00	643.68

3.3 Building Construction - 2019

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	0.19	1.10	1.15	0.00		0.06	0.06		0.06	0.06			193.25	0.02	0.00	193.58
Total	0.19	1.10	1.15	0.00		0.06	0.06		0.06	0.06			193.25	0.02	0.00	193.58

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.06	0.74	0.44	0.00	0.06	0.02	0.09	0.00	0.02	0.02			190.42	0.00	0.00	190.48
Worker	0.05	0.05	0.60	0.00	0.19	0.01	0.20	0.00	0.01	0.01			125.12	0.01	0.00	125.23
Total	0.11	0.79	1.04	0.00	0.25	0.03	0.29	0.00	0.03	0.03			315.54	0.01	0.00	315.71

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	0.24	1.17	1.28	0.00		0.10	0.10		0.10	0.10			193.25	0.02	0.00	193.58
Total	0.24	1.17	1.28	0.00		0.10	0.10		0.10	0.10			193.25	0.02	0.00	193.58

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.06	0.74	0.44	0.00	0.06	0.02	0.09	0.00	0.02	0.02			190.42	0.00	0.00	190.48
Worker	0.05	0.05	0.60	0.00	0.19	0.01	0.20	0.00	0.01	0.01			125.12	0.01	0.00	125.23
Total	0.11	0.79	1.04	0.00	0.25	0.03	0.29	0.00	0.03	0.03			315.54	0.01	0.00	315.71

3.4 Architectural Coating - 2019

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	8.44					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.02	0.12	0.12	0.00		0.01	0.01		0.01	0.01			16.32	0.00	0.00	16.35
Total	8.46	0.12	0.12	0.00		0.01	0.01		0.01	0.01			16.32	0.00	0.00	16.35

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.04	0.00	0.04	0.00	0.00	0.00			25.03	0.00	0.00	25.05
Total	0.01	0.01	0.12	0.00	0.04	0.00	0.04	0.00	0.00	0.00			25.03	0.00	0.00	25.05

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	8.44					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.02	0.09	0.12	0.00		0.01	0.01		0.01	0.01			16.32	0.00	0.00	16.35
Total	8.46	0.09	0.12	0.00		0.01	0.01		0.01	0.01			16.32	0.00	0.00	16.35

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.12	0.00	0.04	0.00	0.04	0.00	0.00	0.00			25.03	0.00	0.00	25.05
Total	0.01	0.01	0.12	0.00	0.04	0.00	0.04	0.00	0.00	0.00			25.03	0.00	0.00	25.05

3.5 Paving - 2019

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	0.04	0.24	0.21	0.00		0.02	0.02		0.02	0.02			27.78	0.00	0.00	27.85
Paving	0.01					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.05	0.24	0.21	0.00		0.02	0.02		0.02	0.02			27.78	0.00	0.00	27.85

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.23	0.00	0.00	1.23
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.23	0.00	0.00	1.23

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	0.02	0.11	0.14	0.00		0.01	0.01		0.01	0.01			27.78	0.00	0.00	27.85
Paving	0.01					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.03	0.11	0.14	0.00		0.01	0.01		0.01	0.01			27.78	0.00	0.00	27.85

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.23	0.00	0.00	1.23
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.23	0.00	0.00	1.23

Triangle Phase 3 051412
Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	249.08	1000sqft
Parking Lot	883	Space
Parking Structure	872	Space
High Turnover (Sit Down Restaurant)	50.136	1000sqft
Regional Shopping Center	202.14	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Utility Company	Southern California Edison
Climate Zone	10	Precipitation Freq (Days)			

1.3 User Entered Comments

28

Project Characteristics - The Triangle Phase 3 - op yr 2021

Land Use - Phase 3 construction only; parking at 3.5 space/ksf

Office bldg acreage reduced to 2 - high rise

Parking structure acreage corrected for structure

Parking square feet set to 0 for arch coating correctness

Construction Phase - Durations based on CalEEMod Appx D and engr judgment

grad-util 1/2-3/1/20(42); build 3/2/20-7/31/21(370)

pave 4/7-5/4/21(20); paint 4/15-8/31/21(99)

Off-road Equipment - Arch coat default 1 comp

Off-road Equipment - Build - 2 crane, 3 fork, 3 tlb, 3 weld

Off-road Equipment - build 1b default equip

Off-road Equipment - OFFROAD 2011 load factors

Mass grading in Phase 1a

grad-util 2 grader, 2 t/l/b

Off-road Equipment - Pave-Default off-road equip

Trips and VMT - bldg trips increased for parking structure

Grading - Grading balanced on site

Architectural Coating -

Vehicle Trips -

Construction Off-road Equipment Mitigation - water 2x daily

All Tier 3 off-road

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.47	2.96	3.56	0.01	0.40	0.13	0.53	0.01	0.13	0.14			807.15	0.04	0.00	807.94
2021	6.15	2.05	2.56	0.01	0.26	0.09	0.36	0.00	0.09	0.10			581.51	0.03	0.00	582.06
Total	6.62	5.01	6.12	0.02	0.66	0.22	0.89	0.01	0.22	0.24			1,388.66	0.07	0.00	1,390.00

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.58	3.24	3.82	0.01	0.38	0.22	0.60	0.01	0.22	0.23			807.15	0.04	0.00	807.94
2021	6.22	2.25	2.68	0.01	0.26	0.16	0.42	0.00	0.16	0.16			581.51	0.03	0.00	582.06
Total	6.80	5.49	6.50	0.02	0.64	0.38	1.02	0.01	0.38	0.39			1,388.66	0.07	0.00	1,390.00

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Water Exposed Area

3.2 Fine grading and utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01			35.92	0.00	0.00	35.97
Total	0.03	0.18	0.24	0.00	0.04	0.01	0.05	0.00	0.01	0.01			35.92	0.00	0.00	35.97

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00			3.22	0.00	0.00	3.23
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00			3.22	0.00	0.00	3.23

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.03	0.19	0.26	0.00		0.02	0.02		0.02	0.02			35.92	0.00	0.00	35.97
Total	0.03	0.19	0.26	0.00	0.02	0.02	0.04	0.00	0.02	0.02			35.92	0.00	0.00	35.97

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00			3.22	0.00	0.00	3.23
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00			3.22	0.00	0.00	3.23

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.30	1.71	1.94	0.00		0.08	0.08		0.08	0.08			328.08	0.02	0.00	328.59
Total	0.30	1.71	1.94	0.00		0.08	0.08		0.08	0.08			328.08	0.02	0.00	328.59

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.08	1.00	0.60	0.00	0.09	0.03	0.12	0.00	0.03	0.03			271.86	0.00	0.00	271.94
Worker	0.06	0.07	0.76	0.00	0.26	0.01	0.27	0.00	0.01	0.01			168.07	0.01	0.00	168.21
Total	0.14	1.07	1.36	0.00	0.35	0.04	0.39	0.00	0.04	0.04			439.93	0.01	0.00	440.15

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	0.40	1.99	2.18	0.00		0.16	0.16		0.16	0.16			328.08	0.02	0.00	328.59
Total	0.40	1.99	2.18	0.00		0.16	0.16		0.16	0.16			328.08	0.02	0.00	328.59

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.08	1.00	0.60	0.00	0.09	0.03	0.12	0.00	0.03	0.03			271.86	0.00	0.00	271.94
Worker	0.06	0.07	0.76	0.00	0.26	0.01	0.27	0.00	0.01	0.01			168.07	0.01	0.00	168.21
Total	0.14	1.07	1.36	0.00	0.35	0.04	0.39	0.00	0.04	0.04			439.93	0.01	0.00	440.15

3.3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.19	1.08	1.32	0.00		0.05	0.05		0.05	0.05			226.21	0.02	0.00	226.53
Total	0.19	1.08	1.32	0.00		0.05	0.05		0.05	0.05			226.21	0.02	0.00	226.53

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.05	0.65	0.40	0.00	0.06	0.02	0.08	0.00	0.02	0.02			188.11	0.00	0.00	188.16
Worker	0.04	0.04	0.50	0.00	0.18	0.01	0.19	0.00	0.01	0.01			114.57	0.00	0.00	114.67
Total	0.09	0.69	0.90	0.00	0.24	0.03	0.27	0.00	0.03	0.03			302.68	0.00	0.00	302.83

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	0.28	1.37	1.50	0.00		0.11	0.11		0.11	0.11			226.21	0.02	0.00	226.53
Total	0.28	1.37	1.50	0.00		0.11	0.11		0.11	0.11			226.21	0.02	0.00	226.53

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.05	0.65	0.40	0.00	0.06	0.02	0.08	0.00	0.02	0.02			188.11	0.00	0.00	188.16
Worker	0.04	0.04	0.50	0.00	0.18	0.01	0.19	0.00	0.01	0.01			114.57	0.00	0.00	114.67
Total	0.09	0.69	0.90	0.00	0.24	0.03	0.27	0.00	0.03	0.03			302.68	0.00	0.00	302.83

3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.20	0.20	0.00		0.01	0.01		0.01	0.01			26.46	0.00	0.00	26.52
Paving	0.01					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.04	0.20	0.20	0.00		0.01	0.01		0.01	0.01			26.46	0.00	0.00	26.52

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.14	0.00	0.00	1.14
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.14	0.00	0.00	1.14

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	0.02	0.11	0.13	0.00		0.01	0.01		0.01	0.01			26.46	0.00	0.00	26.52
Paving	0.01					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	0.03	0.11	0.13	0.00		0.01	0.01		0.01	0.01			26.46	0.00	0.00	26.52

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.14	0.00	0.00	1.14
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			1.14	0.00	0.00	1.14

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.80					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.01	0.08	0.09	0.00		0.00	0.00		0.00	0.00			12.62	0.00	0.00	12.64
Total	5.81	0.08	0.09	0.00		0.00	0.00		0.00	0.00			12.62	0.00	0.00	12.64

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00			12.39	0.00	0.00	12.40
Total	0.00	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00			12.39	0.00	0.00	12.40

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	5.80					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.09	0.00		0.01	0.01		0.01	0.01			12.62	0.00	0.00	12.64
Total	5.81	0.07	0.09	0.00		0.01	0.01		0.01	0.01			12.62	0.00	0.00	12.64

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00			12.39	0.00	0.00	12.40
Total	0.00	0.00	0.05	0.00	0.02	0.00	0.02	0.00	0.00	0.00			12.39	0.00	0.00	12.40

**Triangle buildout 2021 operational 051412
Riverside-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	779.08	1000sqft
High Turnover (Sit Down Restaurant)	125.26	1000sqft
Hotel	220	Room
Movie Theater (No Matinee)	74.66	1000sqft
Regional Shopping Center	640.91	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Utility Company	Southern California Edison
Climate Zone	10	Precipitation Freq (Days)	28		

1.3 User Entered Comments

Project Characteristics - The Triangle buildout- op yr 2021

Land Use - Buildout operations

Construction Phase - No construction retain one phase

Vehicle Trips - trip rates per traffic study-gross w/o internal adjust or passby
all passby set to 26.8% to adjust net to approximate internal plus passby

Energy Mitigation - 5% over Title 24 for LEED

Water Mitigation - Indoor and outdoor water mitigation - CalGreen for all bldgs

Energy Use - Energy use-unmitigated-CalEEMod default

Water And Wastewater - Water use data from WSA, 2008
Indoor use, 49,854,520 gpy; outdoor 22,954,850

2.0 Emissions Summary

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										M/yr					
Area	9.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Energy	0.33	3.02	2.54	0.02		0.00	0.23		0.00	0.23			12,665.70	0.49	0.22	12,744.48
Mobile	23.22	57.24	220.35	0.49	49.43	2.60	52.03	0.77	2.53	3.30			37,623.45	1.47	0.00	37,654.41
Waste						0.00	0.00		0.00	0.00			697.09	41.20	0.00	1,562.23
Water						0.00	0.00		0.00	0.00			262.53	1.53	0.04	307.60
Total	32.80	60.26	222.89	0.51	49.43	2.60	52.26	0.77	2.53	3.53			51,248.77	44.69	0.26	52,268.72

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										M/yr					
Area	9.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Energy	0.32	2.94	2.47	0.02		0.00	0.22		0.00	0.22			12,412.73	0.48	0.22	12,489.94
Mobile	23.22	57.24	220.35	0.49	49.43	2.60	52.03	0.77	2.53	3.30			37,623.45	1.47	0.00	37,654.41
Waste						0.00	0.00		0.00	0.00			697.09	41.20	0.00	1,562.23
Water						0.00	0.00		0.00	0.00			220.34	1.22	0.03	256.45
Total	32.79	60.18	222.82	0.51	49.43	2.60	52.25	0.77	2.53	3.52			50,953.61	44.37	0.25	51,963.03

4.0 Mobile Detail

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	23.22	57.24	220.35	0.49	49.43	2.60	52.03	0.77	2.53	3.30			37,623.45	1.47	0.00	37,654.41
Unmitigated	23.22	57.24	220.35	0.49	49.43	2.60	52.03	0.77	2.53	3.30			37,623.45	1.47	0.00	37,654.41
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	6,481.95	1,394.55	576.52	9,130,764	9,130,764
High Turnover (Sit Down Restaurant)	15,926.81	19,837.43	16514.28	28,745,409	28,745,409
Hotel	1,797.40	1,801.80	1309.00	3,093,758	3,093,758
Movie Theater (No Matinee)	5,972.80	5,972.80	5972.80	10,159,059	10,159,059
Regional Shopping Center	22,720.26	26,437.54	13366.66	38,883,291	38,883,291
Total	52,899.21	55,444.12	37,729.16	90,012,280	90,012,280

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00
Hotel	9.50	7.30	7.30	19.40	61.60	19.00
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated							0.00	0.00	0.00	0.00			9,212.88	0.42	0.16	9,270.62
Electricity Unmitigated							0.00	0.00	0.00	0.00			9,374.80	0.42	0.16	9,433.55
NaturalGas Mitigated	0.32	2.94	2.47	0.02		0.00	0.22	0.00	0.00	0.22			3,199.85	0.06	0.06	3,219.32
NaturalGas Unmitigated	0.33	3.02	2.54	0.02		0.00	0.23	0.00	0.00	0.23			3,290.90	0.06	0.06	3,310.93
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	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
	kBTU	tons/yr										MT/yr					
General Office Building	2.84364e+006	0.02	0.14	0.12	0.00		0.00	0.01		0.00	0.01			151.75	0.00	0.00	152.67
High Turnover (Sit Down Restaurant)	3.47603e+007	0.19	1.70	1.43	0.01		0.00	0.13		0.00	0.13			1,854.94	0.04	0.03	1,866.23
Hotel	2.00928e+007	0.11	0.98	0.83	0.01		0.00	0.07		0.00	0.07			1,072.23	0.02	0.02	1,078.75
Movie Theater (No Matinee)	2.48543e+006	0.01	0.12	0.10	0.00		0.00	0.01		0.00	0.01			132.63	0.00	0.00	133.44
Regional Shopping Center	1.48692e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01			79.35	0.00	0.00	79.83
Total		0.34	3.01	2.54	0.02		0.00	0.23		0.00	0.23			3,290.90	0.06	0.05	3,310.92

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	tons/yr										MT/yr					
General Office Building	2.70146e+006	0.01	0.13	0.11	0.00		0.00	0.01		0.00	0.01			144.16	0.00	0.00	145.04
High Turnover (Sit Down Restaurant)	3.42484e+007	0.18	1.68	1.41	0.01		0.00	0.13		0.00	0.13			1,627.63	0.04	0.03	1,838.75
Hotel	1.91658e+007	0.10	0.94	0.79	0.01		0.00	0.07		0.00	0.07			1,022.76	0.02	0.02	1,028.98
Movie Theater (No Matinee)	2.42511e+006	0.01	0.12	0.10	0.00		0.00	0.01		0.00	0.01			129.41	0.00	0.00	130.20
Regional Shopping Center	1.42219e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01			75.89	0.00	0.00	76.36
Total		0.31	2.94	2.47	0.02		0.00	0.23		0.00	0.23			3,199.85	0.06	0.05	3,219.33

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	8.32837e+006					2,422.48	0.11	0.04	2,437.66
High Turnover (Sit Down Restaurant)	6.56352e+006					1,909.14	0.09	0.03	1,921.10
Hotel	6.47505e+006					1,863.40	0.08	0.03	1,895.21
Movie Theater (No Matinee)	828486					240.40	0.01	0.00	241.91
Regional Shopping Center	1.00367e+007					2,919.39	0.13	0.05	2,937.68
Total						9,374.81	0.43	0.15	9,433.56

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	8.18229e+006					2,379.99	0.11	0.04	2,394.90
High Turnover (Sit Down Restaurant)	6.46876e+006					1,881.57	0.09	0.03	1,893.37
Hotel	6.34871e+006					1,846.65	0.08	0.03	1,858.23
Movie Theater (No Matinee)	816444					237.48	0.01	0.00	238.97
Regional Shopping Center	9.85726e+006					2,867.19	0.13	0.05	2,885.16
Total						9,212.88	0.42	0.15	9,270.63

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr											M1/yr				
Mitigated	9.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Unmitigated	9.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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											M1/yr				
Architectural Coating	2.25					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Consumer Products	7.01					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	9.26	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00

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											M1/yr				
Architectural Coating	2.25					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Consumer Products	7.01					0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00
Total	9.26	0.00	0.00	0.00		0.00	0.00		0.00	0.00			0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

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

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					220.34	1.22	0.03	256.45
Unmitigated					262.53	1.53	0.04	307.60
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	10 / 5					54.14	0.31	0.01	63.24
High Turnover (Sit Down Restaurant)	10 / 5					54.14	0.31	0.01	63.24
Hotel	12,045 / 5					61.91	0.37	0.01	72.85
Movie Theater (No Matinee)	7.53952 / 2.95485					38.19	0.23	0.01	45.03
Regional Shopping Center	10 / 5					54.14	0.31	0.01	63.24
Total						262.52	1.53	0.05	307.60

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	8 / 4.695					45.56	0.25	0.01	52.85
High Turnover (Sit Down Restaurant)	8 / 4.695					45.56	0.25	0.01	52.85
Hotel	9.636 / 4.695					51.78	0.30	0.01	60.54
Movie Theater (No Matinee)	6.03162 / 2.7746					31.88	0.19	0.01	37.36
Regional Shopping Center	8 / 4.695					45.56	0.25	0.01	52.85
Total						220.34	1.24	0.05	256.45

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					697.09	41.20	0.00	1,562.23
Unmitigated					697.09	41.20	0.00	1,562.23
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	724.54					147.08	8.69	0.00	329.60
High Turnover (Sit Down Restaurant)	1490.59					302.58	17.88	0.00	678.09
Hotel	120.45					24.45	1.44	0.00	54.79
Movie Theater (No Matinee)	425.56					86.38	5.11	0.00	193.59
Regional Shopping Center	672.96					136.60	8.07	0.00	306.14
Total						697.09	41.19	0.00	1,562.21

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	724.54					147.08	8.69	0.00	329.60
High Turnover (Sit Down Restaurant)	1490.59					302.58	17.88	0.00	678.09
Hotel	120.45					24.45	1.44	0.00	54.79
Movie Theater (No Matinee)	425.56					86.38	5.11	0.00	193.59
Regional Shopping Center	672.96					136.60	8.07	0.00	306.14
Total						697.09	41.19	0.00	1,562.21

