AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS

FOR THE

Rancon Medical Educational Center
Plot Plan No. 36492
City of Wildomar

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Section 1 – Introduction

Purpose and Methods of Analysis

The following air quality/greenhouse gas (GHG) assessment was prepared to evaluate whether the expected criteria air pollutant emissions generated as a result of construction and operation of the proposed Rancon Medical and Educational Center would exceed the South Coast Air Quality Management District's (SCAQMD) significance thresholds for air quality and whether the Project-related GHG emissions would be substantial. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 et seq.). The criteria air pollutant methodology follows the *CEQA Air Quality Handbook* prepared by the SCAQMD (SCAQMD 1993) for quantification of emissions and evaluation of potential impacts to air quality. The methodology used in the GHG analysis is consistent with SCAQMD GHG Guidance (SCAQMD 2008a). As recommended by SCAQMD and the City of Wildomar (City) staff, the **Cal**ifornia **E**missions **E**stimator **Mod**el version 2011.1.1 (CalEEMod) was used to quantify Project-related emissions.

Project Description

The proposed Rancon Medical and Educational Center (REMC), Tentative Parcel Map and Plot Plan No. 36492 (Project) consists of 29.46 gross acres of land within the city of Wildomar, Riverside County (**Figure 1 – Project Location**). The proposed Project is generally bounded by Clinton Keith Road to the north, future alignment of Bunny Trail to the south, Elizabeth Lane to the east and Yamas Drive to the west.

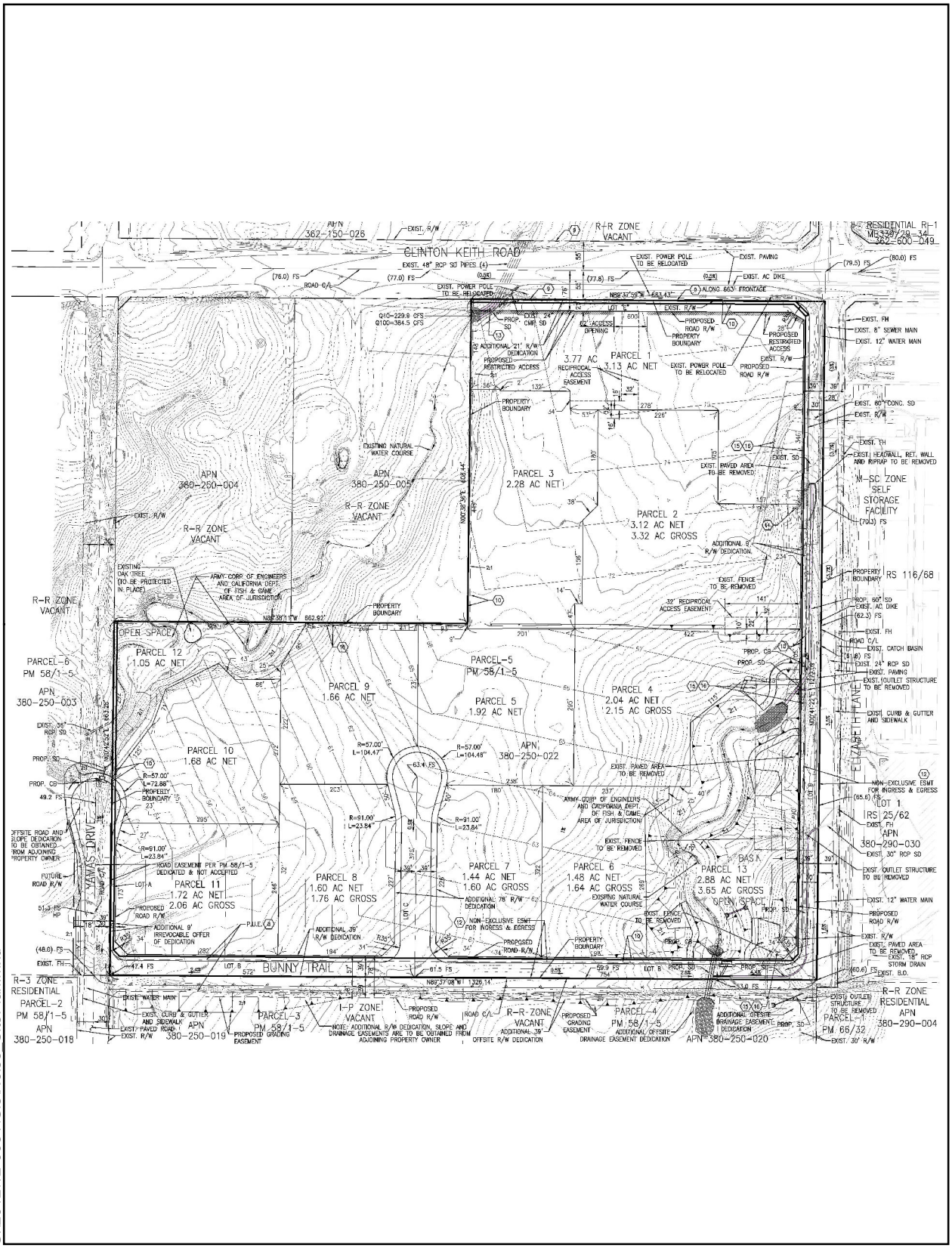
For the purposes of this analysis, the Project land uses were evaluated consistent with the Project-specific *Traffic Impact Analysis Report* that analyzed 294,900 square feet of business park uses, 42,420 square feet of general offices, 31,420 square feet of medical and dental offices, 19,400 square feet of commercial retail uses, and a 3,000-square-foot drive-thru fast food restaurant. (**Figure 2 –Proposed Tentative Parcel Map**; **Figure 3 – Proposed Plot Plan**).

Sources: County of Riverside GIS, 2012;
Eagle Aerial, April 2010.

Figure 1 - Project Location
Rancon Medical and Educational Center
Plot Plan No. 36492

0 250 500 750 Feet

Albert A. WEBB Associates

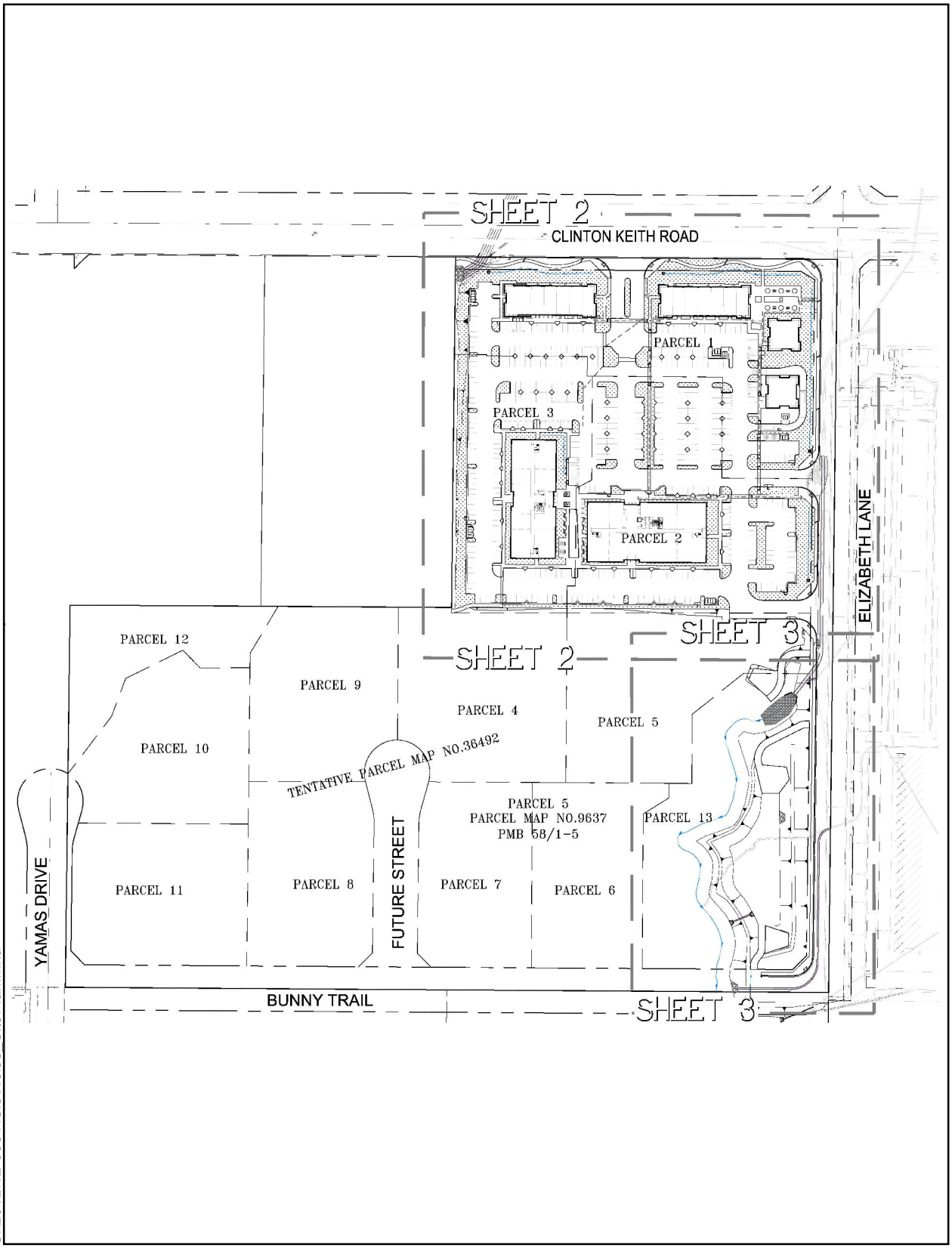


G:\2012\12-0031\Gis\Noise_SitePlan.mxd

Sources: Albert A. Webb Associates, 2012.

Figure 2 - Proposed Tentative Parcel Map

Rancon Medical and Educational Center
Plot Plan No. 36492



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Sources: Albert A. Webb Associates, 2012.

Figure 3 - Proposed Plot Plan
Rancon Medical and Educational Center
Plot Plan No. 36492

Section 2 – Setting

Background and Physical Setting

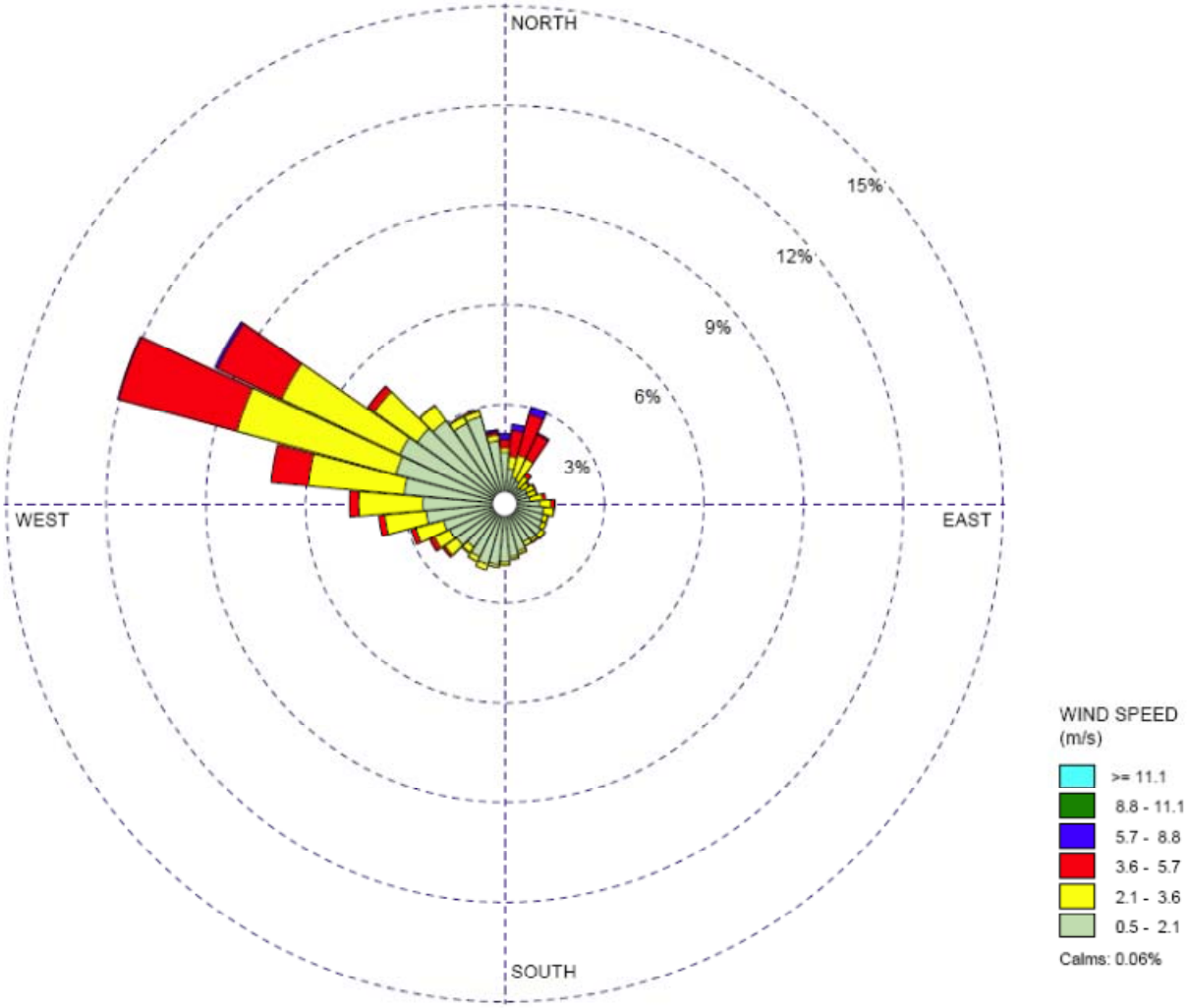
Air quality impacts can be described in a short-term and long-term perspective. Short-term impacts will occur during site grading and Project construction. Long-term air quality impacts will occur once the Project is in operation.

Many air quality impacts from dispersed mobile sources (cars and trucks), i.e., the dominant pollution generators from the proposed Project, often occur hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual source is generally immeasurably small. The SCAQMD has therefore developed suggested surrogate significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. Air quality impacts can be analyzed on a regional and localized level. Regional air quality thresholds examine the effect of project emissions on the air quality of the South Coast Air Basin (Basin), while localized air quality impacts examine the effect of project emissions on the neighborhood around the project site. This report contains analysis of both regional and local air quality impacts from Project construction (short-term) and operation (long-term).

The Project site is located within the city of Wildomar, southwestern Riverside County, within the Basin, under the jurisdiction of the SCAQMD. The Basin consists of Orange County, together with the coastal and mountain portions of Los Angeles, Riverside, and San Bernardino counties. Regionally, the interaction of land (offshore) and sea (onshore) breezes control local wind patterns in the area. Daytime winds typically flow from the coast to the inland areas, while this pattern usually reverses in the evenings, flowing from the inland areas to the ocean (SCAQMD 1993). Air stagnation may occur during the early evening and early morning due to periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. Locally, the prevailing wind is generally from west to east (**Figure 4 – Wind Rose**).

Regional and local air quality within the Basin is affected by topography, atmospheric inversions, and dominant onshore flows. Topographic features such as the San Gabriel and San Bernardino Mountains form natural barriers to the dispersion of air contaminants. The presence of atmospheric inversions limits the vertical dispersion of air pollutants. Due to expansional cooling, the temperature usually decreases with increasing altitude. However, at some elevation, this trend reverses and temperature begins to increase as altitude increases, this transition establishes the effective mixing height of the atmosphere and acts as a barrier to vertical dispersion of pollutants. A dominant onshore flow provides the driving mechanism for both air pollution transport and pollutant dispersion.

Riverside, California – 2005–2007
January 1-December 31; Midnight - 11PM



Note: Data taken from the Riverside Monitoring Station, from January 1, 2005 to December 31, 2007.
Calm winds: 0.06%. Average wind speed: 2.03%. Direction of the colored bars show the direction the wind is blowing from, colors represent various wind speeds, and percentages marked on rings indicate the percentage that the wind blows from that direction and at that particular wind speed.

Figure 4 – Wind Rose

Air pollution generated in coastal areas is transported east to inland receptors by the onshore flow during the daytime until a natural barrier (the mountains) is reached, limiting the horizontal dispersion of pollutants. This results in a gradual degradation of air quality from coastal areas to inland areas, which is most evident with photochemical pollutants like ozone. The greatest ozone levels are registered at the SCAQMD's monitoring stations located at the base of the San Gabriel and San Bernardino mountains, ranging from the city of Santa Clarita, east to the city of San Bernardino.

The Project area is located on the edges of SCAQMD Source Receptor Area's (SRA) 25 and 26. The most recent published data for SRA 25 is presented in **Table 1 – Source Receptor Area (SRA) 24, Air Quality Monitoring Summary – 2002–2011**. This data indicates that the baseline air quality conditions in the Project area include occasional events of very unhealthy air. However, the frequency of smog alerts has dropped significantly in the last decade. Atmospheric concentrations of ozone and particulate matter are the two most significant air quality concerns in the Project area. It is encouraging to note that ozone levels have decreased in the last few years with approximately 15 percent of days or less each year experiencing a violation of the state hourly ozone standard since 2002. Locally, no second stage alert (0.35 parts per million (ppm)/hour) has been called by SCAQMD in the last twenty years. In fact, the last second stage alert was in 1988 in Upland.

The California Air Resources Board (CARB) established a new 8-hour average California ozone standard of 0.07 ppm, effective May 17, 2006. The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard of 0.08 ppm effective in June 2005. The federal 8-hour ozone standard was recently revised from 0.08 ppm to 0.075 ppm and became effective on May 27, 2008.

The California NO_2 (nitrogen dioxide) standards were amended and lowered the 1-hour standard from 0.25 ppm to 0.18 ppm and established a new annual standard of 0.030 ppm. The new standards became effective on March 20, 2008. A new federal 1-hour NO_2 standard of 0.100 ppm was established and became effective April 7, 2010.

Monitoring for PM-2.5 (particulate matter less than 2.5 microns in diameter) did not begin until 1999. Since then, the annual standard has been consistently exceeded as shown in **Table 1**. The 1997 Federal Annual Average Standard for PM-2.5 (15 $\mu g/m^3$) was upheld by the U.S. Supreme Court in February 2001. Effective in December 2006, the federal 24-hour PM-2.5 standard was revised from 65 $\mu g/m^3$ to 35 $\mu g/m^3$.[1] The state annual average standard for PM-2.5 (12 $\mu g/m^3$) was finalized in 2003 and became effective on July 5, 2003. Additionally, the Federal Annual PM-10 (particulate matter less than 10 microns in diameter) Standard was revoked in December 2006.

[1] $\mu g/m^3$ = micrograms per cubic meter

Table 1 – Source Receptor Area (SRA) 25, Air Quality Monitoring Summary – 2002–2011

	Pollutant/Standard Source: SCAQMD	Monitoring Year									
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
No. Days Exceeded	**Ozone:**										
	Health Advisory - 0.15 ppm	0	2	0	1	0	3	0	0	0	0
	California Standard:										
	1-Hour - 0.09 ppm	52	50	41	37	40	26	49	24	15	19
	8-Hour - 0.07 ppm [a]	--	--	51	46	58	55	92	65	42	45
	Federal Primary Standards:										
	8-Hour - 0.08 ppm (0.075 ppm)[a]	44	35	21	15	24	19(35)	32(69)	1(37)	24	28
	Max 1-Hour Conc. (ppm)	0.139	0.154	0.13	0.149	0.14	0.130	0.139	0.128	0.107	0.133
	Max 8-Hour Conc. (ppm)	0.114	0.137	0.12	0.119	0.109	0.108	0.118	0.105	0.091	0.106
No. Days Exceeded	**Carbon Monoxide:**										
	California Standard:										
	1-Hour - 20 ppm	0	0	0	0	0	0	0	0	0	0
	8-Hour - 9.0 ppm	0	0	0	0	0	0	0	0	0	0
	Federal Primary Standards:										
	1-Hour - 35 ppm	0	0	0	0	0	0	0	0	0	0
	8-Hour - 9.0 ppm	0	0	0	0	0	0	0	0	0	0
	Max 1-Hour Conc. (ppm)	3	4	2	2	1	2	1	1	1	--
	Max 8-Hour Conc. (ppm)	2.0	1.3	0.9	1.0	1.0	2.3	1.0	0.7	0.6	0.7
No. Days Exceeded	**Nitrogen Dioxide:**										
	California Standard:										
	1-Hour - 0.18 ppm (0.100 ppm)	0	0	0	0	0	0	0	0	0	0
	Federal Standard:										
	Annual Arithmetic Mean (AAM) (ppm) [b]	0.017	0.018	0.015	0.014	0.015	0.017	0.013	0.013	0.010	0.010
	Max. 1-Hour Conc. (ppm)	0.07	0.08	0.06	0.07	0.07	0.06	0.06	0.06	0.05	0.05
No. Days Exceeded	**Sulfur Dioxide:** [c]										
	California Standards:										
	1-Hour – 0.25 ppm	0	0	0	0	0	0	0	0	0	0
	24-Hour – 0.04 ppm	0	0	0	0	0	0	0	0	0	0
	Federal Primary Standards:										
	24-Hour – 0.14 ppm [d]	0	0	0	0	0	0	0	0	0	0
	Annual Standard – 0.03 ppm [d]	No	No	No	No	No	No	No	No	No	--
	Max. 1-Hour Conc. (ppm)	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.05
	Max. 24-Hour Conc. (ppm)	0.002	0.012	0.015	0.011	0.004	0.002	0.003	0.003	0.005	--
No. Days Exceeded	**Suspended Particulates (PM10):** [e]										
	California Standards:										
	24-Hour - 50 $\mu g/m^3$	24	19	15	19	19	32	12	9	1	3
	Federal Primary Standards:										
	24-Hour – 150 $\mu g/m^3$	0	0	0	0	0	0	0	0	0	0
	Annual Arithmetic Mean ($\mu g/m^3$) [f]	45.2	43.9	41.4	39.2	45.0	54.8	38.3	34.8	28.0	29.2
	Max. 24-Hour Conc. ($\mu g/m^3$)	100	142	83	80	125	120	85	80	51	65
No. Days Exceeded	**Suspended Particulates (PM2.5):** [c]										
	California and Federal Primary Standards:										
	24-Hour – 65 $\mu g/m^3$ (35$\mu g/m^3$) [g]	8	8	5	4	1(32)	3(33)	0(14)	13	4	4
	Annual Arithmetic Mean ($\mu g/m^3$) [h]	27.5	24.9	22.1	21.0	19.0	19.1	16.4	15.3	13.2	13.6
	Max. 24-Hour Conc. ($\mu g/m^3$)	77.6	104.3	91.7	98.7	68.5	75.7	57.7	54.5	46.5	60.8

Note -- No data available. Yes or No indicating whether or not the standard has been exceeded for that year.

a. 2004 is first year of SCAQMD records for state 8-hour Ozone standard. Federal ozone standard is 0.075 ppm, effective May 27, 2008.

b. Federal NO_2 standard is AAM > 0.053; State NO_2 standard of AAM > 0.030 effective March 20, 2008.

c. Metro Riverside County 1 air monitoring station (SRA 23) data summaries used because this pollutant not monitored for SRA 25.

d. Federal SO_2 standard revoked 24-hour and AAM standards and established new 1-hour standard of 0.075 ppm, effective August 2, 2010.

e. Perris Valley air monitoring station (SRA 24) data summaries used because this pollutant not monitored for SRA 25.

f. Federal PM-10 standard is AAM> 50$\mu g/m^3$ was revoked December 17, 2006. State standard is AAM> 20$\mu g/m^3$, effective July 5, 2003.

g. Federal 24-hour PM-2.5 standard changed to 35$\mu g/m^3$ in 2006. Data for 2009 did not reflect old 24-hour standard.

h. Federal PM-2.5 standard is annual average (AAM) > 15$\mu g/m^3$. State standard is AAM > 12$\mu g/m^3$.

Regulatory Setting

The federal and California ambient air quality standards (AAQS) establish the context for the local air quality management plans and for determination of the significance of a project's contribution to local or regional pollutant concentrations. The California and federal AAQS are presented in **Table 1**. The AAQS represent the level of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness, and persons engaged in strenuous work or exercise, all referred to as “sensitive receptors.” SCAQMD defines a "sensitive receptor" as a land use or facility such as residences, schools, child care centers, athletic facilities, playgrounds, retirement homes, and convalescent homes.

Both federal and state Clean Air Acts require that each non-attainment area prepare a plan to reduce air pollution to healthful levels. The 1988 California Clean Air Act and the 1990 amendments to the federal Clean Air Act (CAA) established new planning requirements and deadlines for attainment of the air quality standards within specified time frames which are contained in the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised, and approved over the past decade. The currently adopted clean air plan for the basin is the 1999 SIP Amendment, approved by the U.S. Environmental Protection Agency (EPA) in 2000.

The Air Quality Management Plan (AQMP) for the Basin establishes a program of rules and regulations directed at attainment of the state and national air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. The SCAQMD adopted an updated AQMP in December 2012, which outlines the air pollution measures needed to meet federal health-based standards for particulates (PM-2.5) in 2014 and also includes specific measures to further implement the ozone strategy in the 2007 AQMP to assist in attaining the ozone standard in 2023 (SCAQMD 2012). The 2012 AQMP was submitted to CARB and EPA for review and to be included as a revision to California’s SIP.

The CARB maintains records as to the attainment status of air basins throughout the state, under both state and federal criteria. The portion of the Basin within which the proposed Project is located is designated as a non-attainment area for NO_2 under state standards, and for ozone, PM-10, and PM-2.5 under both state and federal standards.

Section 3 – Emissions Estimates

Regional Significance Threshold Analysis

The thresholds contained in the SCAQMD CEQA Air Quality Handbook are considered regional thresholds and are shown in **Table 2 – SCAQMD CEQA Regional Significance Thresholds**. These regional thresholds were developed based on the SCAQMD's treatment of a major stationary source.

Table 2 – SCAQMD CEQA Regional Significance Thresholds

Emission Threshold	Units	VOC	NO_X	CO	SO_X	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operations	lbs/day	55	55	550	150	150	55

Short-Term Analysis

Short-term emissions consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Short-term impacts will also include emissions generated during construction as a result of operation of personal vehicles by construction workers, asphalt degassing, and architectural coating (painting) operations.

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 miles per hour and establishing a permanent, and stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project (approximately 25 acres) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

Short-term emissions were evaluated using the CalEEMod version 2011.1.1 computer program. The model evaluated emissions resulting from construction of the Project. The Project will be developed in two phases. Construction of Phase 1 is expected to last for approximately 17 months starting no sooner than October 2013 and construction of Phase 2 is expected to last for approximately 20 months starting no sooner than March 2015. The default parameters within CalEEMod were used and these default values reflect a worst-case scenario, which means that Project emissions are expected to be equal to or less than the estimated construction emissions. In addition to the default values used, several assumptions relevant to model inputs for short-term construction are:

- The Project site is currently vacant; thus, no demolition is necessary.
- Phase 1 construction will begin with site grading for the commercial and office uses no sooner than October 2013. Grading will last approximately four months. Building construction follow and last approximately 12 months. Paving will follow building construction and last one month. Architectural coating/painting will last approximately six months and begin during building construction.

- Phase 2 construction will begin with site grading for the business park uses no sooner than March 2015. Grading will last approximately six months. Building construction follow and last approximately 12 months. Paving will follow building construction and last one month. Architectural coating/painting will last approximately seven months and begin during building construction.

The construction equipment estimated to be used for each analyzed activity and detailed construction timing is shown in Appendix A. **Table 3 – Phase 1 Estimated Daily Construction Emissions** and **Table 4 – Phase 2 Estimated Daily Construction Emissions** summarize the maximum estimated construction emissions from each phase.

Table 3 –Phase 1 Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
2013						
Grading						
Fugitive Dust	0.00	0.00	0.00	0.00	7.06	3.31
Off-Road Emissions	11.85	97.47	52.85	0.10	4.59	4.59
Worker/Vendor Trips	0.13	0.46	1.49	0.00	0.30	0.03
Total	11.98	97.93	54.34	0.10	11.95	7.93
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
2014						
Grading						
Fugitive Dust	0.00	0.00	0.00	0.00	7.06	3.31
Off-Road Emissions	11.22	90.65	50.83	0.10	4.18	4.18
Worker/Vendor Trips	0.11	0.41	1.37	0.00	0.30	0.03
Total	11.33	91.06	52.20	0.10	11.54	7.52
Building Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	4.74	32.06	23.20	0.04	2.02	2.02
Worker/Vendor Trips	1.34	10.37	12.00	0.03	2.58	0.47
Total	6.08	42.43	35.20	0.07	4.60	2.49
Architectural Coating						
Architectural Coating	67.09	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	0.45	2.77	1.92	0.00	0.24	0.24
Worker/Vendor Trips	0.11	0.14	1.53	0.00	0.34	0.02
Total	67.65	2.91	3.45	0.00	0.58	0.26
2014 Maximum[1]	**73.73**	**91.06**	**52.20**	**0.10**	**11.54**	**7.52**

Table 3 –Phase 1 Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
2015						
Building Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	4.34	29.16	22.98	0.04	1.80	1.80
Worker/Vendor Trips	1.22	9.43	11.29	0.03	2.55	0.44
Total	5.56	38.59	34.27	0.07	4.35	2.24
Paving						
Paving	2.07	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	4.89	30.10	20.54	0.03	2.54	2.54
Worker/Vendor Trips	0.08	0.35	0.97	0.00	0.23	0.02
Total	7.04	30.45	21.51	0.03	2.77	2.56
Architectural Coating						
Architectural Coating	67.09	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	0.41	2.57	1.90	0.00	0.22	0.22
Worker/Vendor Trips	0.10	0.13	1.39	0.00	0.34	0.02
Total	67.60	2.70	3.29	0.00	0.56	0.24
2015 Maximum[2]	**74.64**	**41.29**	**37.56**	**0.07**	**4.91**	**2.80**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: See Appendix A for model output report. Numbers may not match due to rounding within the model.
[1] Maximum emissions are the greater of grading alone or building construction and architectural coatings since those activities overlap.
[2] Maximum emissions are the greater of building construction and architectural coatings or architectural coatings and paving since those activities overlap.

Table 4 –Phase 2 Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
2015						
Grading						
Fugitive Dust	0.00	0.00	0.00	0.00	8.69	3.31
Off-Road Emissions	10.57	83.24	49.03	0.10	3.80	3.80
Worker/Vendor Trips	0.10	0.37	1.25	0.00	0.30	0.03
Total	10.67	83.61	50.28	0.10	12.77	7.14
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Building Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	4.34	29.16	22.98	0.04	1.80	1.80
Worker/Vendor Trips	1.22	9.43	11.29	0.03	2.55	0.44
Total	5.56	38.59	34.27	0.07	4.35	2.24
2015 Maximum[1]	**10.67**	**83.61**	**50.28**	**0.10**	**12.77**	**7.14**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
2016						
Building Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	3.99	26.52	22.80	0.04	1.58	1.58
Worker/Vendor Trips	1.14	8.57	10.56	0.03	2.52	0.41
Total	5.13	35.09	33.36	0.07	4.10	1.99
Paving						
Paving	2.07	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	4.58	28.21	20.38	0.03	2.35	2.35
Worker/Vendor Trips	0.08	0.32	0.91	0.00	0.23	0.02
Total	6.73	28.53	21.29	0.03	2.58	2.37
Architectural Coating						
Architectural Coating	63.78	0.00	0.00	0.00	0.00	0.00
Off-Road Emissions	0.37	2.37	1.88	0.00	0.20	0.20
Worker/Vendor Trips	0.10	0.12	1.31	0.00	0.34	0.02
Total	64.25	2.49	3.19	0.00	0.54	0.22

Table 4 –Phase 2 Estimated Daily Construction Emissions

Activity/Year	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	75	100	550	150	150	55
2016 Maximum[2]	70.98	37.58	36.55	0.07	4.64	2.59
Exceeds Threshold?	No	No	No	No	No	No

Notes: See Appendix A for model output report. Numbers may not match due to rounding within the model.
[1] Maximum emissions are the greater of grading alone or building construction alone since those activities don't overlap.
[2] Maximum emissions are the greater of building construction and architectural coatings or architectural coatings and paving since those activities overlap.

Evaluation of the tables above indicates that the maximum criteria pollutant emissions from construction during each year from Phase 1 and Phase 2 will not exceed the SCAQMD regional daily thresholds.

Long-Term Analysis

Long-term air quality impacts will occur once the Project is in operation. The Project is assumed to be operational in 2016. Mobile source emissions refer to on-road motor vehicle emissions generated from the Project's traffic. These emissions are estimated by using the trip generation provided in the Project-specific Traffic Study (WEBB 2013). The CalEEMod default trip lengths were modified to reflect conditions in the Project area.[2] To estimate the average trip lengths for each of the Project's land uses, the area surrounding the Project site was split into zones that represent similar travel patterns and would be served by the Project site. Nearby existing developments with the same land uses were also identified in order to estimate existing trips on the roadway network that will be diverted to the Project. A median trip length from each zone to the Project site and from each zone to the nearby existing developments was then estimated. The trip distribution percentages from the Traffic Study were then applied to each respective zone to estimate the vehicle miles traveled (VMT) for each zone. A VMT discount was applied to the total to account for the existing trips to existing developments that will be diverted to the Project. The VMT for each zone were summed and divided by the average daily number of Project trips to calculate the Project-specific average trip length for each land use. This data is provided in Appendix B.

Area source emissions include stationary combustion emissions of natural gas used for space and water heating (shown in a separate row as natural gas), yard and landscape maintenance (assumed to occur throughout the year in Southern California), consumer use of solvents and personal care products, and an average building square footage to be repainted each year. CalEEMod computes area source emissions based upon default factors and land use assumptions.

Separate emissions were computed for both summer and winter as seen in **Table 5 – Estimated Daily Project Operation Emissions (Summer)** and **Table 6 - Estimated Daily Project Operation Emissions (Winter)**.

[2] Project-specific trip length data calculated by Albert A. Webb Associates traffic engineers.

Table 5 – Estimated Daily Project Operation Emissions (Summer)

Source	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Mobile	24.97	52.65	206.75	0.32	34.29	3.04
Natural Gas	0.06	0.55	0.46	0.00	0.04	0.04
Area	10.23	0.00	0.00	0.00	0.00	0.00
Total	**35.26**	**53.20**	**207.21**	**0.32**	**34.33**	**3.08**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Table 6 – Estimated Daily Project Operation Emissions (Winter)

Source	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Mobile	23.18	53.94	207.53	0.29	34.33	3.09
Natural Gas	0.06	0.55	0.46	0.00	0.04	0.04
Area	10.23	0.00	0.00	0.00	0.00	0.00
Total	**33.47**	**54.49**	**207.99**	**0.29**	**34.37**	**3.13**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Evaluation of the data presented in the above tables indicates that criteria pollutant emissions from operation of this Project will not exceed the SCAQMD regional daily thresholds for any pollutant during summer and winter.

Conclusion

Based on the regional significance threshold analysis for the proposed Project, the short-term construction emissions will not exceed the daily regional thresholds set by SCAQMD and the long-term operational emissions will also not exceed the daily regional thresholds set by SCAQMD during summer and winter.

Localized Significance Threshold Analysis

Background

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality. Staff at SCAQMD has developed localized significance threshold (LST) methodology (SCAQMD 2008) that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short-term and long-term). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of

the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The Project is located on the edge of SRA 25/26.

Methodology

The emissions analyzed under the LST methodology are NO_2, CO, PM-10, and PM-2.5. For attainment pollutants, NO_2 and CO, the LSTs are derived using an air quality dispersion model to back-calculate the emissions per day that would cause or contribute to a violation of any ambient air quality standard for a particular source receptor area. LSTs for NO_2 and CO are derived by adding the incremental emission impacts from the project activity to the peak background NO_2 and CO concentrations and comparing the total concentration to the state ambient air quality standards. The state standard for NO_2 is the 1-hour state standard of 18 parts per hundred million and for CO it is the 1-hour and 8-hour state standards of 9 parts per million (ppm) and 20 ppm, respectively. For PM-10 and PM-2.5, for which the Basin is non-attainment, the LSTs are derived using an air quality dispersion model to back-calculate the emissions necessary to make an existing violation in the specific source receptor area worse, using the allowable change in concentration thresholds approved by the SCAQMD. For PM-10 and PM-2.5, the approved 24-hour concentration thresholds for construction and operation are 10.4 $\mu g/m^3$ and 2.5 $\mu g/m^3$, respectively.

Short-Term Analysis

According to the LST methodology, only on-site emissions need to be analyzed. Emissions associated with hauling, vendor trips, and worker trips are mobile source emissions that occur off-site and need not be considered. SCAQMD has provided LST lookup tables and sample construction scenarios[3] to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects five acres or smaller. Although the Project site is larger than five acres, it is anticipated that an area no larger than five acres would be disturbed per day during construction.[4] Therefore, the sample construction scenario for the five-acre site was modified using Project-specific information such as the construction equipment usage information from the CalEEMod data found in Appendix A.

The LST thresholds are estimated using the maximum daily disturbed area (in acres) and the distance of the project to the nearest sensitive receptors (in meters). Sensitive receptors in the Project vicinity include existing residences northeast and southwest of the Project site (**Figure 1**). The closest receptor distance on the LST look-up tables is 25 meters. According to SCAQMD Methodology, projects with boundaries closer than 25 meters to the nearest receptor should use LST's for receptors located at 25 meters. Therefore, a receptor distance of 25 meters was chosen. The results are summarized in **Table 7 – LST Results for Construction Estimates**.

[3] http://www.aqmd.gov/ceqa/handbook/LST/LST.html

[4] http://www.aqmd.gov/ceqa/handbook/LST/CalEEModguidance.pdf

Table 7 – LST Results for Construction Emissions

Activity	Peak Daily Emissions (lb/day)			
	NO_X	CO	PM-10	PM-2.5
25 meter LST for 5-acres	**371**	**1,965**	**13**	**8**
Grading	95.0	46.6	8.7	5.0
Building Construction	35.1	19.6	2.0	1.8
Paving	41.8	24.5	2.9	2.7
Exceeds Threshold?	**No**	**No**	**No**	**No**

According to **Table 7**, short-term construction emissions from the Project will not exceed the SCAQMD-established LST for any criteria pollutant.

Long-Term Analysis

According the LST methodology, LST's would only apply to the operational phase if the project includes stationary sources or attracts mobile sources that may spend long periods of time idling at the site; such as warehouse/transfer facilities. The proposed Project is a mixed-use commercial/office and business park and does not include such uses. Therefore, no long-term LST analysis is needed.

Conclusion

Based on the LST analysis, the short-term construction of the Project will not result in localized air quality impacts to sensitive receptors within the Project vicinity. Due to lack of stationary source emissions, no long-term analysis is needed.

CO Hot Spots Analysis

A carbon monoxide (CO) "hot spot" is a localized concentration of CO that is above the state or federal 1-hour or 8-hour ambient air quality standards (AAQS). Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles.

Based on the information presented below, a CO "hot spot" analysis is not needed to determine whether the addition of Project related traffic will contribute to an exceedance of either the state or federal AAQS for CO emissions in the Project area.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP)[5] and the Revised 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). [6] As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections (2003 AQMP Appendix V, pg V-4-32). Considering the region's unique meteorological conditions and the

[5] SCAQMD, *2003 Air Quality Management Plan*, August 1, 2003. (Available at http://www.aqmd.gov/aqmp/AQMPintro.htm, accessed May 19, 2012.)

[6] SCAQMD, *Revision to the 1992 Carbon Monoxide Attainment Plan*, September 1994. (Available at SCAQMD.)

increasingly stringent CO emissions standards, CO modeling was performed as part of the 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Blvd. and Imperial Highway (Lynwood); Wilshire Blvd. and Veteran Ave. (Westwood); Sunset blvd. and HIghland Ave. (Hollywood); and La Cienega Blvd. and Century Blvd. (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated in the 1992 CO Plan and subsequent 2003 AQMP was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day (2003 AQMP Appendix V, Table 4-7). The Los Angeles County Metropolitan Transportation Authority (MTA)[7] evaluated the LOS in the vicinity of the Wilshire Blvd./Veteran Ave. intersection and found it to be level E at peak morning traffic and Level F at peak afternoon traffic (MTA, Exhibit 2-5 and 2-6).Considering Project-related traffic as well as existing conditions, ambient growth, and cumulative project traffic, the highest average daily trips would be 31,434 on Clinton Keith Road between the Interstate 15 northbound ramps and George Avenue,[8] which is lower than the values studied by SCAQMD. Therefore, none of the intersections in the vicinity of the proposed Project site would have peak hourly traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail.

Recommended Mitigation Measures

No mitigation measures are recommended because the Project's emissions are below all SCAQMD thresholds.

Conclusion

The Project's emissions from short-term construction of the Project will not exceed SCAQMD regional thresholds for any criteria pollutant. Localized significance thresholds will also not be exceeded at sensitive receptor locations within the Project vicinity during construction.

The long-term operation will not exceed the SCAQMD regional daily thresholds during summer or winter. In addition, the Project will not result in CO hot spots.

[7] Metropolitan Transportation Authority, *2004 Congestion Management Plan for Los Angeles County*, Adopted July 22, 2004. (Available at http://www.metro.net/images/cmp_2004.pdf, accessed May 19, 2012.)

[8] Data provided by Albert A. Webb Associates traffic engineer.

Section 4 – Greenhouse Gas Analysis

Background

Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. This layer of gases in the atmosphere functions much the same as glass in a greenhouse (i.e., both prevent the escape of heat). This is why global warming is also known as the "greenhouse effect." Increased emissions of these gases due to combustion of fossil fuels and other activities increase the greenhouse effect, leading to global warming and other climate changes. Gases responsible for global climate change in the Basin and their relative contribution to the overall warming effect are carbon dioxide (55 percent), chlorofluorocarbons (24 percent), methane (15 percent), and nitrous oxide (6 percent) (SCAQMD 2005, p. 1-8). It is widely accepted that continued increases in greenhouse gases (GHG) will contribute to global climate change although there is uncertainty concerning the magnitude and timing of future emissions and the resultant warming trend (SCAQMD 2005, p.1-8). Human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors contribute to these GHG (CEC 2006, p.7). According to a recent report published by the California Energy Commission (CEC), transportation was responsible for 41 percent of the state's GHG emissions, followed by electricity generation for the most recent reporting year, 2004 (CEC 2006, p. 8). In November 2007, the California Air Resources Board (CARB) reported that transportation was 38 percent of the state's GHG emissions, followed by electricity generation for 2004 (CARB 2007, p.7). Emissions of carbon dioxide (CO_2) and nitrous oxide (N_2O) are byproducts of fossil fuel combustion (CARB 2007, p. 15). Methane (CH_4), a highly potent GHG, results from off-gassing associated with agricultural practices, landfills, and wastewater treatment (CARB 2007, p. 19–22; IPCC 2007, p. 593).

"Stratospheric ozone depletion" refers to the slow destruction of naturally occurring ozone, which lies in the upper atmosphere (called the stratosphere) and which protects Earth from the damaging effects of solar ultraviolet radiation. Certain compounds, including chlorofluorocarbons (CFCs,) halons, carbon tetrachloride, methyl chloroform, and other halogenated compounds, accumulate in the lower atmosphere and then gradually migrate into the stratosphere. In the stratosphere, these compounds participate in complex chemical reactions to destroy the upper ozone layer. Destruction of the ozone layer increases the penetration of ultraviolet radiation to the Earth's surface, a known risk factor that can increase the incidence of skin cancers and cataracts, contribute to crop and fish damage, and further degrade air quality (SCAQMD 2005, p. 1-8).

GHG and ozone-depleting gases include, but are not limited to, the following:

- **Carbon dioxide –** Carbon dioxide (CO_2) results from fossil fuel combustion in stationary and mobile sources. It contributes to the greenhouse effect, but not to stratospheric ozone depletion. In 2004, CO_2 accounted for approximately 84 percent of total GHG emissions in the state (CEC 2006, p. 5). In the Basin, approximately 48 percent of CO_2 emissions come from transportation, residential and utility sources which contribute approximately 13 percent each; 20 percent come from industry; and the remainder comes from a variety of other sources (SCAQMD 2005, p. 1-8).
- **Methane –** Atmospheric methane (CH_4) is emitted from both non-biogenic and biogenic sources. Non-biogenic sources include fossil fuel mining and burning, biomass burning, waste treatment, geologic sources, and leaks in natural gas pipelines. Biogenic sources include wetlands, rice agriculture, livestock, landfills, forest, oceans, and termites. Methane sources can also be divided into anthropogenic and natural. Anthropogenic sources include rice agriculture, livestock, landfills, and waste treatment, some biomass burning, and fossil fuel combustion. Natural sources are

wetlands, oceans, forests, fire, termites, and geological sources. Anthropogenic sources currently account for more than 60 percent of the total global emissions. (IPCC 2007, p. 593.) It is a greenhouse gas and traps heat 40–70 times more effectively than carbon dioxide. In the Basin, more than 50 percent of human-induced methane emissions come from natural gas pipelines, while landfills contribute 24 percent. Methane emissions from landfills are reduced by SCAQMD Rule 1150.1 – Control of Gaseous Emissions from Active Landfills. Methane emissions from petroleum sources are reduced by a number of rules in SCAQMD Regulation XI that control fugitive emissions from petroleum production, refining, and distribution. (SCAQMD 2005, p. 1-9.)

- **Other regulated greenhouse gases include Nitrous Oxide, Sulfur Hexafluoride, Hydrofluorocarbons, and Perfluorocarbons -** These gases all possess heat-trapping potentials hundreds to thousands of times more effective than carbon dioxide. Emission sources of nitrous oxide gases include, but are not limited to, waste combustion, waste-water treatment, fossil fuel combustion, and fertilizer production. Because the volume of emissions is small, the net effect of nitrous oxide emissions relative to carbon dioxide or methane is relatively small. Sulfur hexafluoride, hydrofluorocarbon, and perfluorocarbon emissions occur at even lower rates.
- **Chlorofluorocarbons** – Chlorofluorocarbons (CFCs) are emitted from blowing agents used in producing foam insulation. They are also used in air conditioners and refrigerators and as solvents to clean electronic microcircuits. CFCs are primary contributors to stratospheric ozone depletion and to global climate change. Sixty-three percent of CFC emissions in the Basin come from the industrial sector. Federal regulations require service practices that maximize recycling of ozone-depleting compounds (both CFCs, hydro-chlorofluorocarbons and their blends) during the servicing and disposal of air-conditioning and refrigeration equipment. SCAQMD Rule 1415 – Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems requires CFC refrigerants to be reclaimed or recycled from stationary refrigeration and air conditioning systems. SCAQMD Rule 1405 – Control of Ethylene Oxide and Chlorofluorocarbon Emissions from Sterilization or Fumigant Processes requires recovery of reclamation of CFCs at certain commercial facilities and eliminates the use of some CFCs in the sterilization processes. Some CFCs are classified as toxic air contaminants (TACs) and regulated by SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants and SCAQMD Rule 1402 Control of Toxic Air Contaminants from Existing Sources (SCAQMD 2005, p. 1-8 through 1-9).
- **Halons –** These compounds are used in fire extinguishers and behave as both ozone-depleting and greenhouse gases. Halon production ended in the United States in 1993. SCAQMD Rule 1418 – Halon Emissions from Fire Extinguishing Equipment requires the recovery and recycling of halons used in fire extinguishing systems and prohibits the sale of halon in small fire extinguishers (SCAQMD 2005, p. 1-9).
- **Hydro-chlorofluorocarbons –** HCFCs are solvents, similar in use and chemical composition to CFCs. The hydrogen component makes HCFCs more chemically reactive than CFCs, allowing them to break down more quickly in the atmosphere. These compounds deplete the stratospheric ozone layer, but to a much lesser extent than CFCs. HCFCs are regulated under the same SCAQMD rules as CFCs (SCAQMD 2005, p. 1-9).
- **1,1,1,-trichloroethane (TCA**) – TCA (methyl chloroform) is a solvent and cleaning agent commonly used by manufacturers. It is less destructive on the environment than CFCs or HCFCs, but its continued use will contribute to global climate change and ozone depletion. TCA is a synthetic chemical that does not occur naturally in the environment. No TCA is supposed to be manufactured for domestic use in the United States after January 1, 2002 because it affects the ozone layer. TCA

had many industrial and household uses, including use as a solvent to dissolve other substances, such as glues and paints; to remove oil or grease from manufactured metal parts; and as an ingredient of household products such as spot cleaners, glues, and aerosol sprays. SCAQMD regulates this compound as a toxic air contaminant under Rules 1401 and 1402 (SCAQMD 2005, p. 1-9).

Individual GHGs have varying global warming potential and atmospheric lifetimes. The Intergovernmental Panel on Climate Change (IPCC) developed the Global Warming Potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of individual GHGs is determined through a comparison with the GWP of CO_2. CO_2 has a GWP of one. CH_4 has a GWP of 21, meaning that on a molecule by molecule basis, CH_4 has 21 times the global warming potential of CO_2. CO_2-equivalents (CO_2E) are the emissions of a GHG multiplied by the GWP. The CalEEMod program calculates the CO_2E based on the GWPs reported in the IPCC Second Assessment Report (IPCC 1995, p. 22). **Table 8 – Global Warming Potentials and Atmospheric Lifetimes** shows the GWP and atmospheric lifetimes of various GHGs with relatively long atmospheric lifetimes from the IPCC 1995 report.

Table 8 – Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12±3	21
Nitrous Oxide (N_2O)	120	310
Hydrofluorocarbons (HFCs)		
HFC-23	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
Perfluoromethane (CF_4)	50,000	6,500
Perfluoroethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: IPCC 1995, Table 4

Unlike criteria air pollutants and TACs, which are pollutants of regional and local concern, global climate change is a global problem and GHGs are global pollutants. Impacts of GHG emissions are a function of their total atmospheric concentration and most GHGs are globally well mixed atmospheric constituents. This means that the location of a particular GHG emission, in contrast to the situation for criteria pollutants, does not change its environmental impact.

Globally, for the years 2000 through 2005, the annual average emissions of fossil fuel-related CO_2 was 26.4 gigatons (one gigaton equals one billion metric tonnes (MT)) per year (IPCC 2007, Summary for Policy Makers, p.2). It should also be noted that the annual total U.S. emissions of GHG dropped 1.5 percent in 2006 from 7,181 million MT to 7,075 million MT due to warmer weather and decreased energy demand, according to the Energy Information Administration (EIA) (EIA, p. 1). During the same timeframe, the U.S. economic output increased 2.9 percent (EIA, p. 2). This decline results in a GHG intensity reduction of 4.2 percent as a measure of gross domestic product (EIA, p. 2).

Worldwide, California is the 12th to 16th largest emitter of CO_2, and is responsible for approximately two percent of the world's CO_2 emissions (CEC 2006, p. i). In 2004, the most recent year for which statewide data is available, the CEC reported that California produced 492 million gross MT (one MT equals 2,205 pounds) of carbon dioxide-equivalent (CEC 2006, p. 5).

In January 2007, Assembly Bill 1803 transferred responsibility for developing and maintaining the state's GHG inventory from the California Energy Commission (CEC) to CARB. Using the CEC GHG inventory as a starting point, CARB staff determined the state's 1990 GHG emissions level by conducting a comprehensive review of all GHG emitting sectors. The seven sectors are: Transportation, Electricity Generation, Industrial, Residential, Agriculture, Commercial, and Forestry.

In November 2007, the CARB released its staff report establishing a statewide 1990 GHG emission level and a 2020 emission limit (CARB 2007). As part of this staff report, CARB staff recommended an amount of 427 million metric tonnes of carbon dioxide equivalent ($MMTCO_2E$) as the total statewide GHG 1990 emissions level and 2020 emissions limit (CARB 2007, p. 2). The Board approved the 2020 limit on December 6, 2007. This limit is an aggregated statewide limit, rather than sector- or facility-specific. The staff report also included the statewide GHG emissions for 2004, which was 480 $MMTCO_2E$ (CARB 2007, p. 7).

While the inventory data numbers from the CEC and CARB are similar for 2004, these estimates have important differences. Emissions from individual sectors differ between CEC and CARB estimates by up to 30 percent due to updated data, methodologies, and differences in included and excluded emissions. Staff at CARB treated carbon stored in landfills differently than CEC by separately tracking stored carbon instead of considering it an emission sink within a landfill. In addition, the CARB estimate only includes intrastate aviation, whereas the CEC estimates include both interstate and intrastate flights. Staff also included emissions from international shipping and related port activities in California waters, whereas the CEC excluded all emissions from international ships (CARB 2007, p. 9).

Regulatory Setting

Federal

Previously the U.S. EPA (USEPA) had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007)), however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the USEPA to decide whether the gases endangered public health or welfare. On December 7, 2009, the USEPA issued an Endangerment Finding under Section 202(a) of the CAA, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the USEPA has not promulgated major regulations on GHG emissions, but it has begun to develop them.

The USEPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before Congress adopts major climate change legislation. The USEPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress. To date, Congress, under

the Consolidated Appropriations Act of 2008 (HR 2764), has established mandatory GHG reporting requirements for some emitters of GHGs. On September 22, 2009, the USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires annual reporting to the USEPA of GHG emissions from large sources and suppliers of GHGs, including facilities that emit 25,000 MT or more a year of GHGs.

State

For decades, California's Building Codes have mandated energy efficiency. Since the production of energy uses large quantities of fossil fuels, efficient use of energy reduces GHGs. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The amendments made in October 2005 require new homes to use half the energy they used only a decade ago. In September 2008, the new 2008 standards were adopted to update the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1. The amended 2008 standards went into effect in January 2010. Energy efficient buildings require less electricity, and electricity production by fossil fuels results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions.

The California Building Standards Commission adopted the nation's first green building standards on July 17, 2008. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that become mandatory in the 2010 edition of the Code (January 2011), on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

In addition to building code requirements, California is leading the U.S. in regulating the emissions of GHGs directly. In July 2002, Governor Gray Davis signed California Assembly Bill (AB) 1493 (Pavley), which requires CARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB will apply to 2009 and later model year vehicles. CARB estimates that the regulation, if implemented, will reduce GHG emissions from the light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030. The USEPA initially denied the CAA waiver required to implement AB 1493 on December 19, 2007. However, in January 2009, President Barack Obama issued a directive to the USEPA to reconsider California's request for the waiver. The USEPA granted California's request for a CAA waiver on June 30, 2009.

In June 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. This Order calls for the following GHG emission reduction targets to be established: reduce GHG emissions to 2000 levels by 2010; reduce GHG emissions to 1990 levels by 2020; and reduce GHG emissions to 80 percent below 1990 levels by 2050. S-3-05 also requires that the Secretary of the California Environmental Protection Agency (CalEPA) shall coordinate oversight of the efforts made to meet the targets with: the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission, and the President of the Public Utilities Commission. The Secretary of CalEPA leads a "Climate Action Team" made up of representatives from the agencies listed above to implement

GHG emission reduction programs and report on the progress made toward meeting the statewide GHG targets that were established in the executive order. Per the Executive Order, the first Climate Action Team report to the Governor and the Legislature was released in March 2006.

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 directs the CARB to implement regulations for a cap on sources or categories of sources of GHG emissions. The bill requires that CARB develop regulations to reduce emissions with an enforcement mechanism to ensure that the reductions are achieved, and to disclose how it arrives at the cap. It also includes conditions to ensure businesses and consumers are not unfairly affected by reductions.

AB 32 requirements and milestones are as follows:

- June 30, 2007 – Identification of discrete early action greenhouse gas emissions reduction measures. Three early action measures were approved by CARB on June 21, 2007. Six other discrete early action measures were subsequently approved.
- January 1, 2008 – Establish a 1990 baseline GHG emissions level and approval of a statewide limit equivalent to that level. Adoption of mandatory reporting and verification requirements concerning GHG emissions. On December 6, 2007, CARB approved a statewide limit on GHG emissions levels for the year 2020 consistent with the determined 1990 baseline.
- January 1, 2009 – Adoption of a scoping plan for achieving GHG emission reductions. On December 11, 2008, the CARB Board adopted the *Climate Change Scoping Plan* (Scoping Plan), at its meeting.
- January 1, 2010 – Adoption and enforcement of regulations to implement the “discrete” actions. The CARB identified nine discrete early action measures including regulations affecting landfills, motor vehicle fuels, refrigerants in cars, tire pressure, port operations and other sources in 2007 that included ship electrification at ports and reduction of high global warming potential (GWP) gases in consumer products. Regulatory development for the remaining measures is ongoing.
- January 1, 2011 – Adoption of GHG emissions limits and reduction measures by regulation.
- January 1, 2012 – GHG emissions limits and reduction measures adopted in 2011 become enforceable.

AB 32 codifies S-3-05’s year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.

Under AB 32, CARB published its, *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California* in October 2007. There are 44 early action measures, both regulatory and non-regulatory, and are currently underway or to be initiated by the CARB in the 2007 to 2012 timeframe. The early action measures apply to the fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, waste, fuels, cement, oil and gas, electricity, and fire suppression sectors. As noted in the milestones above, nine of the early action measures are discrete early action measures that are regulatory and enforceable by January 1, 2010. CARB estimates that the 44 recommendations have the potential to result in GHG reductions of at least 42 $MMTCO_2E$ by 2020, representing approximately 25 percent of the 2020 target.

As discussed in the Scoping Plan, the projected total business-as-usual emissions for year 2020 (596 $MMTCO_2E$) must be reduced approximately 30 percent to achieve CARB’s approved 2020 emission target of 427 $MMTCO_2E$. This is an approximately 15 percent reduction in today’s levels. The Scoping

Plan identifies recommended measures for several GHG emission sectors and the associated emission reductions to meet the 2020 emissions target. Each sector has a different emission reduction target. The majority of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements for reducing California's GHG to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation.

A regulation establishing the 33 percent renewable electricity standard was adopted unanimously on September 23, 2010 by CARB. The standard will promote green jobs to construct and run renewable facilities in California, reduce hundreds of tons of harmful air pollution, insulate California's economy from the shock of volatile natural gas prices and help establish the state as a global leader in the research, development and manufacturing of clean, renewable energy sources.

The Renewable Electricity Standard (RES) means cleaner energy for California's households and businesses, and is the product of coordination and cooperation by CARB, California Public Utilities Commission, California Energy Commission and California Independent System Operator. Work on the standard began immediately following the Governor's Renewable Electricity Standard Executive Order, signed on September 15, 2009. The goal of 33 percent renewable electricity was also a major measure in the Scoping Plan, adopted by the Board in December 2008, toward fulfilling AB 32, the requirements of California's climate change legislation. The regulation ramps up the amount of electricity from wind, solar, geothermal and other renewable sources of energy while preserving the existing authorities of the energy agencies and the grid operator. CARB oversight will ensure that the renewable standard delivers substantial reductions in greenhouse gas emissions and achieves clean air goals by reducing smog-forming pollution. RES is one of many measures designed to reach the goals set out by AB 32, California's law requiring the reduction of greenhouse gas emissions to 1990 levels by 2020. In 2020 the new regulation will eliminate the equivalent of 12 million metric tons of carbon dioxide, making it one of AB 32's largest emission-reduction strategies.

Also in September 2006, Governor Arnold Schwarzenegger signed Senate Bill (SB) 1368 which calls for the adoption of a GHG performance standard for in-state and imported electricity generators to mitigate climate change. On January 25, 2007, the California Public Utilities Commission adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers be with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of CO_2 per megawatt-hour.

Executive Order S-01-07 was approved by the Governor on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also required that a Low Carbon Fuel Standard for transportation fuels be established for California which was approved by CARB on April 23, 2009. The regulation is designed to increase the use of alternative fuels, replacing 20 percent of the fuel used by cars in California with clean alternative fuels by 2020, including electricity, biofuels, hydrogen, and other options.

The Western Climate Action Initiative (WCI) was signed on February 26, 2007 by five states: Washington, Oregon, Arizona, New Mexico, and California. Utah, as well as Manitoba and British Columbia, Canada joined in April 2007. Montana joined in January 2008, Quebec moved from Observer to Partner status in April 2008 and Ontario moved from Observer to Partner status in July 2008. Other United States and Mexican states and Canadian provinces have joined as observers. The WCI Partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020 and spur investment in and development of clean-energy technologies, create green jobs, and protect public health.

In August 2007, Governor Arnold Schwarzenegger signed Senate Bill (SB) 97, CEQA: Greenhouse Gas Emissions. The bill required the Office of Planning and Research (OPR), by July 1, 2009, to prepare guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010. On June 19, 2008, OPR released an interim technical advisory for addressing climate change in CEQA documents (OPR 2008). The recommended approach is to identify and quantify project-related GHG emissions; determine its significance; and if the impact is found to be potentially significant, implement mitigation measures or alternatives that will reduce the impact below significance (OPR 2008, p. 5). Further, the guidance states that the lead agency is not responsible for completely eliminating all project-related GHG emissions (OPR 2008, p. 7).

Pursuant to SB 97, OPR released and the Natural Resources Agency adopted CEQA Guideline Amendments addressing GHG emissions on December 30, 2009 (OPR 2009). The amended State *CEQA Guidelines* went into effect in March 2010. As a result, CEQA now requires a discussion of potential climate change impacts for projects that require environmental analysis. Lead agencies are now required to consider the adverse effects of a project's cumulative contribution to GHG emissions on the environment and determine if a project's climate change impact may be significant. The amended State *CEQA Guidelines* provide that significance thresholds may be quantitative, qualitative, or in the form of performance-based standards. Various agencies, including the CARB and SCAQMD, have been developing and drafting standards and guidelines for determining the cumulative significance of a project's GHG emissions on global climate change. However, there is currently no single accepted industry practice or methodology for analyzing GHG impacts under CEQA. The Project's GHG emissions will be evaluated according to the draft thresholds proposed by SCAQMD, discussed in more detail below.

On September 30, 2008, Governor Arnold Schwarzenegger signed Senate Bill (SB) 375 (Steinberg). SB 375 focuses on housing and transportation planning decisions to reduce fossil fuel consumption and conserve farmlands and habitat. This legislation is important to achieving AB 32 goals because greenhouse gas emissions associated with land use, which includes transportation, are the single largest source of emissions in California. SB 375 provides a path for better planning by providing incentives to

locate housing developments closer to where people work and go to school, allowing them to reduce vehicle miles traveled (VMT) every year.

To achieve these goals, SB 375 will:

- require the regional transportation plan for each of the state's major metropolitan areas to adopt a "sustainable community strategy" that will meet the region's target for reducing GHG emissions from cars and light trucks. These strategies would get people out of their cars by promoting smart growth principles such as: development near public transit; projects that include a mix of residential and commercial use; and projects that include affordable housing to help reduce new housing developments in outlying areas with cheaper land and reduce vehicle miles traveled (VMT).
- create incentives for implementing the sustainable community strategies by allocating federal transportation funds only to projects that are consistent with the emissions reductions.
- provide various forms of CEQA relief by allowing projects that are shown to conform to the preferred sustainable community strategy through the local general plans (and therefore contribute to GHG reduction) to have a more streamlined environmental review process. Specifically, if a development is consistent with the sustainable community's strategy and incorporates any mitigation measures required by a prior EIR, then the environmental review does not have to consider: a) growth-inducing impacts, or b) project-specific or cumulative impacts from cars on global climate change or the regional transportation network. In addition, a narrowly-defined group of "transit priority projects" will be exempt from CEQA review.

On September 23, 2010, CARB adopted regional targets for reducing GHG emissions in 2020 and 2035 associated with passenger vehicles in the state's 18 Metropolitan Planning Organizations (MPOs). The Southern California Association of Governments (SCAG) is the local MPO for the region. The SCAG targets are an eight percent reduction in per capita emissions by 2020 and a 13 percent reduction in per capita GHG emissions by 2035 (the 2035 target is conditioned on discussion with the MPO). With the targets adopted, SCAG adopted a Sustainable Community Strategy (SCS) as part of the 2012 Regional Transportation Plan.

Pursuant to OPR's request to recommend significance thresholds, CARB released the *Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significant Thresholds for Greenhouse Gases under CEQA* on October 24, 2008 (CARB 2008). The current recommendations are a sector-specific approach to develop thresholds for projects that result in a substantial portion of the state's GHG emissions. The preliminary interim thresholds are for two sectors: 1) industrial projects, and 2) residential and commercial projects. For industrial projects that do not qualify under existing CEQA statutory or categorical exemptions, CARB recommends that GHG-related impacts may be found to be insignificant if they: (1) meet interim performance standards for construction and transportation-related emissions and (2) emit no more than 7,000 $MTCO_2E$ from non-transportation operational sources. CARB recommends that residential and commercial projects that do not qualify under existing CEQA statutory or categorical exemptions are presumed to have a less than significant impact related to climate change if: (1) construction activities meet an interim CARB performance standard for construction-related emissions; (2) operational activities: i) meet the California Energy Commission's Tier II Energy Efficiency goal; ii) meet an interim CARB performance standard for water use; iii) meet an interim CARB performance standard for waste; and iv) meet an interim CARB performance standard for transportation; and (3) the project will emit no more than a "to be determined" limit for $MTCO_2E$ per year. Although the CARB 2008 Draft Guidance indicated CARB's intent to provide final guidance to OPR before OPR issued its draft *CEQA Guidelines*, CARB did not release final guidance before the CEQA Guideline Amendments were adopted in December 2009. Because no further guidance has been issued

as of February 2013, these recommendations are not utilized in the Project's analysis; they are briefly addressed here for the purpose of full disclosure.

Regional

In addition to current rules and regulations which also address GHG, SCAQMD plans to provide guidance to local lead agencies on determining significance for GHG in their CEQA documents by convening a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds. The SCAQMD began hosting monthly working group meetings in April 2008. The result of the October 2008 working group meeting was a *Draft AQMD Staff CEQA Greenhouse Gas Significance Threshold* (SCAQMD 2008a) and the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008b). The Draft Threshold is intended to be interim guidance until statewide significance thresholds or guidance are established. The proposed significance threshold is a tiered approach which allows for flexibility by establishing multiple thresholds to cover a broad range of projects.

SCAQMD proposes three tiers of compliance that may lead to a determination that impacts are less than significant, including: (1) projects with greenhouse gas emissions within budgets set out in approved regional plans, to be developed under the SB 375 process; (2) projects with GHG emissions that are below designated quantitative thresholds: (i) industrial projects with an incremental GHG emissions increase that falls below (or is mitigated to be less than) 10,000 $MTCO_2E$/yr; or (ii) commercial and residential projects with an incremental GHG emissions increase that falls below (or is mitigated to be less than) 3,000 $MTCO_2E$/yr, provided that such projects also meet energy efficiency and water conservation performance targets that have yet to be developed; (3) projects that purchase GHG offsets which, either alone or in combination with one of the three tiers mentioned above, achieve the target significance screening level.

On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for projects where the SCAQMD is the lead agency. Currently, the Board has only adopted thresholds relevant to industrial (stationary source) projects.

Since December 2008, the SCAQMD continued hosting the working group meetings and revised the draft threshold proposal several times although it did not officially provide these proposals in a subsequent document. The most recent working group meeting on September 28, 2010[9] proposed two options lead agencies can select from for screening thresholds of significance for GHG emissions in residential and commercial projects proposes to expand the industrial threshold to other lead agency industrial projects. Option 1 proposes a threshold of 3,000 $MTCO_2E$/year for all residential and commercial projects; Option 2 proposes a threshold value by land use type where the numeric threshold is 3,500 $MTCO_2E$/year for residential projects; 1,400 $MTCO_2E$/year for commercial projects; and 3,000 $MTCO_2E$/year for mixed use projects. Although both Options are recommended, a lead agency is advised to use only one Option and to use it consistently. Because no commercial thresholds have been adopted by SCAQMD as of February 2013, these recommendations are not utilized in the Project's analysis; they are briefly addressed here for the purpose of full disclosure.

[9] http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html

Methodology

At this time, there are no adopted numeric thresholds that govern the determination of the significance of the Project's GHG emissions. This analysis in this report used the AB 32 reduction target as a significance threshold, which called for the state to achieve 1990 levels of GHG emissions by 2020. This equates to a 28.5 percent reduction in GHG emissions. The report's methodology is to compare the Project's GHG emissions as proposed to the Project's emissions if the Project were constructed before AB 32, which is often referred to as a Business-As-Usual (BAU) analysis.

Many aspects of the GHG estimates for the BAU analysis are similar to those analyzed for the proposed Project. BAU emissions for construction will be similar to those shown for the Project, as the same Project footprint will be disturbed. Therefore, construction under the BAU analysis is assumed to be equivalent to that of the Project and was not modeled separately. BAU emissions for the remaining sources of GHG emissions were estimated using CalEEMod and are similar to the GHG estimates for the Project with the following exceptions:

- The energy-related GHG emissions were estimated according to the historical 2005 Title 24 standards.
- Mobile source emissions factors do not include the Pavley motor vehicle standards for cars and light trucks and the Low Carbon Fuel Standard (LCFS) for motor vehicle fuels;
- No adjustments were made for the water efficient landscape requirements in the City Municipal Code or the CalGreen code requirements that were not in effect at the time AB 32 was passed.

Emissions Estimates

It should be noted that the release of GHG in general and CO_2 specifically into the atmosphere is not of itself an adverse environmental affect. It is the affect that increased concentrations of GHG including CO_2 in the atmosphere has upon the Earth's climate (i.e., climate change) and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although air quality modeling can estimate a project's incremental contribution of CO_2 into the atmosphere, it is not feasible to determine whether or how an individual project's relatively small incremental contribution (on a global scale) might translate into physical effects on the environment. Since the Earth's climate is determined by the complex interaction of different components of the Earth and its atmosphere, it is not possible to discern whether the presence or absence of GHG emitted by the Project would result in any measurable impact that would cause climate change.

The following Project activities were analyzed below for their contribution to global GHG emissions:

Short-Term Analysis

Construction-Related Activities

The CalEEMod model calculates GHG emissions from fuel usage by construction equipment and construction-related activities, like construction worker trips, for the Project. The CalEEMod estimate does not analyze emissions from construction-related electricity or natural gas. Construction-related electricity and natural gas emissions vary based on the amount of electric power used during construction and other unknown factors which make them too speculative to quantify. Life-cycle emissions associated with the manufacture of building materials are also not quantified in this analysis although they undoubtedly exist. Quantification was not attempted because of the large spatio-

temporal variation in sources for building products used to construct the Project and the consequent large uncertainty associated with the resulting emissions. For this reason, to attempt to quantify life-cycle emissions of materials would be speculative. This conclusion is consistent with recent guidance on quantification of emissions for commercial projects presented by the California Air Pollution Control Officer's Association guidance. *CEQA and Climate Change* (CAPCOA, p. 65).

The following table summarizes the CalEEMod output results based on the proposed construction schedule for the Project between 2013 and 2016 and presents the GHG emissions estimates for the Project in metric tonnes per year (MT/yr) for CO_2, CH_4, N_2O, and CO_2E.[10]

Table 9 – Construction-Related GHG Emissions

Year	Metric Tons per year (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2E
2013	332.35	0.03	0.00	333.03
2014	888.53	0.07	0.00	889.99
2015	1,026.99	0.08	0.00	1,026.76
2016	617.91	0.04	0.00	618.80
Total	**2,827.01**	**0.23**	**0.00**	**2,868.58**
			Amortized Total	**95.62**

Notes: See Appendix A for model output report. Numbers may not match due to rounding within the model.

Evaluation of the table above indicates that an estimated 2,868.58 $MTCO_2E$ will occur from Project construction equipment over the course of the estimated construction period. These emissions also reflect the BAU scenario. The draft SCAQMD GHG threshold Guidance document released in October 2008 (SCAQMD 2008b, p. 3-8) recommends that construction emissions be amortized for a project lifetime of 30 years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies. Therefore, the Project's GHG emissions were spread evening over 30 years to yield and average of 95.62 $MTCO_2E$/yr. These results were included in the analysis of the Project's total GHG emissions in **Table 14 – Summary of Annual GHG Emissions**, below.

Long-Term Analysis

Area Source Emissions

CalEEMod estimates the GHG emissions associated with area sources which include landscape equipment emissions, architectural coating, consumer products, and hearths. Landscape equipment servicing the Project site create CO_2 resulting from fuel combustion based on the Project's land uses. Consumer products consist of consumer use of solvents and personal care products and architectural coatings consist of an average building square footage to be repainted each year. Hearth emissions do not apply to the Project because no dwelling units are proposed. The CalEEMod output contained in Appendix A shows that the GHG emissions from area sources are negligible and are reported at zero.

Energy-Related Emissions

CalEEMod estimates the GHG emissions associated with building electricity and natural gas usage (non-hearth) for each land use type. Electricity and natural gas used in buildings is typically generated at an

[10] CO_2E is the sum of CO_2 emissions estimated plus the sum of CH_4 and N_2O emissions estimated multiplied by their respective GWP.

off-site power plant which indirectly generates GHG emissions. The electricity intensity factor for the Project was modified to reflect the 2020 Renewable Portfolio Standard (RPS), which requires a 33 percent mix of renewable energy sources.[11] The default electricity intensity factor was used for the BAU.

The default energy usage values used in CalEEMod are based on the CEC sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies and reflect current 2008 Title 24 improvements (CalEEMod User's Guide, p. 30). The 2013 Title 24 standards were approved in May 2013 and take effect on January 1, 2014 and are 30 percent more efficient than the 2008 standards.[12] To reflect the 2013 Title 24 standards which the Project will be subject to, a 30 percent reduction was in energy usage was input in CalEEMod. In addition, the Project will install high-efficiency lighting throughout the Project as a design feature. A 40 percent reduction was input within CalEEMod to account for this design feature, which is conservative since Energy Star lighting is approximately 75 percent more efficient than traditional lighting.[13] The BAU scenario utilized historical 2005 Title 24 standards available within CalEEMod.

Table 10 – Energy-Related GHG Emissions, summarizes the GHG emissions estimates reported by CalEEMod for the Project and BAU scenario.

Table 10 – Energy-Related GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2E
Project 2020				
Electricity	748.65	0.04	0.02	754.70
Natural Gas	86.16	0.00	0.00	86.69
Total	**834.81**	**0.04**	**0.02**	**841.39**
BAU 2020				
Electricity	1,389.93	0.06	0.02	1,398.64
Natural Gas	121.24	0.00	0.00	121.97
Total	**1,511.17**	**0.06**	**0.02**	**1,520.61**

Mobile Source Emissions

CalEEMod estimates the annual GHG emissions from Project-related vehicle usage based on trip generation data contained in defaults or in Project-specific traffic analyses. The information provided in the Project-specific Traffic Study (WEBB 2013) was used herein, as described above on page 14. The GHG emissions estimated in CalEEMod for the Project include the Pavley motor vehicle standards for cars and light trucks and the Low Carbon Fuel Standard (LCFS) for motor vehicle fuels whereas the GHG

[11] To reflect a 33% renewable energy mix, the CalEEMod default CO_2 electricity intensity factor and associated renewable energy mix for SCE was adjusted. The 2007 intensity facto from the SCE 2007 PUP report (http://www.climateregistry.org/tools/carrot/carrot-public-reports.html) is 630.89 lbs/MWh and the associated renewable energy mix was 15%. The adjusted CO_2 electricity intensity factor reflecting the 33% RPS was calculated using the following equation: 630.89 lbs CO_2/MWh ÷ (1 - 0.15) x (1 - 0.33) = 497.29 lbs CO_2/MWh.

[12] http://www.energy.ca.gov/releases/2012_releases/2012-05-31_energy_commission_approves_more_efficient_buildings_nr.html

[13] http://www.energystar.gov/index.cfm?c=fixtures.pr_light_fixtures

emissions for the BAU scenario do not.[14] The following table shows the mobile source emissions from the Project and the BAU.

Table 11 – Mobile Source GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2E
Project 2020				
Mobile	3,196.48	0.14	0.00	3,199.32
BAU 2020				
Mobile	4,113.06	0.14	0.00	4,115.90

Solid Waste-Related Emissions

CalEEMod also calculates the GHG emissions associated with the disposal of solid waste into landfills based on default data contained within the model for waste disposal rates, composition, and the characteristics of landfills throughout the state. The waste generation rates and emission estimates were based on CalEEMod default factors. However, this analysis assumes that additional waste will be diverted from landfills through recycling, reduction in waste generated, and/or composting to meet the 2020 statewide goal of 75 percent waste diverted. [15]The BAU scenario assumes a solid waste diversion rate from landfills of 53 percent which is what was reported in 2006, the year AB 32 was passed.[16]

Table 12 –Waste-Related GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2E
Project 2020				
Solid Waste	35.93	2.12	0.00	80.52
BAU 2020				
Solid Waste	67.55	3.99	0.00	151.37

The table above indicates that annual GHG emissions from solid waste disposal are estimated to be approximately 80.52 $MTCO_2E$ annually and 151.37 $MTCO_2E$ annually for the Project and BAU, respectively. Biogenic CO_2 emissions (which equal the total CO_2 emissions in **Table 12**) were not included when CARB analyzed the GHG emissions inventory under AB 32. Therefore, they are not included in Project's total GHG emissions in **Table 14**, below.

Water-Related Energy Usage

Electricity is also indirectly used in water supply, treatment, and distribution, as well as wastewater treatment in southern California and plays a large role in GHG production.

There are three processes necessary to supply potable water to urban users (i.e., residential, commercial, and industrial): (1) supply and conveyance of the water from the source; (2) treatment of

[14] The 2020 non-Pavley emission factors were obtained from the CalEEMod User's Guide, Table 4-4.

[15] http://leginfo.ca.gov/pub/11-12/bill/asm/ab_0301-0350/ab_341_bill_20111006_chaptered.html

[16] http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversion.aspx

the water to potable standards; and (3) distribution of the water to individual users. After use, the wastewater is treated and either reused as reclaimed/recycled water or returned to the environment (CEC 2005, p. 21). CalEEMod calculates the GHG emissions from these processes based on default emissions factors and water/wastewater generation rates for a project's location. Default values were used for electricity intensity factor associated with the supply and conveyance of water from its source which assumes that the water is being imported from northern California.

The Project's indoor water use was reduced by 20 percent to account for the mandatory reduction outlined in the CalGreen code (CalGreen, p. 30). Outdoor water use from the Project will also be reduced as a result of Project compliance with the water efficient landscape ordinances enforced by the City under Municipal Code Section 17.276 (WMC) which requires a 30 percent reduction. Since neither of these requirements was in place when AB 32 was passed, the BAU scenario assumed no reductions were taken for indoor or outdoor water use.

The following table shows the GHG emissions from water-related energy usage for the Project and BAU.

Table 13 –Water-Related GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2E
Project 2020				
Water-Related Energy	223.67	1.63	0.05	271.88
BAU 2020				
Water-Related Energy	375.84	2.04	0.06	436.20

Total Project GHG Emissions

As shown in **Table 14 – Summary of Annual GHG Emissions,** using all the emissions quantified above, the total GHG emissions generated from the Project is approximately 4,453 $MTCO_2E$ per year which includes construction-related emissions amortized over a typical project life of 30 years. The GHG emissions from the BAU scenario are approximately 6,252 $MTCO_2E$ per year. The table below indicates that the majority of GHG emissions are from vehicle use (mobile sources) followed by energy consumption.

As shown in **Table 14**, a comparison of the Project's GHG emissions in 2020 and the BAU GHG emissions corresponds to a 28.7 percent reduction. This achieves the 28.5 percent reduction target set by AB 32.

Table 14 – Summary of Annual GHG Emissions

Source	Metric Tons per year (MT/y Metric Tons per year (MT/yr))	
	Project 2020	BAU 2020
Amortized Construction	95.62	95.62
Energy	841.39	1,520.61
Mobile	3,199.32	4,115.90
Solid Waste	44.59	83.83
Water	271.88	436.20
Total	**4,452.80**	**6,252.16**
Percent Reduction from BAU	**28.7**	

Conclusion

The above analysis indicates that the proposed Project along with its design feature of high efficiency lighting and the implementation of statewide GHG reduction measures would result in a 28.7 percent reduction compared to the BAU emissions level, which achieves the AB 32 reduction target of 28.5 percent. Therefore, the Project has demonstrated compliance with AB 32 and no additional analysis or mitigation is required.

Regarding compliance with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHG, the City does not currently have an adopted plan (e.g., Climate Action Plan, or GHG reduction plan) for the purposes of reducing GHG emissions. Although there are no plans or policies at the local level, the CARB Scoping Plan is applicable at the state level. As described above, beginning on page 24, AB 32 directed CARB to adopt the Scoping Plan for achieving GHG reductions.

Project consistency with the applicable measures in the Scoping Plan is shown in **Table 15.** Most of the reduction measures are not applicable to the Project and were not listed. The Project is consistent with the feasible measures. Examples of inapplicable measures include the California Cap-and-Trade Program, Industrial Emissions, High-Speed Rail, and Sustainable Forests.

Table 15 – CARB Scoping Plan Measure Project Comparison

Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. These are CARB enforced standards; vehicles that access the Project that are required to comply with the standards will comply with the strategy.
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all	Consistent. The Project will be compliant with the 2013 Title 24 standards, which become effective January 1, 2014.

retail providers of electricity in California.	
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. These are CARB enforced standards; vehicles that access the Project that are required to comply with the standards will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the Project that are required to comply with the standards will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the Project that are required to comply with the standards will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards and became mandatory in the 2010 edition of the Code (January 2011), on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The Project will be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	Consistent. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the Project that are required to comply with the measures will comply with the strategy.
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The Project will be required to comply with the 75 percent waste reduction required in AB 341.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The Project will comply with all applicable section of the City's Municipal Code, including Section 17.276 (WMC).
Source: CARB Scoping Plan	

Section 5 – References

References Cited

The following documents were referred to as general information sources during preparation of this document. They are available for public review at the locations abbreviated after each listing and spelled out at the end of this section. Some of these documents are also available at public libraries and at other public agency offices.

AB 32	Legislative Counsel of California, *Bill Information: AB 32 – California Global Warming Solutions Act of 2006*, September 2006. (Available at http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf, accessed February 13, 2013.)
CalEEMod	ENVIRON International Corporation, **Cal**ifornia **E**missions **E**stimator **Mod**el version 2011.1.1, February 2011. (Available at http://www.caleemod.com/, accessed February 2013, July 2013, and October 2013.)
CalEEMod User's Guide	ENVIRON International Corporation, **Cal**ifornia **E**missions **E**stimator **Mod**el User's Guide Version 2011.1, March 16, 2011. (Available at http://www.caleemod.com/, accessed February, July, and October 2013.)
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CEC 2005	California Energy Commission, *California's Water – Energy Relationship*, Publication CEC-700-2005-011-SF, Published November 2005. (Available at www.energy.ca.gov/publications/index.php, accessed February 13, 2013.)
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EIA	Energy Information Administration, *Emissions of Greenhouse Gases in the United States 2006*, U.S. Department of Energy, November 2007. (Available at ftp://ftp.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/ggrpt/057306.pdf, accessed February 13, 2013.)
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SCAQMD 2008a	South Coast Air Quality Management District, *Draft AQMD Staff CEQA Greenhouse Gas Significance Threshold*, October 22, 2008. (Available at http://www.aqmd.gov/ceqa/hdbk.html, accessed February 13, 2013.)
SCAQMD 2008b	South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008. (Available at http://www.aqmd.gov/ceqa/hdbk.html, accessed February 13, 2013.)
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WEBB 2013	Albert A. Webb Associates, *Traffic Impact Analysis Report, Rancon Medical Education Center*, July 2013. (Available at City of Wildomar.)
WMC	City of Wildomar, *Municipal Code Section 17.276 – Water Efficient Landscapes*, current through September 2012 code supplement. (Available at http://qcode.us/codes/wildomar/, accessed February 13, 2013.)

Location	Address
City of Wildomar	City of Wildomar 23873 Clinton Keith Road, Suite 201 Wildomar, CA 92595
SCAQMD	South Coast Air Quality Management District 21865 East Copley Drive Diamond Bar, CA 91765-4182

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APPENDIX A

CalEEMod OUTPUT FILES

Construction Schedule

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	Phase 1 Grading	Grading	2013/10/01	2014/01/31	5	89
2	Phase 1 Building Construction	Building Construction	2014/02/01	2015/01/30	5	260
3	Phase 1 Architectural Coating	Architectural Coating	2014/09/01	2015/03/06	5	135
4	Phase 1 Paving	Paving	2015/02/01	2015/02/28	5	20
5	Phase 2 Grading	Grading	2015/03/07	2015/09/05	5	130
6	Phase 2 Building Construction	Building Construction	2015/09/06	2016/09/05	5	261
7	Phase 2 Architectural Coating	Architectural Coating	2016/04/15	2016/10/31	5	142
8	Phase 2 Paving	Paving	2016/09/06	2016/10/03	5	20

Construction Equipment List

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	LoadFactor
Phase 1 Grading	Excavators	2	8	157	0.57
Phase 1 Grading	Graders	1	8	162	0.61
Phase 1 Grading	Rubber Tired Dozers	1	8	358	0.59
Phase 1 Grading	Scrapers	2	8	356	0.72
Phase 1 Grading	Tractors/Loaders/Backhoes	2	8	75	0.55
Phase 1 Building Construction	Cranes	1	7	208	0.43
Phase 1 Building Construction	Forklifts	3	8	149	0.3
Phase 1 Building Construction	Generator Sets	1	8	84	0.74
Phase 1 Building Construction	Tractors/Loaders/Backhoes	3	7	75	0.55
Phase 1 Building Construction	Welders	1	8	46	0.45
Phase 1 Architectural Coating	Air Compressors	1	6	78	0.48
Phase 1 Paving	Pavers	2	8	89	0.62
Phase 1 Paving	Paving Equipment	2	8	82	0.53
Phase 1 Paving	Rollers	2	8	84	0.56
Phase 2 Grading	Excavators	2	8	157	0.57
Phase 2 Grading	Graders	1	8	162	0.61
Phase 2 Grading	Rubber Tired Dozers	1	8	358	0.59
Phase 2 Grading	Scrapers	2	8	356	0.72
Phase 2 Grading	Tractors/Loaders/Backhoes	2	8	75	0.55
Phase 2 Building Construction	Cranes	1	7	208	0.43
Phase 2 Building Construction	Forklifts	3	8	149	0.3
Phase 2 Building Construction	Generator Sets	1	8	84	0.74
Phase 2 Building Construction	Tractors/Loaders/Backhoes	3	7	75	0.55
Phase 2 Building Construction	Welders	1	8	46	0.45
Phase 2 Architectural Coating	Air Compressors	1	6	78	0.48
Phase 2 Paving	Pavers	2	8	89	0.62
Phase 2 Paving	Paving Equipment	2	8	82	0.53
Phase 2 Paving	Rollers	2	8	84	0.56

RMEC

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	42.42	1000sqft
Medical Office Building	31.42	1000sqft
Office Park	294.9	1000sqft
Parking Lot	15.78	Acre
Fast Food Restaurant with Drive Thru	3	1000sqft
Regional Shopping Center	19.4	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 -

Land Use -

Construction Phase - see table

Trips and VMT - water truck trips

Vehicle Trips - per TIA and trip length spreadsheets

Water Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	11.98	97.90	54.33	0.10	7.34	4.61	11.95	3.32	4.61	7.93	0.00	11,120.81	0.00	1.07	0.00	11,143.33
2014	73.70	91.05	52.20	0.10	7.34	4.20	11.54	3.32	4.20	7.52	0.00	11,117.25	0.00	1.02	0.00	11,138.58
2015	74.64	83.60	50.28	0.10	8.97	3.82	12.79	3.32	3.82	7.14	0.00	11,112.43	0.00	0.95	0.00	11,132.43
2016	70.98	37.32	36.55	0.08	2.55	2.58	4.64	0.12	2.58	2.60	0.00	7,567.32	0.00	0.49	0.00	7,577.68
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	11.98	97.90	54.33	0.10	7.08	4.61	11.68	3.32	4.61	7.93	0.00	11,120.81	0.00	1.07	0.00	11,143.33
2014	73.70	91.05	52.20	0.10	7.08	4.20	11.27	3.32	4.20	7.52	0.00	11,117.25	0.00	1.02	0.00	11,138.58
2015	74.64	83.60	50.28	0.10	8.70	3.82	12.52	3.32	3.82	7.14	0.00	11,112.43	0.00	0.95	0.00	11,132.43
2016	70.98	37.32	36.55	0.08	0.12	2.58	2.60	0.12	2.58	2.60	0.00	7,567.32	0.00	0.49	0.00	7,577.68
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.23	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
Mobile	24.97	52.65	206.75	0.32	32.37	1.92	34.29	1.12	1.92	3.04		30,666.97		1.36		30,695.61
Total	**35.26**	**53.20**	**207.21**	**0.32**	**32.37**	**1.92**	**34.33**	**1.12**	**1.92**	**3.08**		**31,328.50**		**1.37**	**0.01**	**31,361.17**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.23	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
Mobile	24.97	52.65	206.75	0.32	32.37	1.92	34.29	1.12	1.92	3.04		30,666.97		1.36		30,695.61
Total	**35.26**	**53.20**	**207.21**	**0.32**	**32.37**	**1.92**	**34.33**	**1.12**	**1.92**	**3.08**		**31,328.50**		**1.37**	**0.01**	**31,361.17**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase 1 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	lb/day										lb/day					
Fugitive Dust					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.85	97.47	52.85	0.10		4.59	4.59		4.59	4.59		10,856.66		1.06		10,878.90
Total	**11.85**	**97.47**	**52.85**	**0.10**	**7.06**	**4.59**	**11.65**	**3.31**	**4.59**	**7.90**		**10,856.66**		**1.06**		**10,878.90**

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	0.00	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	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.27		0.00		54.30
Worker	0.10	0.11	1.33	0.00	0.26	0.01	0.27	0.01	0.01	0.02		209.88		0.01		210.13
Total	**0.13**	**0.43**	**1.49**	**0.00**	**0.28**	**0.02**	**0.30**	**0.01**	**0.02**	**0.03**		**264.15**		**0.01**		**264.43**

3.2 Phase 1 Grading - 2013

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					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.85	97.47	52.85	0.10		4.59	4.59		4.59	4.59	0.00	10,856.66		1.06		10,878.90
Total	**11.85**	**97.47**	**52.85**	**0.10**	**7.06**	**4.59**	**11.65**	**3.31**	**4.59**	**7.90**	**0.00**	**10,856.66**		**1.06**		**10,878.90**

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	0.00	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	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.27		0.00		54.30
Worker	0.10	0.11	1.33	0.00	0.01	0.01	0.02	0.01	0.01	0.02		209.88		0.01		210.13
Total	**0.13**	**0.43**	**1.49**	**0.00**	**0.01**	**0.02**	**0.03**	**0.01**	**0.02**	**0.03**		**264.15**		**0.01**		**264.43**

3.2 Phase 1 Grading - 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	lb/day										lb/day					
Fugitive Dust					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18		10,856.65		1.00		10,877.72
Total	**11.22**	**90.65**	**50.83**	**0.10**	**7.06**	**4.18**	**11.24**	**3.31**	**4.18**	**7.49**		**10,856.65**		**1.00**		**10,877.72**

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	0.00	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	0.02	0.29	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.45		0.00		54.48
Worker	0.09	0.10	1.22	0.00	0.26	0.01	0.27	0.01	0.01	0.02		206.15		0.01		206.38
Total	**0.11**	**0.39**	**1.37**	**0.00**	**0.28**	**0.02**	**0.30**	**0.01**	**0.02**	**0.03**		**260.60**		**0.01**		**260.86**

3.2 Phase 1 Grading - 2014

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					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18	0.00	10,856.65		1.00		10,877.72
Total	**11.22**	**90.65**	**50.83**	**0.10**	**7.06**	**4.18**	**11.24**	**3.31**	**4.18**	**7.49**	**0.00**	**10,856.65**		**1.00**		**10,877.72**

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	0.00	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	0.02	0.29	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.45		0.00		54.48
Worker	0.09	0.10	1.22	0.00	0.01	0.01	0.02	0.01	0.01	0.02		206.15		0.01		206.38
Total	**0.11**	**0.39**	**1.37**	**0.00**	**0.01**	**0.02**	**0.03**	**0.01**	**0.02**	**0.03**		**260.60**		**0.01**		**260.86**

3.3 Phase 1 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	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51
Total	**4.74**	**32.06**	**23.20**	**0.04**		**2.02**	**2.02**		**2.02**	**2.02**		**4,040.61**		**0.42**		**4,049.51**

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	0.00	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	0.74	9.34	4.67	0.02	0.59	0.30	0.88	0.05	0.30	0.34		1,742.52		0.04		1,743.28
Worker	0.57	0.64	7.63	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,288.42		0.07		1,289.88
Total	**1.31**	**9.98**	**12.30**	**0.03**	**2.22**	**0.36**	**2.57**	**0.11**	**0.36**	**0.46**		**3,030.94**		**0.11**		**3,033.16**

3.3 Phase 1 Building Construction - 2014

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	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51
Total	**4.74**	**32.06**	**23.20**	**0.04**		**2.02**	**2.02**		**2.02**	**2.02**	**0.00**	**4,040.61**		**0.42**		**4,049.51**

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	0.00	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	0.74	9.34	4.67	0.02	0.05	0.30	0.34	0.05	0.30	0.34		1,742.52		0.04		1,743.28
Worker	0.57	0.64	7.63	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,288.42		0.07		1,289.88
Total	**1.31**	**9.98**	**12.30**	**0.03**	**0.11**	**0.36**	**0.46**	**0.11**	**0.36**	**0.46**		**3,030.94**		**0.11**		**3,033.16**

3.3 Phase 1 Building Construction - 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	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**		**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.68	8.54	4.32	0.02	0.59	0.27	0.85	0.05	0.27	0.31		1,744.17		0.03		1,744.87
Worker	0.52	0.58	6.97	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,257.94		0.06		1,259.28
Total	**1.20**	**9.12**	**11.29**	**0.03**	**2.22**	**0.33**	**2.54**	**0.11**	**0.33**	**0.43**		**3,002.11**		**0.09**		**3,004.15**

3.3 Phase 1 Building Construction - 2015

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	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**	**0.00**	**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.68	8.54	4.32	0.02	0.05	0.27	0.31	0.05	0.27	0.31		1,744.17		0.03		1,744.87
Worker	0.52	0.58	6.97	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,257.94		0.06		1,259.28
Total	**1.20**	**9.12**	**11.29**	**0.03**	**0.11**	**0.33**	**0.43**	**0.11**	**0.33**	**0.43**		**3,002.11**		**0.09**		**3,004.15**

3.4 Phase 1 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	lb/day										lb/day					
Archit. Coating	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	**67.54**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**		**281.19**		**0.04**		**282.03**

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	0.00	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
Worker	0.11	0.13	1.53	0.00	0.33	0.01	0.34	0.01	0.01	0.02		257.68		0.01		257.98
Total	**0.11**	**0.13**	**1.53**	**0.00**	**0.33**	**0.01**	**0.34**	**0.01**	**0.01**	**0.02**		**257.68**		**0.01**		**257.98**

3.4 Phase 1 Architectural Coating - 2014

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	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**67.54**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

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	0.00	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
Worker	0.11	0.13	1.53	0.00	0.01	0.01	0.02	0.01	0.01	0.02		257.68		0.01		257.98
Total	**0.11**	**0.13**	**1.53**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**257.68**		**0.01**		**257.98**

3.4 Phase 1 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	**67.50**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

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	0.00	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
Worker	0.10	0.12	1.39	0.00	0.33	0.01	0.34	0.01	0.01	0.02		251.59		0.01		251.86
Total	**0.10**	**0.12**	**1.39**	**0.00**	**0.33**	**0.01**	**0.34**	**0.01**	**0.01**	**0.02**		**251.59**		**0.01**		**251.86**

3.4 Phase 1 Architectural Coating - 2015

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	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**67.50**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

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	0.00	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
Worker	0.10	0.12	1.39	0.00	0.01	0.01	0.02	0.01	0.01	0.02		251.59		0.01		251.86
Total	**0.10**	**0.12**	**1.39**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**251.59**		**0.01**		**251.86**

3.5 Phase 1 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	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.96**	**30.10**	**20.54**	**0.03**		**2.54**	**2.54**		**2.54**	**2.54**		**2,917.65**		**0.44**		**2,926.87**

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	0.00	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	0.02	0.27	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.06	0.07	0.84	0.00	0.20	0.01	0.20	0.01	0.01	0.01		150.95		0.01		151.11
Total	**0.08**	**0.34**	**0.97**	**0.00**	**0.22**	**0.02**	**0.23**	**0.01**	**0.02**	**0.02**		**205.46**		**0.01**		**205.64**

3.5 Phase 1 Paving - 2015

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	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.96**	**30.10**	**20.54**	**0.03**		**2.54**	**2.54**		**2.54**	**2.54**	**0.00**	**2,917.65**		**0.44**		**2,926.87**

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	0.00	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	0.02	0.27	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.06	0.07	0.84	0.00	0.01	0.01	0.01	0.01	0.01	0.01		150.95		0.01		151.11
Total	**0.08**	**0.34**	**0.97**	**0.00**	**0.01**	**0.02**	**0.02**	**0.01**	**0.02**	**0.02**		**205.46**		**0.01**		**205.64**

3.6 Phase 2 Grading - 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	lb/day										lb/day					
Fugitive Dust					8.69	0.00	8.69	3.31	0.00	3.31						0.00
Off-Road	10.57	83.24	49.03	0.10		3.80	3.80		3.80	3.80		10,856.65		0.94		10,876.42
Total	**10.57**	**83.24**	**49.03**	**0.10**	**8.69**	**3.80**	**12.49**	**3.31**	**3.80**	**7.11**		**10,856.65**		**0.94**		**10,876.42**

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	0.00	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	0.02	0.27	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.08	0.09	1.12	0.00	0.26	0.01	0.27	0.01	0.01	0.02		201.27		0.01		201.49
Total	**0.10**	**0.36**	**1.25**	**0.00**	**0.28**	**0.02**	**0.30**	**0.01**	**0.02**	**0.03**		**255.78**		**0.01**		**256.02**

3.6 Phase 2 Grading - 2015

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					8.69	0.00	8.69	3.31	0.00	3.31						0.00
Off-Road	10.57	83.24	49.03	0.10		3.80	3.80		3.80	3.80	0.00	10,856.65		0.94		10,876.42
Total	**10.57**	**83.24**	**49.03**	**0.10**	**8.69**	**3.80**	**12.49**	**3.31**	**3.80**	**7.11**	**0.00**	**10,856.65**		**0.94**		**10,876.42**

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	0.00	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	0.02	0.27	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.08	0.09	1.12	0.00	0.01	0.01	0.02	0.01	0.01	0.02		201.27		0.01		201.49
Total	**0.10**	**0.36**	**1.25**	**0.00**	**0.01**	**0.02**	**0.03**	**0.01**	**0.02**	**0.03**		**255.78**		**0.01**		**256.02**

3.7 Phase 2 Building Construction - 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	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**		**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.68	8.54	4.32	0.02	0.59	0.27	0.85	0.05	0.27	0.31		1,744.17		0.03		1,744.87
Worker	0.52	0.58	6.97	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,257.94		0.06		1,259.28
Total	**1.20**	**9.12**	**11.29**	**0.03**	**2.22**	**0.33**	**2.54**	**0.11**	**0.33**	**0.43**		**3,002.11**		**0.09**		**3,004.15**

3.7 Phase 2 Building Construction - 2015

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	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**	**0.00**	**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.68	8.54	4.32	0.02	0.05	0.27	0.31	0.05	0.27	0.31		1,744.17		0.03		1,744.87
Worker	0.52	0.58	6.97	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,257.94		0.06		1,259.28
Total	**1.20**	**9.12**	**11.29**	**0.03**	**0.11**	**0.33**	**0.43**	**0.11**	**0.33**	**0.43**		**3,002.11**		**0.09**		**3,004.15**

3.7 Phase 2 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10
Total	**3.99**	**26.52**	**22.80**	**0.04**		**1.58**	**1.58**		**1.58**	**1.58**		**4,040.61**		**0.36**		**4,048.10**

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	lb/day										lb/day					
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
Vendor	0.63	7.79	4.03	0.02	0.59	0.24	0.83	0.05	0.24	0.28		1,752.69		0.03		1,753.34
Worker	0.49	0.53	6.53	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,244.02		0.06		1,245.30
Total	**1.12**	**8.32**	**10.56**	**0.03**	**2.22**	**0.30**	**2.52**	**0.11**	**0.30**	**0.40**		**2,996.71**		**0.09**		**2,998.64**

3.7 Phase 2 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10
Total	**3.99**	**26.52**	**22.80**	**0.04**		**1.58**	**1.58**		**1.58**	**1.58**	**0.00**	**4,040.61**		**0.36**		**4,048.10**

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	lb/day										lb/day					
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
Vendor	0.63	7.79	4.03	0.02	0.05	0.24	0.28	0.05	0.24	0.28		1,752.69		0.03		1,753.34
Worker	0.49	0.53	6.53	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,244.02		0.06		1,245.30
Total	**1.12**	**8.32**	**10.56**	**0.03**	**0.11**	**0.30**	**0.40**	**0.11**	**0.30**	**0.40**		**2,996.71**		**0.09**		**2,998.64**

3.8 Phase 2 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	63.78					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	**64.15**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**		**281.19**		**0.03**		**281.89**

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	lb/day										lb/day					
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
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
Worker	0.10	0.11	1.31	0.00	0.33	0.01	0.34	0.01	0.01	0.02		248.80		0.01		249.06
Total	**0.10**	**0.11**	**1.31**	**0.00**	**0.33**	**0.01**	**0.34**	**0.01**	**0.01**	**0.02**		**248.80**		**0.01**		**249.06**

3.8 Phase 2 Architectural Coating - 2016

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	63.78					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	**64.15**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**281.19**		**0.03**		**281.89**

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	lb/day										lb/day					
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
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
Worker	0.10	0.11	1.31	0.00	0.01	0.01	0.02	0.01	0.01	0.02		248.80		0.01		249.06
Total	**0.10**	**0.11**	**1.31**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**248.80**		**0.01**		**249.06**

3.9 Phase 2 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.65**	**28.21**	**20.38**	**0.03**		**2.35**	**2.35**		**2.35**	**2.35**		**2,917.64**		**0.41**		**2,926.29**

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	0.00	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	0.02	0.24	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.77		0.00		54.79
Worker	0.06	0.06	0.78	0.00	0.20	0.01	0.20	0.01	0.01	0.01		149.28		0.01		149.44
Total	**0.08**	**0.30**	**0.91**	**0.00**	**0.22**	**0.02**	**0.23**	**0.01**	**0.02**	**0.02**		**204.05**		**0.01**		**204.23**

3.9 Phase 2 Paving - 2016

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	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.65**	**28.21**	**20.38**	**0.03**		**2.35**	**2.35**		**2.35**	**2.35**	**0.00**	**2,917.64**		**0.41**		**2,926.29**

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	0.00	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	0.02	0.24	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.77		0.00		54.79
Worker	0.06	0.06	0.78	0.00	0.01	0.01	0.01	0.01	0.01	0.01		149.28		0.01		149.44
Total	**0.08**	**0.30**	**0.91**	**0.00**	**0.01**	**0.02**	**0.02**	**0.01**	**0.02**	**0.02**		**204.05**		**0.01**		**204.23**

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	lb/day										lb/day					
Mitigated	24.97	52.65	206.75	0.32	32.37	1.92	34.29	1.12	1.92	3.04		30,666.97		1.36		30,695.61
Unmitigated	24.97	52.65	206.75	0.32	32.37	1.92	34.29	1.12	1.92	3.04		30,666.97		1.36		30,695.61
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	953.01	1,386.96	1042.50	274,974	274,974
General Office Building	540.86	116.23	47.93	561,509	561,509
Medical Office Building	986.90	244.76	42.42	845,809	845,809
Office Park	3,919.22	563.26	259.51	4,919,765	4,919,765
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,744.06	2,030.02	1025.29	775,212	775,212
Total	8,144.05	4,341.23	2,417.65	7,377,269	7,377,269

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Fast Food Restaurant with Drive Thru	2.00	2.00	2.00	2.20	78.80	19.00
General Office Building	4.60	4.60	4.60	33.00	48.00	19.00
Medical Office Building	4.60	4.60	4.60	29.60	51.40	19.00
Office Park	5.40	5.40	5.40	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Regional Shopping Center	2.00	2.00	2.00	16.30	64.70	19.00

5.0 Energy Detail

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	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
NaturalGas Unmitigated	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
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

	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	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2280.9	0.02	0.22	0.19	0.00		0.00	0.02		0.00	0.02		268.34		0.01	0.00	269.97
General Office Building	424.2	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		49.91		0.00	0.00	50.21
Medical Office Building	314.2	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		36.96		0.00	0.00	37.19
Office Park	2480.39	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		291.81		0.01	0.01	293.59
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Regional Shopping Center	123.31	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		14.51		0.00	0.00	14.60
Total		**0.05**	**0.54**	**0.46**	**0.00**		**0.00**	**0.04**		**0.00**	**0.04**		**661.53**		**0.02**	**0.01**	**665.56**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.2809	0.02	0.22	0.19	0.00		0.00	0.02		0.00	0.02		268.34		0.01	0.00	269.97
General Office Building	0.4242	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		49.91		0.00	0.00	50.21
Medical Office Building	0.3142	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		36.96		0.00	0.00	37.19
Office Park	2.48039	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		291.81		0.01	0.01	293.59
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Regional Shopping Center	0.12331	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		14.51		0.00	0.00	14.60
Total		**0.05**	**0.54**	**0.46**	**0.00**		**0.00**	**0.04**		**0.00**	**0.04**		**661.53**		**0.02**	**0.01**	**665.56**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.23	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	10.23	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	lb/day										lb/day					
Architectural Coating	2.48					0.00	0.00		0.00	0.00						0.00
Consumer Products	7.74					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
Total	**10.22**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.48					0.00	0.00		0.00	0.00						0.00
Consumer Products	7.74					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
Total	**10.22**	**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

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

RMEC

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	42.42	1000sqft
Medical Office Building	31.42	1000sqft
Office Park	294.9	1000sqft
Parking Lot	15.78	Acre
Fast Food Restaurant with Drive Thru	3	1000sqft
Regional Shopping Center	19.4	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 -

Land Use -

Construction Phase - see table

Trips and VMT - water truck trips

Vehicle Trips - per TIA and trip length spreadsheets

Water Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	11.97	97.93	54.19	0.10	7.34	4.61	11.95	3.32	4.61	7.93	0.00	11,097.24	0.00	1.07	0.00	11,119.74
2014	73.72	91.07	52.07	0.10	7.34	4.20	11.54	3.32	4.20	7.52	0.00	11,094.04	0.00	1.01	0.00	11,115.36
2015	74.63	83.61	50.16	0.10	8.97	3.82	12.79	3.32	3.82	7.14	0.00	11,089.71	0.00	0.95	0.00	11,109.70
2016	70.97	37.58	36.19	0.08	2.55	2.58	4.64	0.12	2.58	2.60	0.00	7,387.00	0.00	0.49	0.00	7,397.27
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2013	11.97	97.93	54.19	0.10	7.08	4.61	11.68	3.32	4.61	7.93	0.00	11,097.24	0.00	1.07	0.00	11,119.74
2014	73.72	91.07	52.07	0.10	7.08	4.20	11.27	3.32	4.20	7.52	0.00	11,094.04	0.00	1.01	0.00	11,115.36
2015	74.63	83.61	50.16	0.10	8.70	3.82	12.52	3.32	3.82	7.14	0.00	11,089.71	0.00	0.95	0.00	11,109.70
2016	70.97	37.58	36.19	0.08	0.12	2.58	2.60	0.12	2.58	2.60	0.00	7,387.00	0.00	0.49	0.00	7,397.27
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.23	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
Mobile	23.18	53.94	207.53	0.29	32.37	1.96	34.33	1.12	1.96	3.09		27,967.87		1.31		27,995.33
Total	**33.47**	**54.49**	**207.99**	**0.29**	**32.37**	**1.96**	**34.37**	**1.12**	**1.96**	**3.13**		**28,629.40**		**1.32**	**0.01**	**28,660.89**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	10.23	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
Mobile	23.18	53.94	207.53	0.29	32.37	1.96	34.33	1.12	1.96	3.09		27,967.87		1.31		27,995.33
Total	**33.47**	**54.49**	**207.99**	**0.29**	**32.37**	**1.96**	**34.37**	**1.12**	**1.96**	**3.13**		**28,629.40**		**1.32**	**0.01**	**28,660.89**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Phase 1 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	lb/day										lb/day					
Fugitive Dust					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.85	97.47	52.85	0.10		4.59	4.59		4.59	4.59		10,856.66		1.06		10,878.90
Total	**11.85**	**97.47**	**52.85**	**0.10**	**7.06**	**4.59**	**11.65**	**3.31**	**4.59**	**7.90**		**10,856.66**		**1.06**		**10,878.90**

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	0.00	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	0.33	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01		53.80		0.00		53.82
Worker	0.10	0.13	1.16	0.00	0.26	0.01	0.27	0.01	0.01	0.02		186.78		0.01		187.01
Total	**0.13**	**0.46**	**1.34**	**0.00**	**0.28**	**0.02**	**0.30**	**0.01**	**0.02**	**0.03**		**240.58**		**0.01**		**240.83**

3.2 Phase 1 Grading - 2013

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					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.85	97.47	52.85	0.10		4.59	4.59		4.59	4.59	0.00	10,856.66		1.06		10,878.90
Total	**11.85**	**97.47**	**52.85**	**0.10**	**7.06**	**4.59**	**11.65**	**3.31**	**4.59**	**7.90**	**0.00**	**10,856.66**		**1.06**		**10,878.90**

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	0.00	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	0.33	0.18	0.00	0.00	0.01	0.01	0.00	0.01	0.01		53.80		0.00		53.82
Worker	0.10	0.13	1.16	0.00	0.01	0.01	0.02	0.01	0.01	0.02		186.78		0.01		187.01
Total	**0.13**	**0.46**	**1.34**	**0.00**	**0.01**	**0.02**	**0.03**	**0.01**	**0.02**	**0.03**		**240.58**		**0.01**		**240.83**

3.2 Phase 1 Grading - 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	lb/day										lb/day					
Fugitive Dust					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18		10,856.65		1.00		10,877.72
Total	**11.22**	**90.65**	**50.83**	**0.10**	**7.06**	**4.18**	**11.24**	**3.31**	**4.18**	**7.49**		**10,856.65**		**1.00**		**10,877.72**

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	0.00	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	0.02	0.30	0.17	0.00	0.02	0.01	0.03	0.00	0.01	0.01		53.97		0.00		54.00
Worker	0.09	0.11	1.07	0.00	0.26	0.01	0.27	0.01	0.01	0.02		183.42		0.01		183.64
Total	**0.11**	**0.41**	**1.24**	**0.00**	**0.28**	**0.02**	**0.30**	**0.01**	**0.02**	**0.03**		**237.39**		**0.01**		**237.64**

3.2 Phase 1 Grading - 2014

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					7.06	0.00	7.06	3.31	0.00	3.31						0.00
Off-Road	11.22	90.65	50.83	0.10		4.18	4.18		4.18	4.18	0.00	10,856.65		1.00		10,877.72
Total	**11.22**	**90.65**	**50.83**	**0.10**	**7.06**	**4.18**	**11.24**	**3.31**	**4.18**	**7.49**	**0.00**	**10,856.65**		**1.00**		**10,877.72**

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	0.00	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	0.02	0.30	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01		53.97		0.00		54.00
Worker	0.09	0.11	1.07	0.00	0.01	0.01	0.02	0.01	0.01	0.02		183.42		0.01		183.64
Total	**0.11**	**0.41**	**1.24**	**0.00**	**0.01**	**0.02**	**0.03**	**0.01**	**0.02**	**0.03**		**237.39**		**0.01**		**237.64**

3.3 Phase 1 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	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51
Total	**4.74**	**32.06**	**23.20**	**0.04**		**2.02**	**2.02**		**2.02**	**2.02**		**4,040.61**		**0.42**		**4,049.51**

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	0.00	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	0.78	9.66	5.34	0.02	0.59	0.30	0.89	0.05	0.30	0.35		1,727.09		0.04		1,727.88
Worker	0.56	0.71	6.66	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,146.38		0.06		1,147.73
Total	**1.34**	**10.37**	**12.00**	**0.03**	**2.22**	**0.36**	**2.58**	**0.11**	**0.36**	**0.47**		**2,873.47**		**0.10**		**2,875.61**

3.3 Phase 1 Building Construction - 2014

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	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51
Total	**4.74**	**32.06**	**23.20**	**0.04**		**2.02**	**2.02**		**2.02**	**2.02**	**0.00**	**4,040.61**		**0.42**		**4,049.51**

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	0.00	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	0.78	9.66	5.34	0.02	0.05	0.30	0.35	0.05	0.30	0.35		1,727.09		0.04		1,727.88
Worker	0.56	0.71	6.66	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,146.38		0.06		1,147.73
Total	**1.34**	**10.37**	**12.00**	**0.03**	**0.11**	**0.36**	**0.47**	**0.11**	**0.36**	**0.47**		**2,873.47**		**0.10**		**2,875.61**

3.3 Phase 1 Building Construction - 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	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**		**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.71	8.79	4.99	0.02	0.59	0.27	0.86	0.05	0.27	0.32		1,728.52		0.03		1,729.24
Worker	0.51	0.64	6.07	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,119.00		0.06		1,120.24
Total	**1.22**	**9.43**	**11.06**	**0.03**	**2.22**	**0.33**	**2.55**	**0.11**	**0.33**	**0.44**		**2,847.52**		**0.09**		**2,849.48**

3.3 Phase 1 Building Construction - 2015

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	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**	**0.00**	**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.71	8.79	4.99	0.02	0.05	0.27	0.32	0.05	0.27	0.32		1,728.52		0.03		1,729.24
Worker	0.51	0.64	6.07	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,119.00		0.06		1,120.24
Total	**1.22**	**9.43**	**11.06**	**0.03**	**0.11**	**0.33**	**0.44**	**0.11**	**0.33**	**0.44**		**2,847.52**		**0.09**		**2,849.48**

3.4 Phase 1 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	lb/day										lb/day					
Archit. Coating	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24		281.19		0.04		282.03
Total	**67.54**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**		**281.19**		**0.04**		**282.03**

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	0.00	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
Worker	0.11	0.14	1.33	0.00	0.33	0.01	0.34	0.01	0.01	0.02		229.28		0.01		229.55
Total	**0.11**	**0.14**	**1.33**	**0.00**	**0.33**	**0.01**	**0.34**	**0.01**	**0.01**	**0.02**		**229.28**		**0.01**		**229.55**

3.4 Phase 1 Architectural Coating - 2014

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	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.45	2.77	1.92	0.00		0.24	0.24		0.24	0.24	0.00	281.19		0.04		282.03
Total	**67.54**	**2.77**	**1.92**	**0.00**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**281.19**		**0.04**		**282.03**

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	0.00	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
Worker	0.11	0.14	1.33	0.00	0.01	0.01	0.02	0.01	0.01	0.02		229.28		0.01		229.55
Total	**0.11**	**0.14**	**1.33**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**229.28**		**0.01**		**229.55**

3.4 Phase 1 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	**67.50**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

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	0.00	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
Worker	0.10	0.13	1.21	0.00	0.33	0.01	0.34	0.01	0.01	0.02		223.80		0.01		224.05
Total	**0.10**	**0.13**	**1.21**	**0.00**	**0.33**	**0.01**	**0.34**	**0.01**	**0.01**	**0.02**		**223.80**		**0.01**		**224.05**

3.4 Phase 1 Architectural Coating - 2015

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	67.09					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**67.50**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

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	0.00	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
Worker	0.10	0.13	1.21	0.00	0.01	0.01	0.02	0.01	0.01	0.02		223.80		0.01		224.05
Total	**0.10**	**0.13**	**1.21**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**223.80**		**0.01**		**224.05**

3.5 Phase 1 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	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.96**	**30.10**	**20.54**	**0.03**		**2.54**	**2.54**		**2.54**	**2.54**		**2,917.65**		**0.44**		**2,926.87**

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	0.00	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	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.06	0.08	0.73	0.00	0.20	0.01	0.20	0.01	0.01	0.01		134.28		0.01		134.43
Total	**0.08**	**0.35**	**0.89**	**0.00**	**0.22**	**0.02**	**0.23**	**0.01**	**0.02**	**0.02**		**188.30**		**0.01**		**188.47**

3.5 Phase 1 Paving - 2015

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	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.96**	**30.10**	**20.54**	**0.03**		**2.54**	**2.54**		**2.54**	**2.54**	**0.00**	**2,917.65**		**0.44**		**2,926.87**

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	0.00	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	0.02	0.27	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.06	0.08	0.73	0.00	0.01	0.01	0.01	0.01	0.01	0.01		134.28		0.01		134.43
Total	**0.08**	**0.35**	**0.89**	**0.00**	**0.01**	**0.02**	**0.02**	**0.01**	**0.02**	**0.02**		**188.30**		**0.01**		**188.47**

3.6 Phase 2 Grading - 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	lb/day										lb/day					
Fugitive Dust					8.69	0.00	8.69	3.31	0.00	3.31						0.00
Off-Road	10.57	83.24	49.03	0.10		3.80	3.80		3.80	3.80		10,856.65		0.94		10,876.42
Total	**10.57**	**83.24**	**49.03**	**0.10**	**8.69**	**3.80**	**12.49**	**3.31**	**3.80**	**7.11**		**10,856.65**		**0.94**		**10,876.42**

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	0.00	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	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.08	0.10	0.97	0.00	0.26	0.01	0.27	0.01	0.01	0.02		179.04		0.01		179.24
Total	**0.10**	**0.37**	**1.13**	**0.00**	**0.28**	**0.02**	**0.30**	**0.01**	**0.02**	**0.03**		**233.06**		**0.01**		**233.28**

3.6 Phase 2 Grading - 2015

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					8.69	0.00	8.69	3.31	0.00	3.31						0.00
Off-Road	10.57	83.24	49.03	0.10		3.80	3.80		3.80	3.80	0.00	10,856.65		0.94		10,876.42
Total	**10.57**	**83.24**	**49.03**	**0.10**	**8.69**	**3.80**	**12.49**	**3.31**	**3.80**	**7.11**	**0.00**	**10,856.65**		**0.94**		**10,876.42**

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	0.00	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	0.02	0.27	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.08	0.10	0.97	0.00	0.01	0.01	0.02	0.01	0.01	0.02		179.04		0.01		179.24
Total	**0.10**	**0.37**	**1.13**	**0.00**	**0.01**	**0.02**	**0.03**	**0.01**	**0.02**	**0.03**		**233.06**		**0.01**		**233.28**

3.7 Phase 2 Building Construction - 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	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**		**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.71	8.79	4.99	0.02	0.59	0.27	0.86	0.05	0.27	0.32		1,728.52		0.03		1,729.24
Worker	0.51	0.64	6.07	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,119.00		0.06		1,120.24
Total	**1.22**	**9.43**	**11.06**	**0.03**	**2.22**	**0.33**	**2.55**	**0.11**	**0.33**	**0.44**		**2,847.52**		**0.09**		**2,849.48**

3.7 Phase 2 Building Construction - 2015

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	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	**4.34**	**29.16**	**22.98**	**0.04**		**1.80**	**1.80**		**1.80**	**1.80**	**0.00**	**4,040.61**		**0.39**		**4,048.81**

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	0.00	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	0.71	8.79	4.99	0.02	0.05	0.27	0.32	0.05	0.27	0.32		1,728.52		0.03		1,729.24
Worker	0.51	0.64	6.07	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,119.00		0.06		1,120.24
Total	**1.22**	**9.43**	**11.06**	**0.03**	**0.11**	**0.33**	**0.44**	**0.11**	**0.33**	**0.44**		**2,847.52**		**0.09**		**2,849.48**

3.7 Phase 2 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10
Total	**3.99**	**26.52**	**22.80**	**0.04**		**1.58**	**1.58**		**1.58**	**1.58**		**4,040.61**		**0.36**		**4,048.10**

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	lb/day										lb/day					
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
Vendor	0.66	7.99	4.70	0.02	0.59	0.24	0.83	0.05	0.24	0.29		1,736.80		0.03		1,737.47
Worker	0.48	0.58	5.68	0.01	1.63	0.06	1.69	0.06	0.06	0.12		1,107.00		0.06		1,108.17
Total	**1.14**	**8.57**	**10.38**	**0.03**	**2.22**	**0.30**	**2.52**	**0.11**	**0.30**	**0.41**		**2,843.80**		**0.09**		**2,845.64**

3.7 Phase 2 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10
Total	**3.99**	**26.52**	**22.80**	**0.04**		**1.58**	**1.58**		**1.58**	**1.58**	**0.00**	**4,040.61**		**0.36**		**4,048.10**

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	lb/day										lb/day					
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
Vendor	0.66	7.99	4.70	0.02	0.05	0.24	0.29	0.05	0.24	0.29		1,736.80		0.03		1,737.47
Worker	0.48	0.58	5.68	0.01	0.06	0.06	0.12	0.06	0.06	0.12		1,107.00		0.06		1,108.17
Total	**1.14**	**8.57**	**10.38**	**0.03**	**0.11**	**0.30**	**0.41**	**0.11**	**0.30**	**0.41**		**2,843.80**		**0.09**		**2,845.64**

3.8 Phase 2 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	63.78					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	**64.15**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**		**281.19**		**0.03**		**281.89**

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	lb/day										lb/day					
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
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
Worker	0.10	0.12	1.14	0.00	0.33	0.01	0.34	0.01	0.01	0.02		221.40		0.01		221.63
Total	**0.10**	**0.12**	**1.14**	**0.00**	**0.33**	**0.01**	**0.34**	**0.01**	**0.01**	**0.02**		**221.40**		**0.01**		**221.63**

3.8 Phase 2 Architectural Coating - 2016

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	63.78					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	**64.15**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**281.19**		**0.03**		**281.89**

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	lb/day										lb/day					
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
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
Worker	0.10	0.12	1.14	0.00	0.01	0.01	0.02	0.01	0.01	0.02		221.40		0.01		221.63
Total	**0.10**	**0.12**	**1.14**	**0.00**	**0.01**	**0.01**	**0.02**	**0.01**	**0.01**	**0.02**		**221.40**		**0.01**		**221.63**

3.9 Phase 2 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.65**	**28.21**	**20.38**	**0.03**		**2.35**	**2.35**		**2.35**	**2.35**		**2,917.64**		**0.41**		**2,926.29**

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	0.00	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	0.02	0.25	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.27		0.00		54.30
Worker	0.06	0.07	0.68	0.00	0.20	0.01	0.20	0.01	0.01	0.01		132.84		0.01		132.98
Total	**0.08**	**0.32**	**0.83**	**0.00**	**0.22**	**0.02**	**0.23**	**0.01**	**0.02**	**0.02**		**187.11**		**0.01**		**187.28**

3.9 Phase 2 Paving - 2016

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	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29
Paving	2.07					0.00	0.00		0.00	0.00						0.00
Total	**6.65**	**28.21**	**20.38**	**0.03**		**2.35**	**2.35**		**2.35**	**2.35**	**0.00**	**2,917.64**		**0.41**		**2,926.29**

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	0.00	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	0.02	0.25	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01		54.27		0.00		54.30
Worker	0.06	0.07	0.68	0.00	0.01	0.01	0.01	0.01	0.01	0.01		132.84		0.01		132.98
Total	**0.08**	**0.32**	**0.83**	**0.00**	**0.01**	**0.02**	**0.02**	**0.01**	**0.02**	**0.02**		**187.11**		**0.01**		**187.28**

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	lb/day										lb/day					
Mitigated	23.18	53.94	207.53	0.29	32.37	1.96	34.33	1.12	1.96	3.09		27,967.87		1.31		27,995.33
Unmitigated	23.18	53.94	207.53	0.29	32.37	1.96	34.33	1.12	1.96	3.09		27,967.87		1.31		27,995.33
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	953.01	1,386.96	1042.50	274,974	274,974
General Office Building	540.86	116.23	47.93	561,509	561,509
Medical Office Building	986.90	244.76	42.42	845,809	845,809
Office Park	3,919.22	563.26	259.51	4,919,765	4,919,765
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,744.06	2,030.02	1025.29	775,212	775,212
Total	8,144.05	4,341.23	2,417.65	7,377,269	7,377,269

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Fast Food Restaurant with Drive Thru	2.00	2.00	2.00	2.20	78.80	19.00
General Office Building	4.60	4.60	4.60	33.00	48.00	19.00
Medical Office Building	4.60	4.60	4.60	29.60	51.40	19.00
Office Park	5.40	5.40	5.40	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Regional Shopping Center	2.00	2.00	2.00	16.30	64.70	19.00

5.0 Energy Detail

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	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
NaturalGas Unmitigated	0.06	0.55	0.46	0.00		0.00	0.04		0.00	0.04		661.53		0.01	0.01	665.56
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

	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	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2280.9	0.02	0.22	0.19	0.00		0.00	0.02		0.00	0.02		268.34		0.01	0.00	269.97
General Office Building	424.2	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		49.91		0.00	0.00	50.21
Medical Office Building	314.2	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		36.96		0.00	0.00	37.19
Office Park	2480.39	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		291.81		0.01	0.01	293.59
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Regional Shopping Center	123.31	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		14.51		0.00	0.00	14.60
Total		**0.05**	**0.54**	**0.46**	**0.00**		**0.00**	**0.04**		**0.00**	**0.04**		**661.53**		**0.02**	**0.01**	**665.56**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.2809	0.02	0.22	0.19	0.00		0.00	0.02		0.00	0.02		268.34		0.01	0.00	269.97
General Office Building	0.4242	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00		49.91		0.00	0.00	50.21
Medical Office Building	0.3142	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00		36.96		0.00	0.00	37.19
Office Park	2.48039	0.03	0.24	0.20	0.00		0.00	0.02		0.00	0.02		291.81		0.01	0.01	293.59
Parking Lot	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Regional Shopping Center	0.12331	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00		14.51		0.00	0.00	14.60
Total		**0.05**	**0.54**	**0.46**	**0.00**		**0.00**	**0.04**		**0.00**	**0.04**		**661.53**		**0.02**	**0.01**	**665.56**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.23	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	10.23	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	lb/day										lb/day					
Architectural Coating	2.48					0.00	0.00		0.00	0.00						0.00
Consumer Products	7.74					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
Total	**10.22**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.48					0.00	0.00		0.00	0.00						0.00
Consumer Products	7.74					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
Total	**10.22**	**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

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

GHG Emissions Output

- Annual Construction (2013-2016)
- Annual Project Operation (2020)
- Annual BAU Operation (2020)

RMEC

Riverside-South Coast County, Annual Construction

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	42.42	1000sqft
Medical Office Building	31.42	1000sqft
Office Park	294.9	1000sqft
Parking Lot	15.78	Acre
Fast Food Restaurant with Drive Thru	3	1000sqft
Regional Shopping Center	19.4	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 -

Land Use -

Construction Phase - see table

Trips and VMT - water truck trips

Vehicle Trips -

Water Mitigation -

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	0.39	3.23	1.79	0.00	0.32	0.15	0.47	0.15	0.15	0.30	0.00	332.35	332.35	0.03	0.00	333.03
2014	3.82	6.17	4.94	0.01	0.57	0.34	0.91	0.17	0.34	0.51	0.00	888.53	888.53	0.07	0.00	889.99
2015	2.64	7.83	5.36	0.01	0.70	0.39	1.09	0.24	0.39	0.63	0.00	1,026.99	1,026.99	0.08	0.00	1,028.76
2016	5.08	3.54	3.37	0.01	0.20	0.21	0.41	0.01	0.21	0.22	0.00	617.91	617.91	0.04	0.00	618.80
Total	**11.93**	**20.77**	**15.46**	**0.03**	**1.79**	**1.09**	**2.88**	**0.57**	**1.09**	**1.66**	**0.00**	**2,865.78**	**2,865.78**	**0.22**	**0.00**	**2,870.58**

2.1 Overall Construction

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	0.39	3.23	1.79	0.00	0.31	0.15	0.47	0.15	0.15	0.30	0.00	332.35	332.35	0.03	0.00	333.03
2014	3.82	6.17	4.94	0.01	0.33	0.34	0.67	0.17	0.34	0.51	0.00	888.53	888.53	0.07	0.00	889.99
2015	2.64	7.83	5.36	0.01	0.57	0.39	0.96	0.24	0.39	0.63	0.00	1,026.99	1,026.99	0.08	0.00	1,028.76
2016	5.08	3.54	3.37	0.01	0.01	0.21	0.22	0.01	0.21	0.22	0.00	617.91	617.91	0.04	0.00	618.80
Total	**11.93**	**20.77**	**15.46**	**0.03**	**1.22**	**1.09**	**2.32**	**0.57**	**1.09**	**1.66**	**0.00**	**2,865.78**	**2,865.78**	**0.22**	**0.00**	**2,870.58**

3.2 Phase 1 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					0.31	0.00	0.31	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.39	3.22	1.74	0.00		0.15	0.15		0.15	0.15	0.00	324.93	324.93	0.03	0.00	325.59
Total	**0.39**	**3.22**	**1.74**	**0.00**	**0.31**	**0.15**	**0.46**	**0.15**	**0.15**	**0.30**	**0.00**	**324.93**	**324.93**	**0.03**	**0.00**	**325.59**

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	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	0.00	1.62	1.62	0.00	0.00	1.62
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.81	5.81	0.00	0.00	5.81
Total	**0.00**	**0.01**	**0.05**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.43**	**7.43**	**0.00**	**0.00**	**7.43**

3.2 Phase 1 Grading - 2013

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					0.31	0.00	0.31	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.39	3.22	1.74	0.00		0.15	0.15		0.15	0.15	0.00	324.93	324.93	0.03	0.00	325.59
Total	**0.39**	**3.22**	**1.74**	**0.00**	**0.31**	**0.15**	**0.46**	**0.15**	**0.15**	**0.30**	**0.00**	**324.93**	**324.93**	**0.03**	**0.00**	**325.59**

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	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	0.00	1.62	1.62	0.00	0.00	1.62
Worker	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.81	5.81	0.00	0.00	5.81
Total	**0.00**	**0.01**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.43**	**7.43**	**0.00**	**0.00**	**7.43**

3.2 Phase 1 Grading - 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					0.31	0.00	0.31	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	1.04	0.58	0.00		0.05	0.05		0.05	0.05	0.00	113.23	113.23	0.01	0.00	113.45
Total	**0.13**	**1.04**	**0.58**	**0.00**	**0.31**	**0.05**	**0.36**	**0.15**	**0.05**	**0.20**	**0.00**	**113.23**	**113.23**	**0.01**	**0.00**	**113.45**

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	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	0.57	0.57	0.00	0.00	0.57
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.99	1.99	0.00	0.00	1.99
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.56**	**2.56**	**0.00**	**0.00**	**2.56**

3.2 Phase 1 Grading - 2014

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					0.31	0.00	0.31	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	1.04	0.58	0.00		0.05	0.05		0.05	0.05	0.00	113.23	113.23	0.01	0.00	113.45
Total	**0.13**	**1.04**	**0.58**	**0.00**	**0.31**	**0.05**	**0.36**	**0.15**	**0.05**	**0.20**	**0.00**	**113.23**	**113.23**	**0.01**	**0.00**	**113.45**

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	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	0.57	0.57	0.00	0.00	0.57
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.99	1.99	0.00	0.00	1.99
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.56**	**2.56**	**0.00**	**0.00**	**2.56**

3.3 Phase 1 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	0.56	3.81	2.76	0.01		0.24	0.24		0.24	0.24	0.00	436.09	436.09	0.05	0.00	437.05
Total	**0.56**	**3.81**	**2.76**	**0.01**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**436.09**	**436.09**	**0.05**	**0.00**	**437.05**

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	0.00	0.00
Vendor	0.09	1.11	0.61	0.00	0.06	0.04	0.10	0.01	0.04	0.04	0.00	187.42	187.42	0.00	0.00	187.50
Worker	0.06	0.08	0.83	0.00	0.18	0.01	0.18	0.01	0.01	0.01	0.00	128.51	128.51	0.01	0.00	128.66
Total	**0.15**	**1.19**	**1.44**	**0.00**	**0.24**	**0.05**	**0.28**	**0.02**	**0.05**	**0.05**	**0.00**	**315.93**	**315.93**	**0.01**	**0.00**	**316.16**

3.3 Phase 1 Building Construction - 2014

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	0.56	3.81	2.76	0.01		0.24	0.24		0.24	0.24	0.00	436.09	436.09	0.05	0.00	437.05
Total	**0.56**	**3.81**	**2.76**	**0.01**		**0.24**	**0.24**		**0.24**	**0.24**	**0.00**	**436.09**	**436.09**	**0.05**	**0.00**	**437.05**

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	0.00	0.00
Vendor	0.09	1.11	0.61	0.00	0.01	0.04	0.04	0.01	0.04	0.04	0.00	187.42	187.42	0.00	0.00	187.50
Worker	0.06	0.08	0.83	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	128.51	128.51	0.01	0.00	128.66
Total	**0.15**	**1.19**	**1.44**	**0.00**	**0.02**	**0.05**	**0.05**	**0.02**	**0.05**	**0.05**	**0.00**	**315.93**	**315.93**	**0.01**	**0.00**	**316.16**

3.3 Phase 1 Building Construction - 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	0.05	0.32	0.25	0.00		0.02	0.02		0.02	0.02	0.00	40.31	40.31	0.00	0.00	40.39
Total	**0.05**	**0.32**	**0.25**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**40.31**	**40.31**	**0.00**	**0.00**	**40.39**

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	0.00	0.00
Vendor	0.01	0.09	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	17.34	17.34	0.00	0.00	17.35
Worker	0.01	0.01	0.07	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	11.60	11.60	0.00	0.00	11.61
Total	**0.02**	**0.10**	**0.12**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**28.94**	**28.94**	**0.00**	**0.00**	**28.96**

3.3 Phase 1 Building Construction - 2015

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	0.05	0.32	0.25	0.00		0.02	0.02		0.02	0.02	0.00	40.31	40.31	0.00	0.00	40.39
Total	**0.05**	**0.32**	**0.25**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**40.31**	**40.31**	**0.00**	**0.00**	**40.39**

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	0.00	0.00
Vendor	0.01	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.34	17.34	0.00	0.00	17.35
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.60	11.60	0.00	0.00	11.61
Total	**0.02**	**0.10**	**0.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**28.94**	**28.94**	**0.00**	**0.00**	**28.96**

3.4 Phase 1 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	2.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.12	0.08	0.00		0.01	0.01		0.01	0.01	0.00	11.22	11.22	0.00	0.00	11.25
Total	**2.97**	**0.12**	**0.08**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**11.22**	**11.22**	**0.00**	**0.00**	**11.25**

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	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	0.00	0.00
Worker	0.00	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	9.50	9.50	0.00	0.00	9.51
Total	**0.00**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**9.50**	**9.50**	**0.00**	**0.00**	**9.51**

3.4 Phase 1 Architectural Coating - 2014

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	2.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.12	0.08	0.00		0.01	0.01		0.01	0.01	0.00	11.22	11.22	0.00	0.00	11.25
Total	**2.97**	**0.12**	**0.08**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**11.22**	**11.22**	**0.00**	**0.00**	**11.25**

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	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	0.00	0.00
Worker	0.00	0.01	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.50	9.50	0.00	0.00	9.51
Total	**0.00**	**0.01**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**9.50**	**9.50**	**0.00**	**0.00**	**9.51**

3.4 Phase 1 Architectural Coating - 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					
Archit. Coating	1.58					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.06	0.04	0.00		0.01	0.01		0.01	0.01	0.00	5.99	5.99	0.00	0.00	6.01
Total	**1.59**	**0.06**	**0.04**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**5.99**	**5.99**	**0.00**	**0.00**	**6.01**

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	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	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.95	4.95	0.00	0.00	4.96
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**4.95**	**4.95**	**0.00**	**0.00**	**4.96**

3.4 Phase 1 Architectural Coating - 2015

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	1.58					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.06	0.04	0.00		0.01	0.01		0.01	0.01	0.00	5.99	5.99	0.00	0.00	6.01
Total	**1.59**	**0.06**	**0.04**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**5.99**	**5.99**	**0.00**	**0.00**	**6.01**

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	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	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	4.95	0.00	0.00	4.96
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.95**	**4.95**	**0.00**	**0.00**	**4.96**

3.5 Phase 1 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	0.05	0.30	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.54
Paving	0.02					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.07**	**0.30**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.54**

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	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	0.49	0.49	0.00	0.00	0.49
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	1.27	0.00	0.00	1.27
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.76**	**1.76**	**0.00**	**0.00**	**1.76**

3.5 Phase 1 Paving - 2015

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	0.05	0.30	0.21	0.00		0.03	0.03		0.03	0.03	0.00	26.46	26.46	0.00	0.00	26.54
Paving	0.02					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.07**	**0.30**	**0.21**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.54**

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	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	0.49	0.49	0.00	0.00	0.49
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	1.27	0.00	0.00	1.27
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.76**	**1.76**	**0.00**	**0.00**	**1.76**

3.6 Phase 2 Grading - 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					0.57	0.00	0.57	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.69	5.41	3.19	0.01		0.25	0.25		0.25	0.25	0.00	640.01	640.01	0.06	0.00	641.18
Total	**0.69**	**5.41**	**3.19**	**0.01**	**0.57**	**0.25**	**0.82**	**0.23**	**0.25**	**0.48**	**0.00**	**640.01**	**640.01**	**0.06**	**0.00**	**641.18**

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	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20	3.20	0.00	0.00	3.20
Worker	0.01	0.01	0.07	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	10.96	10.96	0.00	0.00	10.98
Total	**0.01**	**0.03**	**0.08**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**14.16**	**14.16**	**0.00**	**0.00**	**14.18**

3.6 Phase 2 Grading - 2015

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					0.57	0.00	0.57	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.69	5.41	3.19	0.01		0.25	0.25		0.25	0.25	0.00	640.01	640.01	0.06	0.00	641.18
Total	**0.69**	**5.41**	**3.19**	**0.01**	**0.57**	**0.25**	**0.82**	**0.23**	**0.25**	**0.48**	**0.00**	**640.01**	**640.01**	**0.06**	**0.00**	**641.18**

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	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20	3.20	0.00	0.00	3.20
Worker	0.01	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.96	10.96	0.00	0.00	10.98
Total	**0.01**	**0.03**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**14.16**	**14.16**	**0.00**	**0.00**	**14.18**

3.7 Phase 2 Building Construction - 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	0.18	1.22	0.97	0.00		0.08	0.08		0.08	0.08	0.00	153.91	153.91	0.01	0.00	154.22
Total	**0.18**	**1.22**	**0.97**	**0.00**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**153.91**	**153.91**	**0.01**	**0.00**	**154.22**

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	0.00	0.00
Vendor	0.03	0.36	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	66.21	66.21	0.00	0.00	66.23
Worker	0.02	0.02	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.01	0.00	44.28	44.28	0.00	0.00	44.33
Total	**0.05**	**0.38**	**0.47**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.02**	**0.00**	**110.49**	**110.49**	**0.00**	**0.00**	**110.56**

3.7 Phase 2 Building Construction - 2015

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	0.18	1.22	0.97	0.00		0.08	0.08		0.08	0.08	0.00	153.91	153.91	0.01	0.00	154.22
Total	**0.18**	**1.22**	**0.97**	**0.00**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**153.91**	**153.91**	**0.01**	**0.00**	**154.22**

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	0.00	0.00
Vendor	0.03	0.36	0.20	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00	66.21	66.21	0.00	0.00	66.23
Worker	0.02	0.02	0.27	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	44.28	44.28	0.00	0.00	44.33
Total	**0.05**	**0.38**	**0.47**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.02**	**0.00**	**110.49**	**110.49**	**0.00**	**0.00**	**110.56**

3.7 Phase 2 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.35	2.35	2.02	0.00		0.14	0.14		0.14	0.14	0.00	324.32	324.32	0.03	0.00	324.92
Total	**0.35**	**2.35**	**2.02**	**0.00**		**0.14**	**0.14**		**0.14**	**0.14**	**0.00**	**324.32**	**324.32**	**0.03**	**0.00**	**324.92**

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	0.00	0.00
Vendor	0.06	0.68	0.39	0.00	0.05	0.02	0.07	0.00	0.02	0.03	0.00	140.18	140.18	0.00	0.00	140.24
Worker	0.04	0.05	0.53	0.00	0.13	0.01	0.14	0.01	0.01	0.01	0.00	92.29	92.29	0.00	0.00	92.39
Total	**0.10**	**0.73**	**0.92**	**0.00**	**0.18**	**0.03**	**0.21**	**0.01**	**0.03**	**0.04**	**0.00**	**232.47**	**232.47**	**0.00**	**0.00**	**232.63**

3.7 Phase 2 Building Construction - 2016

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	0.35	2.35	2.02	0.00		0.14	0.14		0.14	0.14	0.00	324.32	324.32	0.03	0.00	324.92
Total	**0.35**	**2.35**	**2.02**	**0.00**		**0.14**	**0.14**		**0.14**	**0.14**	**0.00**	**324.32**	**324.32**	**0.03**	**0.00**	**324.92**

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	0.00	0.00
Vendor	0.06	0.68	0.39	0.00	0.00	0.02	0.03	0.00	0.02	0.03	0.00	140.18	140.18	0.00	0.00	140.24
Worker	0.04	0.05	0.53	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	92.29	92.29	0.00	0.00	92.39
Total	**0.10**	**0.73**	**0.92**	**0.00**	**0.01**	**0.03**	**0.04**	**0.01**	**0.03**	**0.04**	**0.00**	**232.47**	**232.47**	**0.00**	**0.00**	**232.63**

3.8 Phase 2 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.53					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.17	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.11	18.11	0.00	0.00	18.15
Total	**4.56**	**0.17**	**0.13**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**18.11**	**18.11**	**0.00**	**0.00**	**18.15**

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	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	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.81	14.81	0.00	0.00	14.82
Total	**0.01**	**0.01**	**0.08**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**14.81**	**14.81**	**0.00**	**0.00**	**14.82**

3.8 Phase 2 Architectural Coating - 2016

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	4.53					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.17	0.13	0.00		0.01	0.01		0.01	0.01	0.00	18.11	18.11	0.00	0.00	18.15
Total	**4.56**	**0.17**	**0.13**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**18.11**	**18.11**	**0.00**	**0.00**	**18.15**

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	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	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.81	14.81	0.00	0.00	14.82
Total	**0.01**	**0.01**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**14.81**	**14.81**	**0.00**	**0.00**	**14.82**

3.9 Phase 2 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.05	0.28	0.20	0.00		0.02	0.02		0.02	0.02	0.00	26.46	26.46	0.00	0.00	26.54
Paving	0.02					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.07**	**0.28**	**0.20**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.54**

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	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	0.50	0.50	0.00	0.00	0.50
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	0.00	0.00	1.25
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.75**	**1.75**	**0.00**	**0.00**	**1.75**

3.9 Phase 2 Paving - 2016

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	0.05	0.28	0.20	0.00		0.02	0.02		0.02	0.02	0.00	26.46	26.46	0.00	0.00	26.54
Paving	0.02					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.07**	**0.28**	**0.20**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**26.46**	**26.46**	**0.00**	**0.00**	**26.54**

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	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	0.00	0.50	0.50	0.00	0.00	0.50
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25	0.00	0.00	1.25
				0.00	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.75**	**1.75**	**0.00**	**0.00**	**1.75**

RMEC 2020

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	42.42	1000sqft
Medical Office Building	31.42	1000sqft
Office Park	294.9	1000sqft
Parking Lot	15.78	Acre
Fast Food Restaurant with Drive Thru	3	1000sqft
Regional Shopping Center	19.4	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 - CO2 intensity factor adjusted for 2020 RPS fo 33%

Land Use - land use per plot plan

Construction Phase - construction modeled separately

Off-road Equipment - construction modeled separately

Trips and VMT -

Vehicle Trips - per TIA and trip length spreadsheets

Energy Use -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - solid waste reduction per AB 341

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										MT/yr					
Area											0.00	0.00	0.00	0.00	0.00	0.00
Energy											0.00	1,133.26	1,133.26	0.06	0.02	1,142.20
Mobile											0.00	3,196.48	3,196.48	0.14	0.00	3,199.32
Waste											143.71	0.00	143.71	8.49	0.00	322.07
Water											0.00	291.63	291.63	2.04	0.06	351.99
Total											**143.71**	**4,621.37**	**4,765.08**	**10.73**	**0.08**	**5,015.58**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	0.00	0.00	0.00	0.00	0.00
Energy											0.00	834.82	834.82	0.05	0.02	841.39
Mobile											0.00	3,196.48	3,196.48	0.14	0.00	3,199.32
Waste											35.93	0.00	35.93	2.12	0.00	80.52
Water											0.00	223.67	223.67	1.63	0.05	271.88
Total											**35.93**	**4,254.97**	**4,290.90**	**3.94**	**0.07**	**4,393.11**

3.0 Construction Detail

3.1 Mitigation Measures Construction

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											0.00	3,196.48	3,196.48	0.14	0.00	3,199.32
Unmitigated											0.00	3,196.48	3,196.48	0.14	0.00	3,199.32
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	953.01	1,386.96	1042.50	274,974	274,974
General Office Building	540.86	116.23	47.93	561,509	561,509
Medical Office Building	986.90	244.76	42.42	845,809	845,809
Office Park	3,919.22	563.26	259.51	4,919,765	4,919,765
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,744.06	2,030.02	1025.29	775,212	775,212
Total	8,144.05	4,341.23	2,417.65	7,377,269	7,377,269

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Fast Food Restaurant with Drive Thru	2.00	2.00	2.00	2.20	78.80	19.00

	Miles			Trip %		
Land Use	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	4.60	4.60	4.60	33.00	48.00	19.00
Medical Office Building	4.60	4.60	4.60	29.60	51.40	19.00
Office Park	5.40	5.40	5.40	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Regional Shopping Center	2.00	2.00	2.00	16.30	64.70	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive 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											0.00	748.65	748.65	0.04	0.02	754.70
Electricity Unmitigated											0.00	1,023.73	1,023.73	0.06	0.02	1,032.01
NaturalGas Mitigated											0.00	86.16	86.16	0.00	0.00	86.69
NaturalGas Unmitigated											0.00	109.52	109.52	0.00	0.00	110.19
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

	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	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	832530											0.00	44.43	44.43	0.00	0.00	44.70
General Office Building	154833											0.00	8.26	8.26	0.00	0.00	8.31
Medical Office Building	114683											0.00	6.12	6.12	0.00	0.00	6.16
Office Park	905343											0.00	48.31	48.31	0.00	0.00	48.61
Parking Lot	0											0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	45008											0.00	2.40	2.40	0.00	0.00	2.42
Total												**0.00**	**109.52**	**109.52**	**0.00**	**0.00**	**110.20**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	758964											0.00	40.50	40.50	0.00	0.00	40.75
General Office Building	108383											0.00	5.78	5.78	0.00	0.00	5.82
Medical Office Building	80278.1											0.00	4.28	4.28	0.00	0.00	4.31
Office Park	633740											0.00	33.82	33.82	0.00	0.00	34.02
Parking Lot	0											0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	33251.6											0.00	1.77	1.77	0.00	0.00	1.79
Total												**0.00**	**86.15**	**86.15**	**0.00**	**0.00**	**86.69**

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			
Fast Food Restaurant with Drive Thru	157200					35.46	0.00	0.00	35.75
General Office Building	453470					102.29	0.01	0.00	103.11
Medical Office Building	335880					75.76	0.00	0.00	76.38
Office Park	3.28813e+006					741.69	0.04	0.02	747.69
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	303804					68.53	0.00	0.00	69.08
Total						**1,023.73**	**0.05**	**0.02**	**1,032.01**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Fast Food Restaurant with Drive Thru	133035					30.01	0.00	0.00	30.25
General Office Building	335330					75.64	0.00	0.00	76.25
Medical Office Building	248375					56.03	0.00	0.00	56.48
Office Park	2.39016e+006					539.14	0.03	0.01	543.50
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	212081					47.84	0.00	0.00	48.23
Total						**748.66**	**0.03**	**0.01**	**754.71**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated											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										MT/yr					
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											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
Total											**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											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
Total											**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					223.67	1.63	0.05	271.88
Unmitigated					291.63	2.04	0.06	351.99
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			
Fast Food Restaurant with Drive Thru	0.910601 / 0.0581235					2.83	0.03	0.00	3.65
General Office Building	7.53947 / 4.62096					33.81	0.23	0.01	40.68
Medical Office Building	3.9426 / 0.750971					13.51	0.12	0.00	17.07
Office Park	52.4137 / 32.1245					235.04	1.61	0.04	282.83
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Regional Shopping Center	1.43701 / 0.880746					6.44	0.04	0.00	7.75
Total						**291.63**	**2.03**	**0.05**	**351.98**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Fast Food Restaurant with Drive Thru	0.728481 / 0.0406864					2.25	0.02	0.00	2.91
General Office Building	6.03157 / 3.23467					25.89	0.19	0.01	31.38
Medical Office Building	3.15408 / 0.52568					10.62	0.10	0.00	13.46
Office Park	41.9309 / 22.4872					179.98	1.29	0.04	218.15
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Regional Shopping Center	1.14961 / 0.616522					4.93	0.04	0.00	5.98
Total						**223.67**	**1.64**	**0.05**	**271.88**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					35.93	2.12	0.00	80.52
Unmitigated					143.71	8.49	0.00	322.07
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			
Fast Food Restaurant with Drive Thru	34.56					7.02	0.41	0.00	15.72
General Office Building	39.45					8.01	0.47	0.00	17.95
Medical Office Building	339.34					68.88	4.07	0.00	154.37
Office Park	274.26					55.67	3.29	0.00	124.77
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	20.37					4.13	0.24	0.00	9.27
Total						**143.71**	**8.48**	**0.00**	**322.08**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Fast Food Restaurant with Drive Thru	8.64					1.75	0.10	0.00	3.93
General Office Building	9.8625					2.00	0.12	0.00	4.49
Medical Office Building	84.835					17.22	1.02	0.00	38.59
Office Park	68.565					13.92	0.82	0.00	31.19
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	5.0925					1.03	0.06	0.00	2.32
Total						**35.92**	**2.12**	**0.00**	**80.52**

9.0 Vegetation

RMEC BAU 2020

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	42.42	1000sqft
Medical Office Building	31.42	1000sqft
Office Park	294.9	1000sqft
Parking Lot	15.78	Acre
Fast Food Restaurant with Drive Thru	3	1000sqft
Regional Shopping Center	19.4	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 -

Land Use - land use per plot plan

Construction Phase - construction modeled separately

Off-road Equipment - construction modeled separately

Trips and VMT -

Vehicle Trips - per TIA and trip length spreadsheets

Energy Use -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - solid waste diversion rate per 2006 report for Unincorporated Riverside County

Vechicle Emission Factors - non-pavley CO2 emission factors per CalEEMod User's Guide Table 4.4

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										MT/yr					
Area											0.00	0.00	0.00	0.00	0.00	0.00
Energy											0.00	1,511.16	1,511.16	0.07	0.03	1,520.61
Mobile											0.00	4,113.06	4,113.06	0.14	0.00	4,115.90
Waste											143.71	0.00	143.71	8.49	0.00	322.07
Water											0.00	375.84	375.84	2.04	0.06	436.20
Total											**143.71**	**6,000.06**	**6,143.77**	**10.74**	**0.09**	**6,394.78**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	0.00	0.00	0.00	0.00	0.00
Energy											0.00	1,511.16	1,511.16	0.07	0.03	1,520.61
Mobile											0.00	4,113.06	4,113.06	0.14	0.00	4,115.90
Waste											67.55	0.00	67.55	3.99	0.00	151.37
Water											0.00	375.84	375.84	2.04	0.06	436.20
Total											**67.55**	**6,000.06**	**6,067.61**	**6.24**	**0.09**	**6,224.08**

3.0 Construction Detail

3.1 Mitigation Measures Construction

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											0.00	4,113.06	4,113.06	0.14	0.00	4,115.90
Unmitigated											0.00	4,113.06	4,113.06	0.14	0.00	4,115.90
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	953.01	1,386.96	1042.50	274,974	274,974
General Office Building	540.86	116.23	47.93	561,509	561,509
Medical Office Building	986.90	244.76	42.42	845,809	845,809
Office Park	3,919.22	563.26	259.51	4,919,765	4,919,765
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,744.06	2,030.02	1025.29	775,212	775,212
Total	8,144.05	4,341.23	2,417.65	7,377,269	7,377,269

4.3 Trip Type Information

	Miles			Trip %		
Land Use	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
Fast Food Restaurant with Drive Thru	2.00	2.00	2.00	2.20	78.80	19.00

	Miles			Trip %		
Land Use	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	4.60	4.60	4.60	33.00	48.00	19.00
Medical Office Building	4.60	4.60	4.60	29.60	51.40	19.00
Office Park	5.40	5.40	5.40	33.00	48.00	19.00
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00
Regional Shopping Center	2.00	2.00	2.00	16.30	64.70	19.00

5.0 Energy Detail

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											0.00	1,389.93	1,389.93	0.06	0.02	1,398.64
Electricity Unmitigated											0.00	1,389.93	1,389.93	0.06	0.02	1,398.64
NaturalGas Mitigated											0.00	121.24	121.24	0.00	0.00	121.97
NaturalGas Unmitigated											0.00	121.24	121.24	0.00	0.00	121.97
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

	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	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	838050											0.00	44.72	44.72	0.00	0.00	44.99
General Office Building	178164											0.00	9.51	9.51	0.00	0.00	9.57
Medical Office Building	131964											0.00	7.04	7.04	0.00	0.00	7.08
Office Park	1.07344e+006											0.00	57.28	57.28	0.00	0.00	57.63
Parking Lot	0											0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	50246											0.00	2.68	2.68	0.00	0.00	2.70
Total												**0.00**	**121.23**	**121.23**	**0.00**	**0.00**	**121.97**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	838050											0.00	44.72	44.72	0.00	0.00	44.99
General Office Building	178164											0.00	9.51	9.51	0.00	0.00	9.57
Medical Office Building	131964											0.00	7.04	7.04	0.00	0.00	7.08
Office Park	1.07344e+006											0.00	57.28	57.28	0.00	0.00	57.63
Parking Lot	0											0.00	0.00	0.00	0.00	0.00	0.00
Regional Shopping Center	50246											0.00	2.68	2.68	0.00	0.00	2.70
Total												**0.00**	**121.23**	**121.23**	**0.00**	**0.00**	**121.97**

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			
Fast Food Restaurant with Drive Thru	162360					47.23	0.00	0.00	47.52
General Office Building	478073					139.06	0.01	0.00	139.93
Medical Office Building	354103					103.00	0.00	0.00	103.64
Office Park	3.46213e+006					1,007.03	0.05	0.02	1,013.34
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	321846					93.62	0.00	0.00	94.20
Total						**1,389.94**	**0.06**	**0.02**	**1,398.63**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Fast Food Restaurant with Drive Thru	162360					47.23	0.00	0.00	47.52
General Office Building	478073					139.06	0.01	0.00	139.93
Medical Office Building	354103					103.00	0.00	0.00	103.64
Office Park	3.46213e+006					1,007.03	0.05	0.02	1,013.34
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	321846					93.62	0.00	0.00	94.20
Total						**1,389.94**	**0.06**	**0.02**	**1,398.63**

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										MT/yr					
Mitigated											0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated											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										MT/yr					
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											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
Total											**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											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
Total											**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					375.84	2.04	0.06	436.20
Unmitigated					375.84	2.04	0.06	436.20
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			
Fast Food Restaurant with Drive Thru	0.910601 / 0.0581235					3.65	0.03	0.00	4.47
General Office Building	7.53947 / 4.62096					43.57	0.23	0.01	50.45
Medical Office Building	3.9426 / 0.750971					17.40	0.12	0.00	20.96
Office Park	52.4137 / 32.1245					302.91	1.61	0.04	350.71
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Regional Shopping Center	1.43701 / 0.880746					8.30	0.04	0.00	9.62
Total						**375.83**	**2.03**	**0.05**	**436.21**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Fast Food Restaurant with Drive Thru	0.910601 / 0.0581235					3.65	0.03	0.00	4.47
General Office Building	7.53947 / 4.62096					43.57	0.23	0.01	50.45
Medical Office Building	3.9426 / 0.750971					17.40	0.12	0.00	20.96
Office Park	52.4137 / 32.1245					302.91	1.61	0.04	350.71
Parking Lot	0 / 0					0.00	0.00	0.00	0.00
Regional Shopping Center	1.43701 / 0.880746					8.30	0.04	0.00	9.62
Total						**375.83**	**2.03**	**0.05**	**436.21**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					67.55	3.99	0.00	151.37
Unmitigated					143.71	8.49	0.00	322.07
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			
Fast Food Restaurant with Drive Thru	34.56					7.02	0.41	0.00	15.72
General Office Building	39.45					8.01	0.47	0.00	17.95
Medical Office Building	339.34					68.88	4.07	0.00	154.37
Office Park	274.26					55.67	3.29	0.00	124.77
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	20.37					4.13	0.24	0.00	9.27
Total						**143.71**	**8.48**	**0.00**	**322.08**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Fast Food Restaurant with Drive Thru	16.2432					3.30	0.19	0.00	7.39
General Office Building	18.5415					3.76	0.22	0.00	8.43
Medical Office Building	159.49					32.37	1.91	0.00	72.55
Office Park	128.902					26.17	1.55	0.00	58.64
Parking Lot	0					0.00	0.00	0.00	0.00
Regional Shopping Center	9.5739					1.94	0.11	0.00	4.36
Total						**67.54**	**3.98**	**0.00**	**151.37**

9.0 Vegetation

APPENDIX B

VMT Analysis Data

Business Park Land Use

Zone	Percent Diverted from Existing	Miles to Proj	Percent Trips	VMT	# of Trips	Primary # of Trips	Primary VMT
A	0.1%	9.5	10%	3,654.65	384.70	384.70	3,654.65
B	0.2%	8.3	5%	1,596.51	192.35	192.35	1,596.51
C	0.3%	5	18%	3,462.30	692.46	671.18	3,355.88
D	0.4%	3	5%	577.05	192.35	192.35	577.05
E	1.0%	1.4		-	-	-	-
F	2.2%	0.6		-	-	-	-
G	0.6%	2.4	5%	461.64	192.35	192.35	461.64
H	1.3%	1		-	-	-	-
I	0.5%	2.5	2%	192.35	76.94	76.94	192.35
J	0.4%	3		-	-	-	-
K	0.3%	4.6	3%	530.89	115.41	115.41	530.89
L	0.2%	7.8	2%	600.13	76.94	76.94	600.13
M	1.3%	1		-	-	-	-
N	0.7%	2	3%	230.82	115.41	109.00	218.01
O	0.4%	3.1		-	-	-	-
P	0.4%	3.3	5%	634.76	192.35	186.64	615.93
Q	0.3%	5.3		-	-	-	-
R	0.2%	5.5	10%	2,115.85	384.70	327.71	1,802.41
S	0.2%	6.5	7%	1,750.39	269.29	269.29	1,750.39
T	0.2%	7	10%	2,692.90	384.70	371.88	2,603.19
U	0.2%	7	5%	1,346.45	192.35	59.27	414.89
V	0.1%	10.4	2%	800.18	76.94	37.31	388.04
W	0.1%	9.3	2%	715.54	76.94	46.51	432.55
A'	0.1%	9.6	2%	738.62	76.94	57.68	553.74
A"	0.1%	11	2%	846.34	76.94	76.94	846.34
A'''	0.1%	11.7	2%	900.20	76.94	54.66	639.58
			Total	23,847.55	Total	3,499.1	21,234.2
			Average	6.2	New Total	3,847	20,826.5
			ADT	3,847	Average		5.4

Commercial Land Use

Zone	Percent Diverted from Existing	Miles to Proj	Percent Trips	VMT	# of Trips	Primary # of Trips	Primary VMT
A	0.1%	9.5		-	-	-	-
B	0.2%	8.3		-	-	-	-
C	0.3%	5	10%	1,348.50	269.70	269.70	1,348.50
D	0.4%	3	10%	809.10	269.70	219.49	658.46
E	1.0%	1.4	5%	188.79	134.85	84.68	118.55
F	2.2%	0.6	5%	80.91	134.85	134.85	80.91
G	0.6%	2.4	10%	647.28	269.70	250.86	602.07
H	1.3%	1	5%	134.85	134.85	134.85	134.85
I	0.5%	2.5	10%	674.25	269.70	204.81	512.01
J	0.4%	3	5%	404.55	134.85	108.42	325.27
K	0.3%	4.6		-	-	-	-
L	0.2%	7.8		-	-	-	-
M	1.3%	1	10%	269.70	269.70	269.70	269.70
N	0.7%	2	5%	269.70	134.85	111.35	222.69
O	0.4%	3.1	5%	418.04	134.85	77.22	239.38
P	0.4%	3.3	10%	890.01	269.70	168.38	555.67
Q	0.3%	5.3	5%	714.71	134.85	99.54	527.56
R	0.2%	5.5	5%	741.68	134.85	16.76	92.17
S	0.2%	6.5		-	-	-	-
T	0.2%	7		-	-	-	-
U	0.2%	7		-	-	-	-
			Total	7,592.06	Total	2,150.6	5,687.8
			Average	2.8	New Total	2,697	5,419.8
			ADT	2,697	Average		2.0

Office Land Use

Zone	Percent Diverted from Existing	Miles to Proj	Percent Trips	VMT	# of Trips	Primary # of Trips	Primary VMT
A	0.1%	9.5	5%	723.43	76.15	71.70	681.13
B	0.2%	8.3	5%	632.05	76.15	76.15	632.05
C	0.3%	5	15%	1,142.25	228.45	228.45	1,142.25
D	0.4%	3	5%	228.45	76.15	72.35	217.06
E	1.0%	1.4	2%	42.64	30.46	30.11	42.16
F	2.2%	0.6	2%	18.28	30.46	30.46	18.28
G	0.6%	2.4	2%	73.10	30.46	30.46	73.10
H	1.3%	1	2%	30.46	30.46	30.46	30.46
I	0.5%	2.5	3%	114.23	45.69	45.69	114.23
J	0.4%	3		-	-	-	-
K	0.3%	4.6	3%	210.17	45.69	45.69	210.17
L	0.2%	7.8	2%	237.59	30.46	30.46	237.59
M	1.3%	1	4%	60.92	60.92	19.24	19.24
N	0.7%	2	5%	152.30	76.15	76.15	152.30
O	0.4%	3.1	5%	236.07	76.15	75.79	234.95
P	0.4%	3.3	8%	402.07	121.84	45.65	150.65
Q	0.3%	5.3	2%	161.44	30.46	30.46	161.44
R	0.2%	5.5	10%	837.65	152.30	132.27	727.51
S	0.2%	6.5	5%	494.98	76.15	70.59	458.81
T	0.2%	7	5%	533.05	76.15	76.15	533.05
U	0.2%	7	5%	533.05	76.15	66.22	463.57
V	0.1%	10.4	0%	-	-	-	-
W	0.1%	9.3	0%	-	-	-	-
A'	0.1%	9.6	5%	731.04	76.15	76.15	731.04
			Total	6,864.16	Total	1,360.7	7,031.0
			Average	4.5	New Total	1,523	6,996.1
			ADT	1,523	Average		4.6