

**APPENDIX C**

**REVISED AIR QUALITY  
IMPACT ANALYSIS**

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**REVISED AIR QUALITY IMPACT  
ANALYSIS**

**MELROSE TRIANGLE PROJECT**

**LSA**

November 2013

# REVISED AIR QUALITY IMPACT ANALYSIS

## MELROSE TRIANGLE PROJECT

Submitted to:

City of West Hollywood  
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West Hollywood, California 90069

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LSA

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## 1.0 EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) was retained by the City of West Hollywood (City) to prepare an air quality study for the proposed Melrose Triangle, a mixed-use project located on a 3.05-acre (ac) area bordered by Santa Monica Boulevard, Melrose Avenue, and Almont Drive, adjacent to the City of Beverly Hills.

This air quality analysis provides a discussion of the proposed project, the physical setting of the project area, and the regulatory framework for air quality. The analysis provides data on existing air quality, evaluates potential air quality impacts associated with the proposed project, and identifies mitigation measures. Modeled air quality levels are based on vehicle data and project trip generation generated for this project.

The project would involve demolition of the existing structures at the site and construction of three buildings, ranging in height up to five stories above ground and four subterranean levels. Components of the project include retail/commercial, residential, office, and parking uses.

Criteria pollutant emissions during project construction, calculated with California Emission Estimator Model (CalEEMod), would not exceed the South Coast Air Quality Management District (SCAQMD) emission thresholds for any criteria pollutants except for reactive organic compounds (ROC) and oxides of nitrogen (NO<sub>x</sub>). Compliance with SCAQMD Rules and Regulations during construction will minimize construction-related air quality impacts from fugitive dust emissions and construction equipment emissions. A screening Health Risk Assessment (HRA) of construction emissions shows no impact to nearby residents. Mitigation Measures AQ-1 and AQ-2 would reduce the short-term construction impacts to below a level of significance. The proposed project would not exceed any of the localized significance thresholds (LSTs) during construction periods.

Long-term operational emissions associated with the proposed project, also calculated with CalEEMod, and carbon monoxide (CO) concentrations calculated with CALINE4, would be less than the SCAQMD daily thresholds and the California State 1-hour and 8-hour CO concentration standards and would be less than significant. LST would not be exceeded by long-term emissions from the operation of the project. A screening HRA of operational emissions shows no project-related impact to nearby residents. No mitigation measures would be required.

The project site is planned for development in the adopted City of West Hollywood General Plan. The proposed mixed use commercial and residential project is consistent with the current site's General Plan designation. Therefore, the emissions associated with occupation and use of the project are not expected to exceed the General Plan projections or contribute to air quality deterioration beyond current SCAQMD projections, and the proposed project will be consistent with the General Plans and the regional Air Quality Management Plan (AQMP).

The potential of the project to affect global climate change (GCC) is also included in this analysis. Short-term construction and long-term operational emissions of the principal greenhouse gases

(GHGs), including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) are quantified, and significance relative to Assembly Bill (AB) 32 and the City's Climate Action Plan is discussed. The proposed project will not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

The evaluation was prepared in conformance with appropriate standards, utilizing procedures and methodologies in the SCAQMD California Environmental Quality Act (CEQA) Air Quality Handbook (SCAQMD 1993). Air quality data posted on the California Air Resources Board (ARB) and United States Environmental Protection Agency (EPA) websites are included to document the local air quality environment.



## **2.0 PROJECT DESCRIPTION**

### **2.1 OVERVIEW OF THE PROJECT SITE**

The project site, at the west boundary of the City of West Hollywood (City), consists of 10 contiguous parcels totaling approximately 3.05 gross acres (ac). The site is bounded by Santa Monica Boulevard to the north, Almont Drive to the east, Melrose Avenue to the south, and Doheny Drive to the west, as shown on Figure 1. Doheny Drive serves as the boundary between the incorporated cities of West Hollywood and Beverly Hills. The existing addresses for the project site are 9040, 9060, 9080, and 9098 Santa Monica Boulevard; 603, 607, 617, 623, 629, and 633 Almont Drive; and 9001 and 9021 Melrose Avenue.

The project site is within a developed urban area of the City of West Hollywood and is primarily surrounded by primarily commercial uses. The project site is generally flat, although the street level elevation bordering the site drops approximately 13 feet (ft) from west to east and north to south.

The existing uses on site consist of commercial, office, and light industrial buildings; paved parking lots; and a parking structure. The existing buildings are unconsolidated individual structures that lack visual continuity, and the site contains a limited amount of ornamental vegetation..

### **2.2 EXISTING ON-SITE AND ADJACENT LAND USES**

The existing uses on site consist of office, retail (e.g., art galleries and a furniture showroom), service commercial (e.g., hair salons and clothing alterations), light industrial (e.g., upholstery), and parking. The site is developed with two office buildings along Santa Monica Boulevard that are two and three stories high. There is a one-story building on the corner of Santa Monica Boulevard and Almont Drive; a two-story building sits between the largest office building and the one-story building abutting Santa Monica Boulevard; however, the building address and entry are on Almont Drive. There are three single-story buildings (an upholstery shop, a furniture showroom, and an antique shop) along Almont Drive. There are two buildings along Melrose Avenue: a single-story building housing primarily art galleries and a three-story office building.

Existing parking areas on site include various small storefront parking lots, two larger surface parking lots (in the west and central parts of the site), rooftop parking above the art gallery building, and a three-level parking structure in the eastern part of the site. Vehicular access to the site includes a driveway from Santa Monica Boulevard to the central parking lot, driveways from Almont Drive to the parking structure and the rooftop parking area, driveways from Melrose Avenue to the western and central parking lots, and access to various small parking lots along Almont Drive and at the corner of Almont Drive/Santa Monica Boulevard.

Existing land uses in the immediate vicinity of the project site are primarily commercial and retail. To the north, there are a variety of commercial uses (e.g., art gallery, karate school, night club,

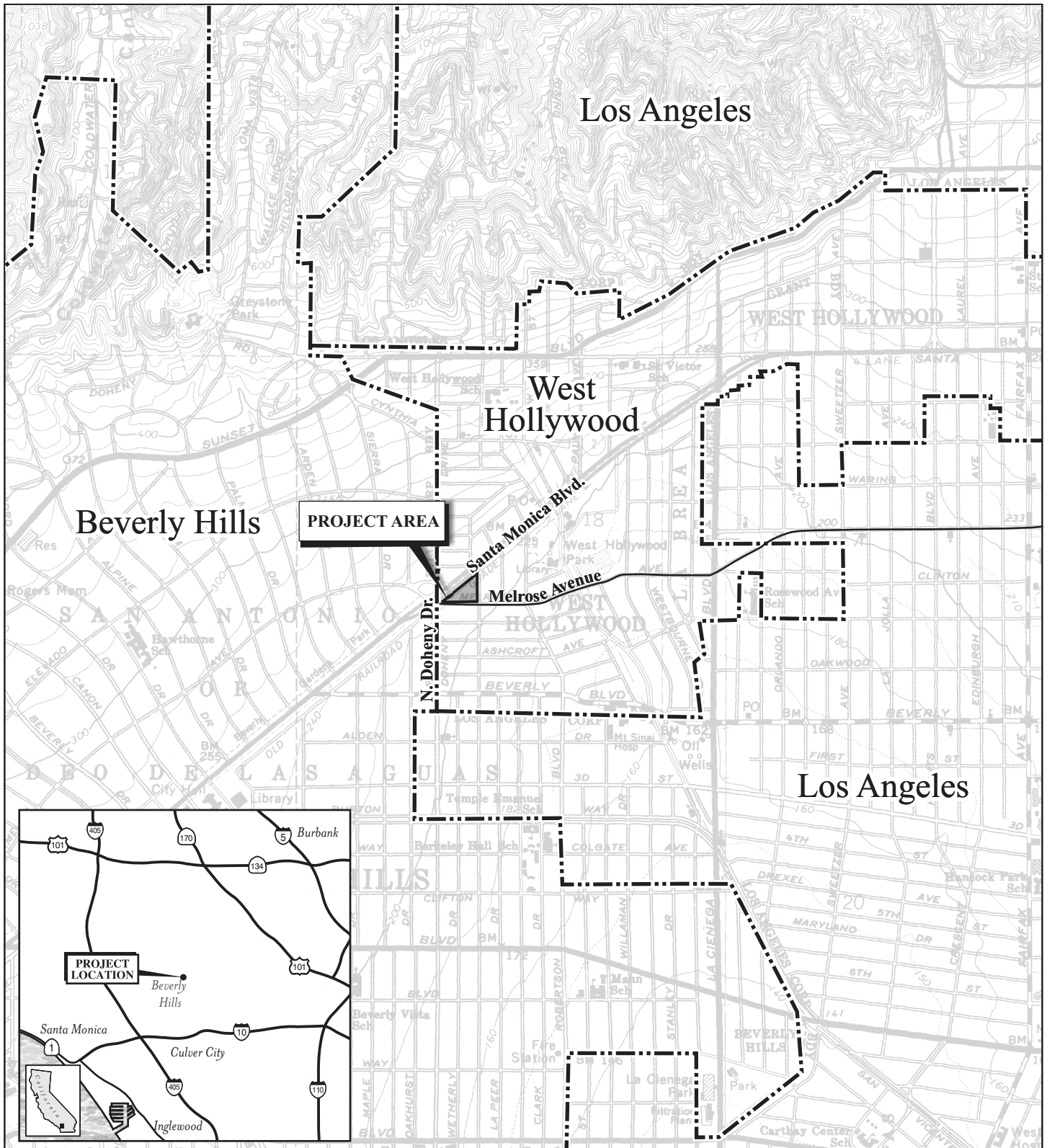
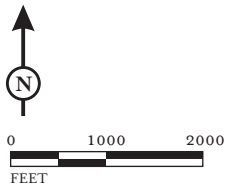


FIGURE 1

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----- - City Boundaries



SOURCE: USGS 7.5' Quads - Beverly Hills & Hollywood, Ca.

Melrose Triangle  
Project Location

restaurant, and office). To the east along Almont Drive, there are primarily furniture and design showrooms, but there is also a large dog-training/kennel business. There are retail/service (e.g., fine art and pet supplies) and office uses south of the site along Melrose Avenue. There is a hotel to the southwest, across the large multiple street intersection of Santa Monica Boulevard/Melrose Avenue/Doheny Drive. To the northwest is Beverly Gardens Park, a small neighborhood open space in the City of Beverly Hills. Extending beyond these uses are multifamily and single-family residential uses to the south on Rangely Avenue, which are separated from the project site by the commercial uses on the south side of Melrose Avenue. There is multifamily housing southwest of the hotel at the intersection of Santa Monica Boulevard/Melrose Avenue/Doheny Drive. North and west of Beverly Gardens Park is a large neighborhood of single-family homes, with two multifamily residential buildings facing nearby Doheny Drive. An aerial photograph showing the location of the project site and the surrounding land uses is provided in Figure 2.

### 2.3 OVERVIEW OF PROPOSED PROJECT

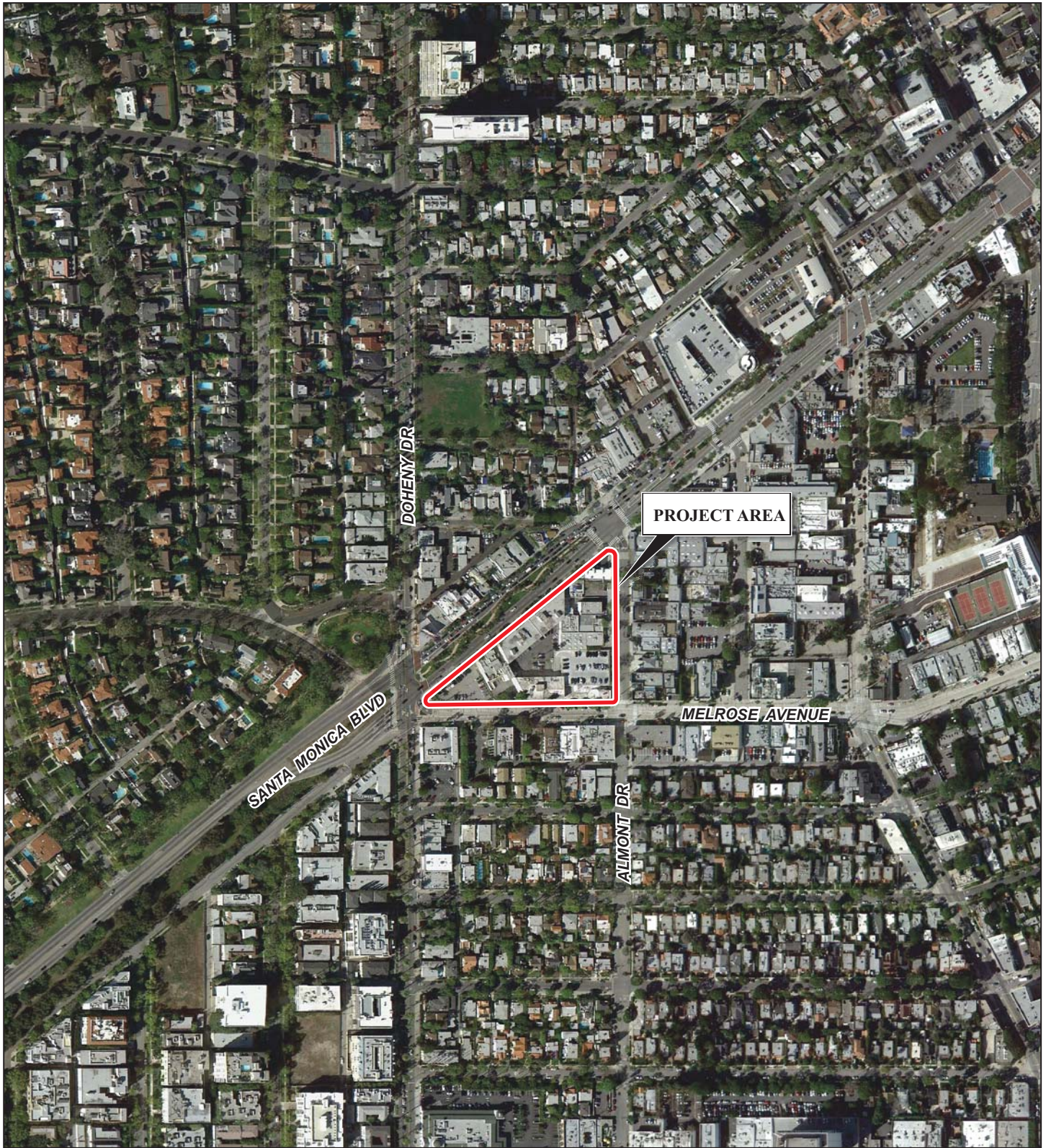
The Melrose Triangle project proposes to demolish the existing buildings and structures on site and to construct a mixed-use commercial and residential development. As shown in Figure 3, the development would consist of three primary structures, referred to as Buildings A (the Gateway Building), B1 (the Boulevard Building), and B2 (the Avenue Building). Building A is a single structure on the southwest corner of the project site. Buildings B1 and B2 are a series of buildings around a central landscaped courtyard. Portions of all three buildings surround a broad paseo that runs through the center of the project site, which would allow pedestrian access between Santa Monica Boulevard and Melrose Avenue.

The building heights of the various components that compose the proposed development range up to five stories above ground, with four subterranean levels. Because of the 13 ft elevation change across the project site, the project level that is accessible from the street along the eastern segments of Melrose Avenue and Almont Avenue is below grade on the northern and western parts of the project site.

The building elements facing Melrose Avenue and Santa Monica Boulevard west of the paseo are lower in height and have fewer stories than those along Santa Monica Boulevard east of the paseo. Figure 4 provides a conceptual oblique aerial view of the proposed project, looking northeast across the site. Figures 5a to 5c provide elevations for the proposed Melrose Triangle project, from Santa Monica Boulevard, Melrose Avenue, and Almont Drive, respectively. The maximum height of the project is approximately 70 ft (as measured from adjacent grade), and the floor area ratio (FAR) is 2.59.

The net development area (consisting of the floor area included within the FAR calculation) above ground is 302,944 square feet (sf). Table A summarizes the square footage of the proposed land uses.





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SOURCE: Google Earth, March 2011

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FIGURE 2

Melrose Triangle  
Aerial Photograph





**The Boulevard Building (Building B1)**

**The Avenue Buildings (Building B2)**

**The Gateway Building (Building A)**

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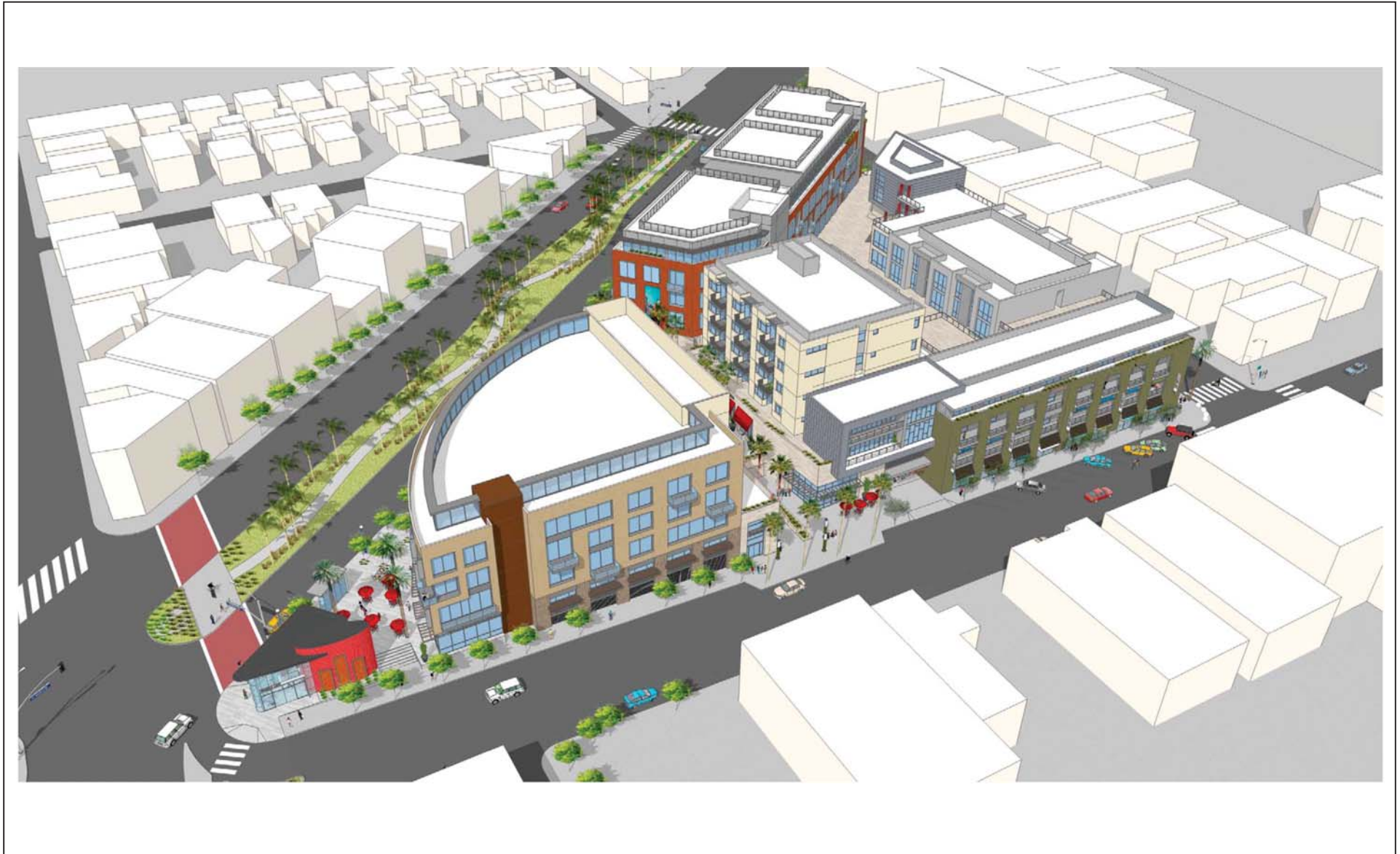
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SOURCE: studionelevan at Perkowitz+Ruth Architects

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FIGURE 3

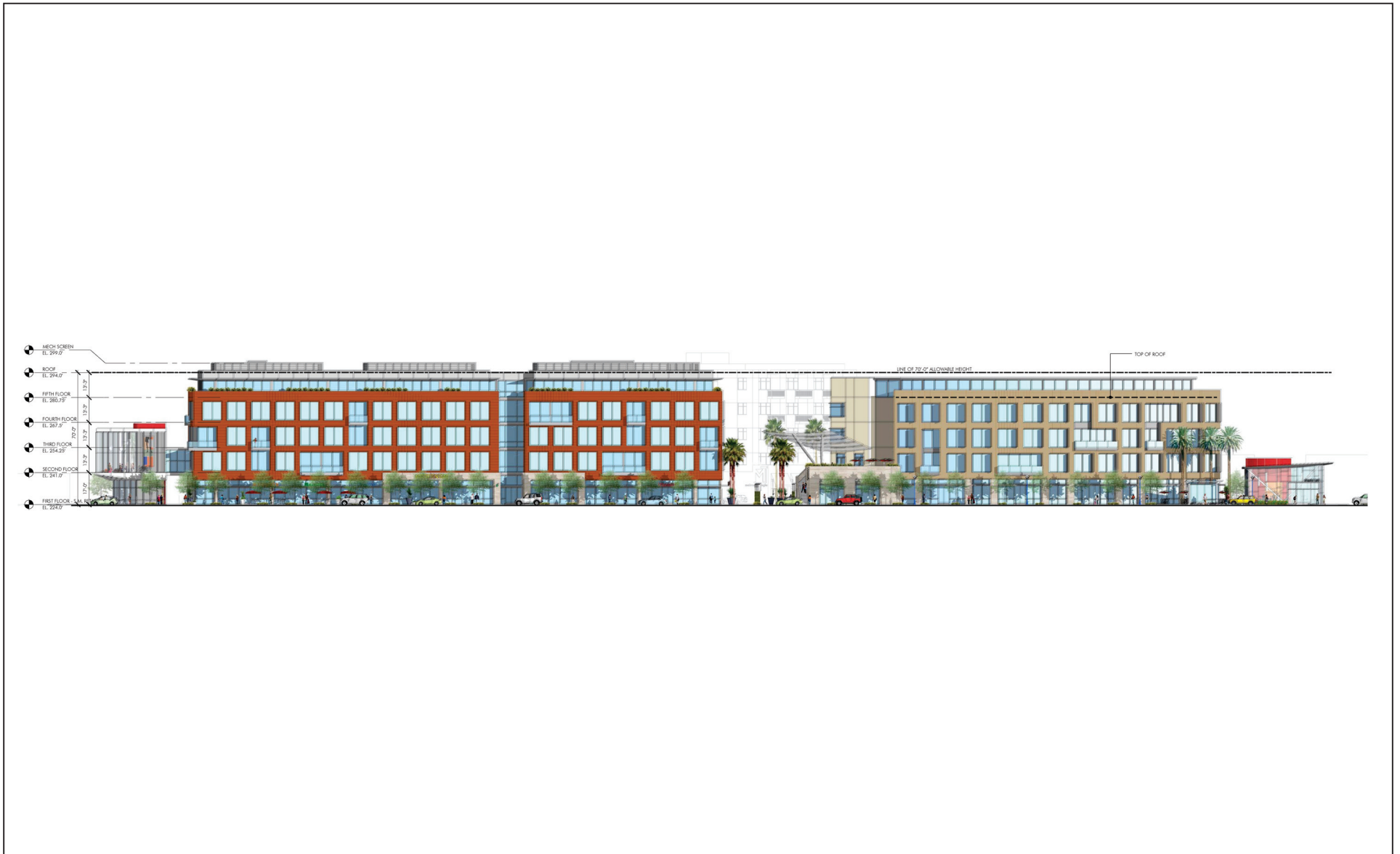
*Melrose Triangle*  
Conceptual Site Plan



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FIGURE 4

*Melrose Triangle*  
Aerial Perspective Vignette



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FIGURE 5a

*Melrose Triangle*  
Elevation - Santa Monica Boulevard

SOURCE: studionelevan at Perkowitz+Ruth Architects

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FIGURE 5b

*Melrose Triangle*  
Elevation - Melrose Avenue

SOURCE: studionelevan at Perkowitz+Ruth Architects

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FIGURE 5c

*Melrose Triangle*  
Elevation - Almont Avenue

SOURCE: studionelevan at Perkowitz+Ruth Architects

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**Table A: Project Square Footage**

Level	Proposed Uses				Total
	Retail/ Restaurant	Office	Residential	Shared <sup>1</sup>	
Melrose Level/B1	23,766	1,178	775 <sup>2</sup>	4,271	<b>29,990</b>
Santa Monica/ First Floor	58,255	2,761	1,450 <sup>2</sup>	1,835	<b>64,301</b>
Second Floor		38,994	31,209		<b>70,203</b>
Third Floor		38,164	29,043		<b>67,207</b>
Fourth Floor		36,913	8,795		<b>45,708</b>
Fifth Floor		19,054	6,481		<b>25,535</b>
<b>Subtotal</b>	<b>82,021</b>	<b>137,064</b>	<b>77,753</b>	<b>6,106</b>	<b>302,944</b>

Source: Studio Oneleven. Melrose Triangle Project Summary.

<sup>1</sup> Shared area comprises common access space and mechanical areas.

<sup>2</sup> Consists of Lobby, Stairwell, and elevator areas for residential uses.

### 2.3.1 Proposed Retail/Restaurant Uses

Approximately 82,021 gross square feet of the proposed Melrose Triangle project are designated for retail and restaurant uses. Of these retail and restaurant uses, approximately 56 percent (45,112 sf) would be designated for general retail, 20 percent (16,404 sf) for art galleries, 15 percent (12,303 sf) for design showrooms, and 10 percent (8,202 sf) for a cafe/restaurant.

The retail and restaurant uses would be at street level along Santa Monica Boulevard and Melrose Avenue. Because the project site drops 13 ft in elevation from west to east and north to south, the street level along Santa Monica Boulevard is designated as the first floor, and the street level along Melrose Avenue and Almont Drive is referred to as the B1 level. Other uses on the ground floor consist of lobbies serving the residential units in Buildings A, B1, and B2, and lobby and mechanical areas serving the office uses.

### 2.3.2 Proposed Office Uses

The proposed project would include a total of 137,064 square feet of office uses in Buildings A (The Gateway Building) and B1 (The Boulevard Building). A portion of the total square footage would include office-related lobby, stairwell, and elevator access areas on the lower street-level floors. Building A would have 52,550 square feet of office uses located on Floors 2 through 4, while Building B1 would have 80,122 square feet of office uses located on Floors 2 through 5.

### 2.3.3 Proposed Residential Uses

The floors above the street-level commercial uses are proposed for apartments. All of the residential units would be in Building B2, adjacent to Melrose Avenue and Almont Avenue. The majority of the residential units would also include balconies. A total of 20 percent of the residential units (approximately 15 units) would be made available to low- and moderate-income households, as

required by the City of West Hollywood Municipal Code Section 19.22.030. Table B summarizes the proposed residential units in the Melrose Triangle project.

### 2.3.4 Proposed Recreation Uses

The proposed Melrose Triangle project includes 6,985 sf of private open space and 9,463 sf of common open space for use by residents.

**Table B: Summary of Residential Units**

Level	Studio Lofts	One-Bedroom	Two-Bedroom	Total
Second Floor	27	4	3	34
Third Floor	24	2	2	28
Fourth Floor	4	2	1	7
Fifth Floor	4	2	1	7
<b>Total</b>	<b>59</b>	<b>10</b>	<b>7</b>	<b>76</b>
<b>Percent of Total</b>	<b>78%</b>	<b>13%</b>	<b>9%</b>	<b>100%</b>

Source: Studio Oneleven. Melrose Triangle Project Summary Sheet.

### 2.3.5 Vehicular Access and Parking

Vehicular access to the Melrose Triangle project would be provided via three driveways. One driveway would be located on Santa Monica Boulevard adjacent to the paseo, the second on Melrose Avenue east of the paseo, and the third on Almont Drive.

Parking for the Melrose Triangle project will provide 884 spaces in the subterranean parking levels B1, B2, B3, and B4. As calculated according to the square footage of the proposed land uses, the number of spaces provided exceeds the parking requirement of the City's Municipal Code by 37 spaces.

## 3.0 SETTING

### 3.1 EXISTING ENVIRONMENTAL SETTING

The project site is located within the City of West Hollywood (City), which is part of the South Coast Air Basin (SCAB) and is under the jurisdiction of the SCAQMD. The air quality assessment for the proposed project includes estimating emissions associated with short-term construction and long-term operation of the proposed project.

A number of air quality modeling tools are available to assess air quality impacts of projects. In addition, certain air districts, such as the SCAQMD, have created guidelines and requirements to conduct air quality analyses. The SCAQMD's current guidelines, the 1993 CEQA Air Quality Handbook, were adhered to in the assessment of air quality impacts for the proposed project.

#### 3.1.1 Regional Air Quality

Both the State of California and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As shown in Table C, these pollutants include ozone (O<sub>3</sub>), CO, nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter with a diameter of 10 microns or less (PM<sub>10</sub>), fine particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to setting out primary and secondary AAQS, the State of California has established a set of episode criteria for O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM<sub>10</sub>. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three. An alert level is that concentration of pollutants at which in the initial stage, the control actions are to begin. An alert will be declared when any one of the pollutant alert levels is reached at any monitoring site and meteorological conditions are such that the pollutant concentrations can be expected to remain at these levels for 12 or more hours or to increase, or as in the case of oxidants, the situation is likely to recur within the next 24 hours unless control actions are taken.

Pollutant alert levels:

- O<sub>3</sub>: 392 micrograms per cubic meter (µg/m<sup>3</sup>) (0.20 parts per million [ppm]), 1-hour average
- CO: 17 milligrams per cubic meter (mg/m<sup>3</sup>) (15 ppm), 8-hour average
- NO<sub>2</sub>: 1,130 µg/m<sup>3</sup> (0.6 ppm) 1-hour average; 282 µg/m<sup>3</sup> (0.15 ppm) 24-hour average

**Table C: Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>			
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>	
Ozone (O <sub>3</sub> )	1-Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry	
	8-Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )			
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>8</sup>	24-Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		--			
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>8</sup>	24-Hour	No Separate State Standard		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>			15 µg/m <sup>3</sup>
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	None	Non-Dispersive Infrared Photometry (NDIR)	
	1-Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm(40 mg/m <sup>3</sup> )			
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—			—
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>9</sup>	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	Gas Phase Chemiluminescence	
	1-Hour	0.18 ppm (339 µg/m <sup>3</sup> )		100 ppb (188 µg/m <sup>3</sup> )			—
Sulfur Dioxide (SO <sub>2</sub> ) <sup>10</sup>	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) <sup>9</sup>	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	24-Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>9</sup>			
	3-Hour	—		—			0.5 ppm (1300 µg/m <sup>3</sup> )
	1-Hour	0.25 ppm (655 µg/m <sup>3</sup> )		75 ppb (196 µg/m <sup>3</sup> )			—
Lead <sup>11,12</sup>	30-Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	Same as Primary Standard	High-Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m <sup>3</sup>			
	Rolling 3- Month Average <sup>11</sup>	—		0.15 µg/m <sup>3</sup>			
Visibility- Reducing Particles <sup>13</sup>	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	<b>No Federal Standards</b>			
Sulfates	24-Hour	25 µg/m <sup>3</sup>	Ion Chromatography				
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence				
Vinyl Chloride <sup>11</sup>	24-Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography				

Source: California Air Resources Board (June 4, 2013).

Footnotes:

<sup>1</sup> California standards for O<sub>3</sub>; CO (except Lake Tahoe); SO<sub>2</sub> (1- and 24-hour); NO<sub>2</sub>; suspended particulate matter - PM<sub>10</sub>, PM<sub>2.5</sub> and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>2</sup> National standards (other than O<sub>3</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O<sub>3</sub> standard is attained when the fourth-highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is

attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than 1. For  $\text{PM}_{2.5}$ , the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current Federal policies.

- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On December 14, 2012, the national annual  $\text{PM}_{2.5}$  primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour  $\text{PM}_{2.5}$  standards (primary and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour  $\text{PM}_{10}$  standards (primary and secondary) of  $150 \mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 9 To attain the 1-hour standard, the 3-year average of the annual 98<sup>th</sup> percentile of the 1-hour daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 10 On June 2, 2010, the new 1-hour  $\text{SO}_2$  standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 11 The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 12 The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.
- 13 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basins, respectively.

$^\circ\text{C}$  = degrees Celsius

ARB = California Air Resources Board

EPA = United States Environmental Protection Agency

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter

$\text{mg}/\text{m}^3$  = milligrams per cubic meter

ppm = parts per million

ppb = parts per billion

- SO<sub>2</sub>: 800 µg/m<sup>3</sup> (0.3 ppm), 24-hour average
- Particulates, measured as PM<sub>10</sub>: 350 µg/m<sup>3</sup>, 24-hour average

Table D lists the primary health effects and sources of common air pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than federal AAQS. Among the pollutants, O<sub>3</sub> and particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) are considered regional pollutants, while the others have more localized effects.

**Table D: Summary of Health Effects of the Major Criteria Air Pollutants**

Pollutant	Health Effects	Examples of Sources
Particulate matter (PM <sub>10</sub> : less than or equal to 10 microns)	<ul style="list-style-type: none"> <li>• Increased respiratory disease</li> <li>• Lung damage</li> <li>• Premature death</li> </ul>	<ul style="list-style-type: none"> <li>• Cars and trucks, especially diesels</li> <li>• Fireplaces, wood stoves</li> <li>• Windblown dust from roadways, agriculture, and construction</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Breathing difficulties</li> <li>• Lung damage</li> </ul>	<ul style="list-style-type: none"> <li>• Formed by chemical reactions of air pollutants in the presence of sunlight; common sources are motor vehicles, industries, and consumer products</li> </ul>
Carbon monoxide (CO)	<ul style="list-style-type: none"> <li>• Chest pain in heart patients</li> <li>• Headaches, nausea</li> <li>• Reduced mental alertness</li> <li>• Death at very high levels</li> </ul>	<ul style="list-style-type: none"> <li>• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves</li> </ul>
Nitrogen dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Lung damage</li> </ul>	<ul style="list-style-type: none"> <li>• See carbon monoxide sources</li> </ul>
Toxic air contaminants	<ul style="list-style-type: none"> <li>• Cancer</li> <li>• Chronic eye, lung, or skin irritation</li> <li>• Neurological and reproductive disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Cars and trucks, especially diesels</li> <li>• Industrial sources such as chrome platers</li> <li>• Neighborhood businesses such as dry cleaners and service stations</li> <li>• Building materials and products</li> </ul>

Source: California Air Resources Board (2010).

The California Clean Air Act (CCAA) provides SCAQMD and other air districts with the authority to manage transportation activities at indirect sources. Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. Examples of this would be the motor vehicles at an intersection, a mall, and on highways. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the ARB.

**Climate/Meteorology.** Air quality in the planning area is not only affected by various emission sources (mobile, industry, etc.) but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, etc. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States give the SCAB the worst air pollution problem in the nation.

Climate in the SCAB is determined by its terrain and geographical location. The SCAB is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern border, and high mountains surround the rest of the SCAB. The SCAB lies in the semi-permanent high-

pressure zone of the eastern Pacific; the resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted. However, periods of extremely hot weather, winter storms, or Santa Ana wind conditions do occur.

The annual average temperature varies little throughout the SCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Culver City Station.<sup>1</sup> The monthly average maximum temperature recorded at this station from January 1935 to January 2012 ranged from 66.5°F in January to 79.0°F in August, with an annual average maximum of 72.3°F. The monthly average minimum temperature recorded at this station ranged from 45.3°F in January to 61.9°F in August, with an annual average minimum of 53.3°F. January is typically the coldest month, and August is typically the warmest month in this area of the SCAB.

The majority of annual rainfall in the SCAB occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunder showers in coastal regions and slightly heavier showers in the eastern portion of the SCAB and along the coastal side of the mountains. The Culver City climatological station monitored precipitation from January 1935 to January 2012. Average monthly rainfall measured in Culver City during that period varied from 3.00 inches in February to 0.42 inch or less between May and October, with an annual total of 13.21 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Winds in the Culver City/West Hollywood area are almost always driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction, traveling toward the sea. Wind direction is altered by local canyons, with wind tending to flow parallel to the canyons. During the transition period from one wind pattern to another, the dominant wind direction rotates into the south and causes a minor wind direction maximum from the south. The frequency of calm winds (i.e., less than 2 miles per hour [mph]) is less than 10 percent. Therefore, there is little stagnation in the vicinity of the project, especially during busy daytime traffic hours.

The SCAB experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in midafternoon to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is accumulation of CO and NO<sub>x</sub> due to extremely low

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<sup>1</sup> Western Regional Climate Center, [www.wrcc.dri.edu](http://www.wrcc.dri.edu).



inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO<sub>x</sub> to form photochemical smog.

**Description of Global Climate Change and its Sources.** GCC is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures.

Climate change refers to any change in measures of weather (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from natural factors, such as changes in the sun's intensity; natural processes within the climate system, such as changes in ocean circulation; or human activities, such as the burning of fossil fuels, land clearing, or agriculture. The primary observed effect of GCC has been a rise in the average global tropospheric<sup>1</sup> temperature of 0.36°F per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones. Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Global surface temperatures have risen by 1.33°F ± 0.32°F over the last 100 years (1906 to 2005). The rate of warming over the last 50 years is almost double that over the last 100 years.<sup>2</sup> The latest projections, based on state-of-the-art climate models, indicate that temperatures in California are expected to rise 3 to 10.5°F by the end of the century.<sup>3</sup> The prevailing scientific opinion on climate change is that "most of the warming observed over the last 50 years is attributable to human activities."<sup>4</sup> Increased amounts of CO<sub>2</sub> and other GHGs are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the greenhouse effect.<sup>5</sup>

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<sup>1</sup> The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

<sup>2</sup> Intergovernmental Panel on Climate Change (IPCC), 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

<sup>3</sup> California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

<sup>4</sup> IPCC, *Climate Change 2007: The Physical Science Basis*, <http://www.ipcc.ch>.

<sup>5</sup> The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC are:<sup>1</sup>

- CO<sub>2</sub>
- CH<sub>4</sub>
- N<sub>2</sub>O
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF<sub>6</sub>)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While GHGs produced by human activities include naturally occurring GHGs such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, some gases, like HFCs, PFCs, and SF<sub>6</sub> are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere as compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this report, the term “GHGs” will refer collectively to the six gases identified in the bulleted list provided above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO<sub>2</sub>, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO<sub>2</sub> over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO<sub>2</sub> equivalents” (CO<sub>2</sub>e). Table E shows the GWPs for each type of GHG. For example, SF<sub>6</sub> is 22,800 times more potent at contributing to global warming than CO<sub>2</sub>.

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<sup>1</sup> The greenhouse gases (GHGs) listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), as discussed later in this section.

**Table E: Global Warming Potential of Greenhouse Gases**

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO <sub>2</sub> )	50–200	1
Methane (CH <sub>4</sub> )	12 ±3	21
Nitrous Oxide (N <sub>2</sub> O)	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000	6,500
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10,000	9,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	23,900

Source: EPA, 2008.

HFC = Hydrofluorocarbons

PFC = Perfluorocarbons

The following discussion summarizes the characteristics of seven of the primary GHGs.

**Carbon Dioxide.** In the atmosphere, carbon generally exists in its oxidized form, as CO<sub>2</sub>. Natural sources of CO<sub>2</sub> include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter, and evaporation from the oceans. Human-caused sources of CO<sub>2</sub> include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO<sub>2</sub> are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO<sub>2</sub> to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of human-made CO<sub>2</sub>, and consequently the gas is building up in the atmosphere. The concentration of CO<sub>2</sub> in the atmosphere has risen approximately 30 percent since the late 1800s.<sup>1</sup>

In 2002, CO<sub>2</sub> emissions from fossil fuel combustion accounted for approximately 98 percent of human-made CO<sub>2</sub> emissions and approximately 84 percent of California's overall GHG emissions (CO<sub>2</sub>e). The transportation sector accounted for California's largest portion of CO<sub>2</sub> emissions, with gasoline consumption making up the greatest portion of these emissions. Electricity generation was California's second-largest category of GHG emissions.

**Methane.** CH<sub>4</sub> is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil, and natural gas, etc.). Decomposition occurring in landfills accounts for the

<sup>1</sup> California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

majority of human-generated CH<sub>4</sub> emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).<sup>1</sup> Agricultural processes such as manure management and rice cultivation are also significant sources of human-made CH<sub>4</sub> in California. CH<sub>4</sub> accounted for approximately 7 percent of gross climate change emissions (CO<sub>2</sub>e) in California in 2009.<sup>2</sup> It is estimated that over 60 percent of global methane emissions are related to human-related activities.<sup>3</sup> As with CO<sub>2</sub>, the major removal process of atmospheric CH<sub>4</sub>—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH<sub>4</sub> concentrations in the atmosphere are increasing.

**Nitrous Oxide.** N<sub>2</sub>O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N<sub>2</sub>O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emits N<sub>2</sub>O, and the quantity emitted varies according to the types of fuel, technology, and pollution control devices used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N<sub>2</sub>O emissions in California. N<sub>2</sub>O emissions accounted for nearly 7 percent of human-made GHG emissions (CO<sub>2</sub>e) in California in 2002.

**Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride.** HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.<sup>4</sup> PFCs and SF<sub>6</sub> are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs. HFCs, PFCs, and SF<sub>6</sub> accounted for about 3.5 percent of human-made GHG emissions (CO<sub>2</sub>e) in California in 2002.<sup>5</sup>

**Halons.** These compounds are used in fire extinguishers and behave as both O<sub>3</sub>-depleting and GHGs. 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.

**GHG Emissions Sources and Inventories.** An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for

<sup>1</sup> ARB, GHG Inventory Data - 2000 to 2009. <http://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed August 2012.

<sup>2</sup> Ibid.

<sup>3</sup> IPCC, 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

<sup>4</sup> The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

<sup>5</sup> CalEPA. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

addressing climate change. This section summarizes the latest information on global, national, California, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere (see Table E), accumulate over time, and are generally well-mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

**Global Emissions.** Worldwide emissions of GHGs in 2011 totaled 25 billion MT of CO<sub>2</sub>e per year (CO<sub>2</sub>e/yr).<sup>1</sup> Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change (UNFCCC).

**United States Emissions.** In 2011, the United States emitted approximately 6.7 billion MT of CO<sub>2</sub>e. Total U.S. emissions have increased by 8.4 percent from 1990 to 2011, and emissions decreased from 2010 to 2011 by 1.6 percent (108.0 Tg CO<sub>2</sub>e). The decrease from 2010 to 2011 was due to a decrease in the carbon intensity of fuels consumed to generate electricity due to a decrease in coal consumption, with increased natural gas consumption and a significant increase in hydropower used. Additionally, relatively mild winter conditions, especially in the South Atlantic Region of the United States where electricity is an important heating fuel, resulted in an overall decrease in electricity demand in most sectors. Since 1990, U.S. emissions have increased at an average annual rate of 0.4 percent.<sup>2</sup>

**State of California Emissions.** California's gross emissions of GHGs decreased by 6 percent from 478.4 MMTCO<sub>2</sub>e in 2001 to 448.1 million in 2011, with a maximum of 489.2 MMTCO<sub>2</sub>e in 2004. During the same period, California's population grew by 9 percent from 34.5 to 37.6 million people. As a result, California's per capita GHG emissions have decreased over the last 11 years from 13.9 to 11.9 tonnes of CO<sub>2</sub>e per person. In 2011, emissions continued to decrease for the transportation and electric power sectors. Emissions from all other sectors remained relatively flat or increased slightly from 2010.<sup>3</sup>

The ARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2011, followed by electricity generation (both in-State and out-of-State) at 19 percent and industrial sources at 21 percent. The remaining sources of GHG emissions were residential and commercial activities at 10 percent, agriculture at 7 percent, high-GWP gases at 3 percent, and recycling and waste at 2 percent.<sup>4</sup>

<sup>1</sup> Combined total of Annex I and Non-Annex I Country CO<sub>2</sub>e emissions. UNFCCC, 2013. *Greenhouse Gas Inventory Data*. [http://unfccc.int/ghg\\_data/ghg\\_data\\_unfccc/time\\_series\\_annex\\_i/items/3814.php](http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php) and [http://maindb.unfccc.int/library/view\\_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf](http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf).

<sup>2</sup> United States Environmental Protection Agency (EPA). 2013. The U.S. Greenhouse Gas Inventory Report. <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>, accessed October 2013.

<sup>3</sup> California Air Resources Board. 2013. California Greenhouse Gas Emissions for 2000 to 2011 – Trends of Emissions and Other Indicators. [http://www.arb.ca.gov/cc/inventory/data/tables/ghg\\_inventory\\_trends\\_00-11\\_2013-10-02.pdf](http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_trends_00-11_2013-10-02.pdf), accessed October 2013.

<sup>4</sup> California Air Resources Board. 2013. <http://www.arb.ca.gov/cc/inventory/data/data.htm>, accessed October 2013.

The ARB staff has projected statewide unregulated GHG emissions for 2020, which represent the emissions that would be expected to occur in the absence of any GHG reduction actions, at 506.8 MMTCO<sub>2</sub>e. GHG emissions from the transportation and electricity sectors as a whole are expected to be approximately 36 percent and 22 percent of total CO<sub>2</sub>e emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions, and the percentage of the total 2020 emissions is projected to be 18 percent of total CO<sub>2</sub>e emissions. The remaining sources of GHG emissions in 2020 are high-GWP gases at 7 percent, residential and commercial activities at 9 percent, agriculture at 6 percent, and recycling and waste at 2 percent.<sup>1</sup>

**West Hollywood Greenhouse Gas Emissions.** The City of West Hollywood Climate Action Plan (CAP) includes a GHG baseline inventory that identifies sources and levels of GHG emissions produced by residents and businesses within the community and municipal operations. The 2008 inventory addresses the following emission sectors: residential and nonresidential energy use (i.e., commercial and industrial), transportation, solid waste, water use, and wastewater treatment. Government-related GHG emissions, which include energy use in government buildings, vehicle fleets, solid waste, streetlights, and other government-owned/operated facilities, are a subset of the communitywide emissions inventory.

Communitywide GHG emissions were also projected for the years 2020 and 2035 under a business-as-usual scenario. The business-as-usual scenario assumes that historical data and trends are representative of future year consumption rates for energy, water, and waste. A summary of West Hollywood's 2008, 2020, and 2035 business-as-usual emissions is provided in Table F. Assuming that the same type of current emissions-generating practices continue to occur within the City, GHG emissions are anticipated to increase by 11 percent in 2020 over 2008 levels, and by 22 percent in 2035 over 2008 levels.

**Table F: West Hollywood Baseline And Projected GHG Emissions And Percent Contributions**

Emissions Sector	Baseline MT CO <sub>2</sub> e (percent of total emissions)		
	2008	2020	2035
Transportation	361,350 (62%)	412,450 (64%)	456,600 (64%)
Commercial/Industrial Energy Use	116,197 (20%)	116,028 (18%)	127,653 (18%)
Residential Energy Use	70,378 (12%)	77,519 (12%)	84,081 (12%)
Wastewater Treatment	20,981 (4%)	22,768 (4%)	24,974 (4%)
Solid Waste	8,543 (1%)	9,267 (1%)	10,172 (1%)
Water Consumption	5,764 (1%)	8,200 (1%)	8,971 (1%)
<b>Total</b>	<b>583,213 (100%)</b>	<b>646,232 (100%)</b>	<b>712,451 (100%)</b>
Estimated Population	37,348	40,385	44,182
Estimated Employment	22,911	24,934	28,705

<sup>1</sup> California Air Resources Board. 2013. <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>, accessed October 2013.

GHG Emissions per Service Population <sup>a</sup>	9.7	9.9	9.8
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<sup>a</sup> Service Population is the sum of population plus employment.

Source: City of West Hollywood, Climate Action Plan, September 6, 2011.

Transportation emissions are the largest portion of GHG emissions. The magnitude of GHG emissions increases from 2008 to 2020 and 2035 is due primarily to anticipated future population growth (and related consumption) in West Hollywood. Although the trends for each projection show an increase in GHG emissions, emission reductions are anticipated due to programs and regulations applied at the federal and state levels, such as vehicle fuel efficiency standards, low carbon fuel standards, and renewable energy portfolio requirements. These actions at the federal and state levels are not considered in the 2020 and 2035 projections.

Table G summarizes municipal baseline emissions from sectors for which data are available. Emissions from the municipal vehicle fleet, solid waste, and water/wastewater are not reported, as data for these sectors were not available at the time of the analysis.

**Table G: West Hollywood Municipal Emissions**

Emissions Sector	2008 Baseline MT CO <sub>2</sub> e
Buildings and Facilities Electricity Use	670
Buildings and Facilities Natural Gas Use	52
Street Lights	2,211
Traffic Control	69

Source: City of West Hollywood, *Climate Action Plan*, September 6, 2011.

**Air Pollution Constituents and Attainment Status.** The ARB coordinates and oversees both State and federal air pollution control programs in California. The ARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air districts. The ARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by the ARB and EPA to classify air basins as attainment, nonattainment, nonattainment-transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards. Table H lists the attainment status for criteria pollutants in the SCAB.

**Table H: Attainment Status of Criteria Pollutants in the South Coast Air Basin**

	<b>State</b>	<b>Federal</b>
1-hour Ozone	Nonattainment	N/A
8-hour Ozone	Nonattainment	Extreme Nonattainment
PM <sub>10</sub>	Nonattainment	Serious Nonattainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO <sub>2</sub>	Nonattainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment
Lead	Nonattainment (Los Angeles County only)	Nonattainment (Los Angeles County only)
All others	Attainment/Unclassified	Attainment/Unclassified

Source: ARB 2013 (<http://www.arb.ca.gov/desig/desig.htm>).

CO = carbon monoxide

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in diameter

N/A = not available

PM<sub>10</sub> = particulate matter less than 10 microns in diameter

NO<sub>2</sub> = nitrogen dioxide

SO<sub>2</sub> = sulfur dioxide

**Ozone.** O<sub>3</sub> (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases rather than being directly emitted. Ozone is a pungent, colorless gas typical of Southern California smog. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. Ozone levels peak during summer and early fall. The entire SCAB is designated as a nonattainment area for the State 1-hour and 8-hour ozone standards. The EPA has officially designated the status for the SCAB regarding the 8-hour ozone standard as “Extreme,” which means the SCAB has until 2024 to attain the federal 8-hour O<sub>3</sub> standard.

**Carbon Monoxide.** CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless odorless gas that can cause dizziness, fatigue, and impairment to central nervous system functions. The entire SCAB is in attainment for the State standards for CO. The SCAB is designated as an “Attainment/Maintenance” area under the federal CO standards.

**Nitrogen Oxides.** NO<sub>2</sub>, a reddish-brown gas, and nitric oxide (NO), a colorless odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO<sub>x</sub>. NO<sub>x</sub> is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO<sub>2</sub> decreases lung function and may reduce resistance to infection. The entire SCAB is designated as nonattainment for the State NO<sub>2</sub> standard and as an “Attainment/Maintenance” area under the federal NO<sub>2</sub> standard.

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO<sub>2</sub> levels. SO<sub>2</sub> irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire SCAB is in attainment for both federal and State SO<sub>2</sub> standards.



**Lead.** Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The Los Angeles County portion of the SCAB was redesignated as nonattainment for the State and federal standards for lead in 2010.

**Particulate Matter.** Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles,  $PM_{10}$ , derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle ( $PM_{2.5}$ ) levels. Fine particles can also be formed in the atmosphere through chemical reactions.  $PM_{10}$  can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that  $PM_{2.5}$ , which penetrates deeply into the lungs, is more likely than  $PM_{10}$  to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current  $PM_{10}$  standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The entire SCAB is a nonattainment area for both federal and State  $PM_{10}$  and  $PM_{2.5}$  standards.

**Reactive Organic Compounds.** Reactive organic compounds (ROCs; also known as ROGs and volatile organic compounds [VOCs]) are formed from combustion of fuels and evaporation of organic solvents. ROCs are not defined criteria pollutants but are a prime component of the photochemical smog reaction. Consequently, ROCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower.

**Sulfates.** Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to  $SO_2$  during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of  $SO_2$  to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The entire SCAB is in attainment for the State standard for sulfates.

**Hydrogen Sulfide.** Hydrogen sulfide ( $H_2S$ ) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In 1984, an ARB committee concluded that the ambient standard for  $H_2S$  is adequate to protect public health and to significantly reduce odor annoyance. The entire SCAB is unclassified for the State standard for  $H_2S$ .

**Visibility-Reducing Particles.** Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consist of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The statewide standard is intended to limit the frequency and severity of

visibility impairment due to regional haze. The entire SCAB is unclassified for the State standard for visibility-reducing particles.

## 3.2 LOCAL AIR QUALITY

The SCAQMD, together with the ARB, maintains ambient air quality monitoring stations in the SCAB. The air quality monitoring station closest to the project site is the West Los Angeles-1630 North Main Street station, and its air quality trends are representative of the ambient air quality in the project area. The pollutants monitored at this station are CO, O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, and SO<sub>2</sub>.

The ambient air quality data in Table I shows that SO<sub>2</sub> and CO levels stay below the relevant State and federal standards. O<sub>3</sub> and PM<sub>2.5</sub> levels occasionally exceed both State and federal standards, PM<sub>10</sub> levels occasionally exceed State but stay below federal standards, and NO<sub>2</sub> occasionally exceeds the federal standard.

## 3.3 REGULATORY SETTINGS

### 3.3.1 Federal Regulations/Standards

Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health.

Data collected at permanent monitoring stations are used by the EPA to classify regions as “attainment” or “nonattainment,” depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA. The EPA has designated SCAG as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

The EPA established new national air quality standards for ground-level O<sub>3</sub> and fine particulate matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O<sub>3</sub> and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA.

On February 27, 2001, the United States Supreme Court upheld the way the government sets air quality standards under the CAA. The court unanimously rejected industry arguments that the EPA must consider financial cost, as well as health benefits, in writing standards. The justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O<sub>3</sub> and soot in 1997. Nevertheless, the court threw out the EPA’s policy for implementing new O<sub>3</sub> rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

**Table I: Ambient Air Quality Monitored at the Los Angeles – North Main Street Station**

Pollutant	Standard	2010	2011	2012
<b>Carbon Monoxide (CO)</b>				
Maximum 1-hr concentration (ppm)		2.7	2.8	2.2
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hr concentration (ppm)		2.32	2.4	1.91
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0
	Federal: ≥ 9 ppm	0	0	0
<b>Ozone (O<sub>3</sub>)</b>				
Maximum 1-hr concentration (ppm)		0.098	0.087	0.093
Number of days exceeded:	State: > 0.09 ppm	1	0	0
Maximum 8-hr concentration (ppm)		0.08	0.065	0.077
Number of days exceeded:	State: > 0.07 ppm	1	0	2
	Federal: > 0.075 ppm	1	0	1
<b>Coarse Particulates (PM<sub>10</sub>)</b>				
Maximum 24-hr concentration (µg/m <sup>3</sup> )		42	53	80
Number of days exceeded:	State: > 50 µg/m <sup>3</sup>	0	9	43
	Federal: > 150 µg/m <sup>3</sup>	0	0	0
Annual arithmetic average concentration (µg/m <sup>3</sup> )		27.1	29	30.2
Exceeded for the year:	State: > 20 µg/m <sup>3</sup>	Yes	Yes	Yes
<b>Fine Particulates (PM<sub>2.5</sub>)</b>				
Maximum 24-hr concentration (µg/m <sup>3</sup> )		48.6	69.2	58.7
Number of days exceeded:	Federal: > 35 µg/m <sup>3</sup>	5	7	4
Annual arithmetic average concentration (µg/m <sup>3</sup> )		12.6	13.3	12.7
Exceeded for the year:	State: > 12 µg/m <sup>3</sup>	Yes	Yes	Yes
	Federal: > 15 µg/m <sup>3</sup>	No	No	No
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>				
Maximum 1-hr concentration (ppm)		0.089	0.11	0.077
Number of days exceeded:	State: > 0.18 ppm	0	0	0
	Federal: > 0.10 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.025	N/A	N/A
Exceeded for the year:	State: > 0.030 ppm	No	N/A	N/A
	Federal: > 0.053 ppm	No	N/A	N/A
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>				
Maximum 24-hr concentration (ppm)		0.002	N/A	N/A
Number of days exceeded:	State: > 0.04 ppm	0	N/A	N/A
Maximum 1-hr concentration (ppm)		0	N/A	N/A
Number of days exceeded:	State: > 0.25 ppm	0	N/A	N/A
	Federal: > 0.075 ppm	0	N/A	N/A

Sources: EPA and ARB websites: [http://www.epa.gov/airdata/ad\\_maps.html](http://www.epa.gov/airdata/ad_maps.html) and [www.arb.ca.gov/adam/welcome.html](http://www.arb.ca.gov/adam/welcome.html).

µg/m<sup>3</sup> = micrograms per cubic meter

ARB = California Air Resources Board

EPA = United States Environmental Protection Agency

hr = hour

N/A = data not available

ppm = parts per million

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the 8-hour ground-level O<sub>3</sub> standard. The EPA issued the proposed rule implementing the 8-hour O<sub>3</sub> standard in April 2003. The EPA completed final 8-hour nonattainment status on April 15, 2004. The EPA revoked the 1-hour O<sub>3</sub> standard on June 15, 2005, and lowered the 8-hour O<sub>3</sub> standard from 0.08 ppm to 0.075 ppm on April 1, 2008.

The EPA issued the final PM<sub>2.5</sub> implementation rule in fall 2004. The EPA lowered the 24-hour PM<sub>2.5</sub> standard from 65 to 35 µg/m<sup>3</sup> and revoked the annual PM<sub>10</sub> standard on December 17, 2006. The EPA issued final designations for the 2006 24-hour PM<sub>2.5</sub> standard on December 12, 2008. On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO<sub>2</sub> emissions under the CAA. While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 that are required to implement a regulatory approach to GCC.

On September 30, 2009, the EPA announced a proposal that focuses on large facilities emitting over 25,000 tons of GHG emissions per year. These facilities would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions.

On December 7, 2009, the EPA Administrator signed a final action with two distinct findings regarding GHGs under Section 202(a) of the CAA:

- The Administrator is proposing to find that the current and projected concentrations of the mix of six key GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) in the atmosphere constitute a threat to public health and welfare of current and future generations. This is referred to as the endangerment finding.
- The Administrator is further proposing to find that the combined emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key GHGs and hence to the threat of GCC. This is referred to as the cause or contribute finding.

This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned below.

On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a final joint rule to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. The EPA is finalizing the first-ever national GHG emissions standards under the CAA, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under

the Energy Policy and Conservation Act. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO<sub>2</sub> per mile in model year 2016, equivalent to 35.5 miles per gallon (mpg).<sup>1</sup>

### 3.3.2 State Regulations/Standards

In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus, the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, to establish ARB. Since its formation, ARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems.

The ARB identified particulate emissions from diesel-fueled engines (diesel particulate matter [DPM]) as toxic air contaminants (TACs) in August 1998. Following the identification process, ARB was required by law to determine whether there is a need for further control. In September 2000, the ARB adopted the Diesel Risk Reduction Plan (Diesel RRP), which recommends many control measures to reduce the risks associated with DPM and to achieve goals of 75 percent DPM reduction by 2010 and 85 percent by 2020.

**3.3.2.1 Assembly Bill 1493.** In a response to the transportation sector's significant contribution to California's CO<sub>2</sub> emissions, AB 1493 (Pavley) was enacted on July 22, 2002. AB 1493 requires the ARB to set GHG emission standards for passenger vehicles and light-duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. ARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of approximately 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the midterm (2013–2016) standards will result in a reduction of approximately 30 percent.

**3.3.2.2 Senate Bill 1078.** Approved by Governor Davis in September 2002, Senate Bill (SB) 1078 established the Renewal Portfolio Standard program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1 percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010 (see SB 107) (see also Executive Order [EO] S-14-08).

**3.3.2.3 Executive Order S-3-05.** In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in EO S-3-05. This EO established the following goals for the State of California: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. The Secretary of Cal/EPA is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Representatives from several state agencies

<sup>1</sup> United States Environmental Protection Agency. *EPA and NHTSA Finalize Historic National Program to Reduce Greenhouse Gases and Improve Fuel Economy for Cars and Trucks*. <http://www.epa.gov/otaq/climate/regulations/420f10014.htm>, last accessed February 2012.

comprise the Climate Action Team (CAT). The CAT is responsible for implementing global warming emissions reduction programs. The CAT fulfilled its report requirements through the March 2006 CAT Report to Governor Schwarzenegger and the legislature (Cal/EPA 2006). As of the date of this report, subsequent CAT reports have been released for 2009 and 2010.

**3.3.2.4 Senate Bill 107.** Approved by Governor Schwarzenegger on September 26, 2006, SB 107 requires investor-owned utilities, such as Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric, to generate 20 percent of their electricity from renewable sources by 2010. Previously, State law required that this target be achieved by 2017 (see SB 1078).

**3.3.2.5 Assembly Bill 32.** California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. AB 32 requires ARB to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG emissions by January 1, 2008;
- Adopt an emissions reduction plan by January 1, 2009, indicating how emissions reductions will be achieved via regulations, market mechanisms, and other actions; and
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reductions of GHGs by January 1, 2011; and Prepare a Scoping Plan outlining the State's strategy to achieve the 2020 GHG emissions limit.

The ARB has established that the level of annual GHG emissions in 1990 was 427 MMT of CO<sub>2</sub>e.<sup>1</sup> The emissions target of 427 MMT of CO<sub>2</sub>e/year requires the reduction of 80 MMT from the State's projected "business-as-usual" 2020 emissions of 507 MMT<sup>2</sup> (i.e., the 1990 levels are approximately 30 percent below "business-as-usual"). "Business-as-usual" is a forecast of the California economy in 2020 without implementation of any of the GHG reduction measures identified in the Scoping Plan. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures (ARB 2008). More specifically, the Scoping Plan includes aggressive energy efficiency goals and methods for increasing renewable energy use. Meeting the goals in the Scoping Plan will require expanded utility-based energy efficiency programs, more stringent building and appliance standards, green building practices, waste reduction, and innovative strategies that go beyond traditional approaches. The Scoping Plan also relies on expanded efforts by the CEC and California Public Utilities Commission (CPUC). In August 2011, the Scoping Plan was reapproved by the ARB and includes the Final Supplement to the Scoping Plan Functional Equivalent Document (FED). Emission reductions that are projected to result from the recommended measures in the Scoping Plan are sufficient to allow California to attain the emissions goal of 427 million metric tons

<sup>1</sup> California Air Resources Board. California 1990 Greenhouse Gas Emissions Level and 2020 Limit. <http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm>, last accessed February 2012.

<sup>2</sup> California Air Resources Board. Greenhouse Gas Inventory - 2020 Emissions Forecast. <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>, last accessed February 2012.

of CO<sub>2</sub>e by 2020. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. It is important to note that even after Board approval, the Scoping Plan remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The ARB rule-making process includes preparation and release of each of the draft measures, public input through workshops, and a public comment period, followed by an ARB Board hearing and rule adoption.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB and the CAT to identify a list of “discrete early action GHG reduction measures” that could be adopted and made enforceable by January 1, 2010. On January 18, 2007, Governor Schwarzenegger signed EO S-1-07, further solidifying California’s dedication to reducing GHGs by setting a new Low Carbon Fuel Standard. This EO sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs ARB to consider the Low Carbon Fuel Standard as a discrete early action measure. ARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources such as algae, wood, and agricultural waste. In addition, the Low Carbon Fuel Standard would drive the availability of plug-in hybrid, battery electric, and fuel-cell power motor vehicles. The Low Carbon Fuel Standard is anticipated to replace 20 percent of the fuel used in motor vehicles with alternative fuels by 2020.

In June 2007, ARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High GWP Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The ARB adopted an additional six early action measures in October 2007 (ARB 2007). These measures relate to truck efficiency, port electrification, reduction of PFCs from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and SF<sub>6</sub> reductions from the nonelectricity sector. The combination of early action measures is estimated to reduce statewide GHG emissions by nearly 16 million metric tons.<sup>1</sup>

**3.3.2.6 Senate Bill 1368.** In September 2006, Governor Schwarzenegger signed SB 1368, which requires the CEC to develop and adopt regulations for GHG emissions performance standards for the long-term procurement of electricity by local, publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC. This effort will help to protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants, by requiring imported electricity to meet GHG performance standards in California and requiring that the standards be developed and adopted in a public process.

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<sup>1</sup> California Air Resources Board. 2007. “ARB approves tripling of early action measures required under AB 32.” News Release 07-46. October 25. Available at: <http://www.arb.ca.gov/newsrel/nr102507.htm>, last accessed February 2012.

**3.3.2.7 Senate Bill 97.** To assist public agencies in analyzing the effects of GHGs under State CEQA Guidelines, SB 97 (Chapter 185, 2007) required the Governor’s Office of Planning and Research (OPR) to develop State CEQA Guidelines on how to minimize and mitigate a project’s GHG emissions. On December 30, 2009, the Natural Resources Agency adopted State CEQA Guideline Amendments related to climate change. These amendments became effective on March 18, 2010. The amended guidelines establish several new State CEQA Guideline requirements concerning the analysis of GHGs, including:

- Requiring a lead agency to “make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project” (Section 15064(a))
- Providing a lead agency with the discretion to determine whether to use quantitative or qualitative analysis or performance standards to determine the significance of GHG emissions resulting from a particular project (Section 15064.4(a))
- Requiring a lead agency to consider the following factors when assessing the significant impacts from GHG emissions on the environment:
  - The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
  - Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
  - The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions. (Section 15064.4(b))
- Allowing lead agencies to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures, including offsets that are not otherwise required (Section 15126.4(c)).

The amended guidelines also establish two new guidance questions regarding GHG emissions in the Environmental Checklist set forth in Appendix G to the State CEQA Guidelines:

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

The adopted amendments do not establish a GHG emission threshold, and instead allow a Lead Agency to develop, adopt, and apply its own thresholds of significance or to apply those developed by other agencies or experts.<sup>1</sup> The Natural Resources Agency also acknowledges that a Lead Agency

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<sup>1</sup> The State CEQA Guidelines do not establish thresholds of significance for other potential environmental impacts, and SB 97 did not authorize the development of a statement threshold as part of this State CEQA Guidelines update. Rather, the proposed amendments recognize a Lead Agency’s existing authority to develop, adopt and apply their own thresholds of significance or those developed by other agencies or



may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project’s GHG emissions.<sup>1</sup>

**3.3.2.8 Senate Bill 375.** SB 375, signed into law on October 1, 2008, is intended to enhance ARB’s ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. The targets are required to consider the emission reductions associated with vehicle emission standards (see SB 1493), the composition of fuels (see EO S-1-07), and other ARB-approved measures to reduce GHG emissions. In late September 2010, the ARB announced GHG reduction goals for implementation by regional land use and transportation agencies. As shown below in Table J, the regional emissions reduction goal for Los Angeles/Southern California is 8 percent by 2020 and 13 percent by 2035, compared to 2005 emissions levels.

**Table J: September 2010 ARB SB 375 Reduction Goals**

	By 2020 (%)	By 2035 (%)
San Francisco Bay Area	7	15
San Diego	7	13
Sacramento	7	16
Central Valley/San Joaquin	5	10
Los Angeles/Southern California	8	13

ARB = California Air Resources Board  
SB = Senate Bill

ARB will work with California’s 18 metropolitan planning organizations to align their regional transportation, housing, and land use plans and prepare a “Sustainable Communities Strategy” within the Regional Transportation Plan to reduce the number of vehicle miles traveled in their respective regions and demonstrate the region’s ability to attain its GHG reduction targets. If a Sustainable Communities Strategy is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining State CEQA Guideline requirements by substantially reducing the requirements for “transit priority projects” as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects when the projects are consistent with the Sustainable Communities Strategy or Alternative Planning Strategy.

experts.” Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines, p. 84.

<sup>1</sup> “A project’s compliance with regulations or requirements implementing AB 32 or other laws and policies is not irrelevant. Section 15064.4(b)(3) would allow a Lead Agency to consider compliance with requirements and regulations in the determination of significance of a project’s greenhouse gas emissions.” Final Statement of Reasons, p. 100.

**3.3.2.9 Senate Bill X1-2.** On April 12, 2011, California Governor Jerry Brown signed SB X1-2. This bill supersedes the 33 percent by 2020 Renewable Portfolio Standard (RPS) created by EO S-14-08 that Governor Arnold Schwarzenegger previously signed. The RPS required that all retail suppliers of electricity in California serve 33 percent of their load with renewable energy by 2020. A number of significant changes are made in SB X1-2:

- SB X1-2 extends application of the RPS to all electric retailers in the State, including municipal and public-owned utilities, and community choice aggregators.
- SB X1-2 creates a three-stage compliance period for electricity providers to meet renewable energy goals: 20 percent of retail sales must be renewable energy products by 2013, 25 percent of retail sales must be renewable energy products by 2016, and 33 percent of retail sales must be renewable energy products by 2020. The 33 percent level must be maintained in the years that follow.
- This three-stage compliance period requires the RPS to be met increasingly with renewable energy that is supplied to the California grid and is located within or directly proximate to California. SB X1-2 mandates that renewables from this category make up:
  - At least 50 percent for the 2011–2013 compliance period
  - At least 65 percent for the 2014–2016 compliance period
  - At least 75 percent for 2016 and beyond
- SB X1-2 sets rules for the use of Renewable Energy Credits (RECs):
  - Establishes a cap of no more than 25 percent of unbundled RECs going towards the RPS between 2011 and 2013, 15 percent from 2014 to 2016, and 10 percent thereafter.
  - Does not allow for the grandfathering of Tradable REC contracts executed before 2010 unless the contract was (or is) approved by the CPUC.
  - Allows banking of RECs for 3 years only.
  - Allows Energy Service Providers, Community Choice Aggregators (CCAs), and Investor Owned Utilities (IOUs) with 60,000 or fewer customers to use 100 percent RECs to meet the RPS.
- SB X1-2 also eliminates the Market Price Referent (MPR), which was a benchmark to assess the above-market costs of RPS contracts based on the long-term ownership, operating, and fixed-price fuel costs for a new 500 megawatt (MW) natural gas-fired combined cycle gas turbine. Using the MPR, the CPUC would provide above-market funds to cover contract costs that exceeded the MPR, require the CPUC to establish a cost limit for each IOU, and authorize IOUs to stop procuring renewable energy beyond the cost limit. It also requires the CPUC to adopt a standard tariff for renewable projects up to 3 MW in size, with a 750 MW statewide cap on eligibility for the tariff.

**3.3.2.10 Executive Order S-21-09.** On September 15, 2009, Governor Schwarzenegger issued EO S-21-09. This EO directed ARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. On September 23, 2010, the ARB adopted the “Renewable Electricity Standard” (RES) to require a 33 percent by 2020 renewable energy procurement mandate for most retail sellers of electricity in California.<sup>1</sup>

**3.3.2.11 California Green Building Code.** California Green Buildings Standards Code (CALGreen Code) (California Code of Regulations [CCR], Title 24, part 11) was adopted by the California Building Standards Commission in 2010 and became effective in January 2011. The Code applies to all new constructed residential, nonresidential, commercial, mixed-use, and State-owned facilities, as well as schools and hospitals. The CALGreen Code is comprised of Mandatory Residential and Nonresidential Measures and more stringent Voluntary Measures (Tiers I and II).

Mandatory Measures are required to be implemented on all new construction projects and consist of a wide array of green measures concerning project site design, water use reduction, improvement of indoor air quality, and conservation of materials and resources. The CALGreen Building Code refers to Title 24, Part 6 compliance with respect to energy efficiency; however, it encourages 15 percent energy use reduction over that required in Part 6. Voluntary Measures are optional, more stringent measures that may be used by jurisdictions that strive to enhance their commitment towards green and sustainable design and achievement of AB 32 goals. Under Tiers I and II, all new construction projects are required to reduce energy consumption by 15 percent and 30 percent, respectively, below the baseline required under the CEC, as well as implement more stringent green measures than those required by mandatory code.

### 3.3.3 Regional Air Quality Planning Framework

The Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

The ARB is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. Significant authority for air quality control within the local air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

**Regional Air Quality Management Plan.** The SCAQMD and SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SCAB. Every three years, the SCAQMD prepares a new AQMP, updating the previous plan and with a 20-year planning horizon.

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<sup>1</sup> California Air Resources Board. *News Release: California commits to more clean green energy.* <http://www.arb.ca.gov/newsrel/newsrelease.php?id=155>, last accessed February 2012. Also refer to Title 17, Cal. Code Regs., Section 97004(a).

The SCAQMD adopted the 2012 AQMP in December 2012 and forwarded it to the ARB for review and approval in February 2013.

The 2012 AQMP incorporated the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The 2012 AQMP included the new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches.

### 3.3.4 City of West Hollywood

**City Climate Actions.** The City of West Hollywood has adopted numerous policies, programs, and incentives to assist the community in preserving the environment. Existing City programs and policies relevant to reducing communitywide GHG emissions include the following:

- Environmental Task Force – The City formed a task force of community members and City staff to examine how the community could reduce its ecological footprint. The recommendations of the task force were outlined in the Environmental Task Force Report released on September 12, 2008.
- Green Building Ordinance – On October 1, 2007, West Hollywood adopted one of the nation’s first mandatory green building ordinances. A key component of the West Hollywood Green Building Program is the Green Building Point System for new construction, which offers incentives for projects that achieve exemplary status across a range of sustainable measures.
- Green Building Resource Center – The Green Building Resource Center located on the second floor of City Hall provides samples of building materials and practices that increase energy efficiency, indoor air quality, and water conservation. The display provides information for homeowners, renters, businesses, and developers to make each new project in West Hollywood more sustainable.
- Recycling – In addition to standard household (blue and green cart) recycling for all residents, the City also has a Commercial Recycling Program. The City sends all commercial refuse to a Materials Recovery Facility (MRF) for separation and processing. The City also has a restaurant food waste recycling program, and sponsors drop off sites and events for batteries, cell phones, paper, cardboard and electronic waste.
- Polystyrene Ban – The City adopted a polystyrene ban in 1990. The ban prohibits use of polystyrene containers by restaurants, vendors, nonprofits, and food packagers, and prohibits the sale of polystyrene containers within the City for home use. Enforcing this ban has been a challenge.
- Plastic Bag Ban – On August 20, 2012, the City Council approved an ordinance to ban single-use plastic bags from all pharmacy, grocery, and retail stores. Under the phased implementation, supermarkets and large retail establishments of at least 10,000 square feet in size will be prohibited from supplying plastic bags after February 20, 2013, and retail stores less than 10,000 square feet in size will have until August 20, 2013, to comply with the plastic bag ban.
- City Vehicle Fleet – The City’s vehicle fleet includes nine hybrid vehicles and six bicycles used for parking enforcement, resulting in fuel savings and reduced CO<sub>2</sub> emissions. With the exception

of one compact pickup truck, the entire parking enforcement fleet consists of hybrid vehicles. The City also has both gasoline and hybrid vehicles for use by City staff. While not all vehicles are hybrid, the City has a hybrid/alternative vehicle procurement policy that will replace all remaining gasoline powered vehicles at the end of their life.

- Tree Planting – For many years, the City has sponsored tree planting programs throughout the community. Additionally, the City operates a Heritage Tree Program to identify, maintain, and protect designated Heritage Trees within the City.

While the policies and programs listed above have the potential to reduce GHG emissions, data limitations restrict the City's ability to quantify their reduction capacity. Furthermore, to the extent that these policies and programs were in place in 2008, their GHG reduction potential is accounted for within the baseline emissions inventory.

**Climate Action Plan.** *CEQA Guidelines* Section 15183.5 allows jurisdictions to analyze and mitigate the significant effects of GHGs at a programmatic level, by adopting a plan for the reduction of GHG emissions. The City of West Hollywood published its CAP on September 6, 2011, "designed to address climate change and reduce the community's GHG emissions at the local level." As stated in the CAP, "Although climate change is a global problem, the City recognizes that many strategies to adapt to a changing climate and combat its progression are best enacted at the local level. This plan recommends a series of actions West Hollywood can take to reduce its contributions to global climate change by reducing GHG emissions. The CAP includes actions in which every part of the community can participate – residents, property owners, businesses, and City government."

The CAP outlines a course of action to reduce municipal and communitywide GHG emissions that contribute to climate change. The CAP seeks to:

- Provide clear guidance to City staff and decision-makers regarding when and how to implement key actions to reduce GHG emissions;
- Place the City on a path to reduce annual communitywide GHG emissions by 20 to 25 percent below 2008 business-as-usual emission levels by 2035;
- Inspire residents, property owners, and businesses to participate in community efforts to reduce GHG emissions; and
- Demonstrate West Hollywood's ability to respond to and comply with California GHG reduction legislation and guidelines.

The CAP includes strategies and performance indicators to reduce GHG emissions from both municipal and communitywide activities within West Hollywood. These strategies address seven major GHG sources and recommend actions to achieve GHG reductions through:

- Community leadership and engagement
- Land use and community design
- Transportation and mobility
- Energy use and efficiency

- Water use and efficiency
- Waste reduction and recycling
- Green space

A project-specific environmental document that relies on this CAP for its cumulative impacts analysis must identify the specific CAP measures applicable to the project and how the project incorporates the measures. If the measures are not otherwise binding and enforceable, they must be incorporated as mitigation measures applicable to the project.

## 4.0 THRESHOLDS AND METHODOLOGY

A number of modeling tools are available to assess air quality impacts of projects. In addition, certain air districts, such as the SCAQMD, have created guidelines and requirements to conduct air quality analysis. SCAQMD's current guidelines, *CEQA Air Quality Handbook*, April 1993, were adhered to in the assessment of air quality impacts for the proposed project. The air quality models identified in the document are outdated; therefore, the current model, CalEEMod Version 2013.2.2, was used to estimate project-related mobile and stationary source emissions in this air quality assessment.

The air quality assessment includes estimating emissions associated with short-term construction and long-term operation of the proposed project. Criteria pollutants with regional impacts would be emitted by project-related vehicular trips, as well as by emissions associated with stationary sources used on site. Localized air quality impacts, including higher carbon monoxide (CO) concentrations (CO hot spots) near intersections or roadway segments in the project vicinity, would be potentially caused by project-related traffic increases.

The net increase in pollutant emissions determine the significance and impact on regional air quality as a result of the proposed project. The results also allow the local government to determine whether the proposed project will deter the region from achieving the goal of reducing pollutants in accordance with the AQMP in order to comply with federal and State AAQS.

### 4.1 THRESHOLDS OF SIGNIFICANCE

Based on *Guidelines for the Implementation of California Environmental Quality Act*, Appendix G, Public Resource Code (PRC) Sections 15000–15387, a project would normally be considered to have a significant effect on air quality if the project would violate any ambient air quality standards, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

In addition to the federal and State AAQS, there are daily and quarterly emissions thresholds for construction and operation of a proposed project in the SCAB. The SCAB is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook* (SCAQMD, April 1993) are used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the SCAB in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

#### 4.1.1 Construction Emissions Thresholds

The following CEQA significance thresholds for construction emissions have been established for the SCAB:

- 75 pounds per day (lbs/day) of reactive organic compounds (ROC)
- 100 lbs/day of NO<sub>x</sub>
- 550 lbs/day of CO
- 150 lbs/day of PM<sub>10</sub>
- 55 lbs/day of PM<sub>2.5</sub>
- 150 lbs/day of sulfur oxides (SO<sub>x</sub>)

Projects in the SCAB with construction related emissions that exceed any of the emission thresholds are considered to be significant under the SCAQMD guidelines.

#### 4.1.2 Operational Emissions Thresholds

The daily operational emissions “significance” thresholds for the SCAB are as follows.

**Emission Thresholds for Pollutants with Regional Effects.** Projects with operation related emissions that exceed any of the emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 lbs/day of ROC
- 55 lbs/day of NO<sub>x</sub>
- 550 lbs/day of CO
- 150 lbs/day of PM<sub>10</sub>
- 55 lbs/day of PM<sub>2.5</sub>
- 150 lbs/day of SO<sub>x</sub>

**Local Microscale Concentration Standards.** The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm



### 4.1.3 Localized Significance Thresholds

SCAQMD has developed LST methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts. 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 AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (June 2003, revised July 2008), and *Final-Methodology to Calculate Particulate Matter (PM)<sub>2.5</sub> and PM<sub>2.5</sub> Significance Thresholds* (October 2006) were adhered to in the assessment of air quality impacts for the proposed project.

In the case of CO and NO<sub>2</sub>, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM<sub>10</sub> and PM<sub>2.5</sub>, both of which are nonattainment pollutants. For these two, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 µg/m<sup>3</sup> applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 µg/m<sup>3</sup> applies to nonaggregate handling operational activities.

To avoid the need for every air quality analysis to perform air dispersion modeling, the SCAQMD performed air dispersion modeling for a range of construction sites less than or equal to 5 acres (ac) in size and created look-up tables that correlate pollutant emissions rates with project size to screen out projects that are unlikely to generate enough emissions to result in a locally significant concentration of any criteria pollutant. These look-up tables can also be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required.

For this project the appropriate Source Receptor Area (SRA) is the Northwest Coastal LA County (SRA 2), according to the SRA/City Table on the SCAQMD LST website.<sup>1</sup> The site is approximately 3 ac; thus, 3 ac thresholds were interpolated from the 5 and 2 ac thresholds supplied by SCAQMD. There are existing residential uses to the south at a distance of approximately 200 ft (60 meters [m]) from the closest construction area. The following thresholds apply for this project:

Construction thresholds for a 3 ac site at 60 m:

- 169 lbs/day of NO<sub>x</sub>
- 1,586 lbs/day of CO
- 29 lbs/day of PM<sub>10</sub>
- 7.1 lbs/day of PM<sub>2.5</sub>

Operational thresholds for a 3 ac site at 60 m:

<sup>1</sup> [www.aqmd.gov/ceqa/handbook/LST/LST.html](http://www.aqmd.gov/ceqa/handbook/LST/LST.html).

- 169 lbs/day of NO<sub>x</sub>
- 1,586 lbs/day of CO
- 7.4 lbs/day of PM<sub>10</sub>
- 2.3 lbs/day of PM<sub>2.5</sub>

#### 4.1.4 Health Risk Analysis Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), “substantial” indicates that the individual cancer risk exceeds a threshold considered to be a prudent risk-management level. If best-available control technology for toxics (T-BACT) has been applied, the individual cancer risk to the maximally exposed individual (MEI) must not exceed 10 in 1 million in order for an impact to be determined not to be significant.

Airborne impacts are also derived from materials considered to be a nuisance for which there may not be associated standards. Odors or the deposition of large-diameter dust particles outside the PM<sub>10</sub> size range would be included in this category. It is considered a significant impact for odors and large-diameter dust particles if the SCAQMD nuisance thresholds (Rule 402) would be potentially violated.

The following limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard indices (HI) from project emissions of TACs have been established for the SCAB:

- **MICR and Cancer Burden.** MICR is the estimated probability of a potential MEI contracting cancer as a result of exposure to TACs over a period of 70 years for residential and 46 years for worker receptor locations. The MICR calculations include multipathway consideration when applicable. Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million ( $1.0 \times 10^{-6}$ ) resulting from exposure to TACs.

The cumulative increase in MICR that is the sum of the calculated MICR values for all TACs emitted from the project will not result in either of the following:

- An increased MICR greater than 10 in 1 million ( $1.0 \times 10^{-5}$ ) at any receptor location (assumes the project will be constructed with T-BACT)
- A cancer burden greater than 0.5
- **Chronic HI.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multipathway consideration when applicable.

The cumulative increase in total chronic HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.

- **Acute HI.** This is the ratio of the estimated maximum 1-hour concentration of a TAC for a potential MEI to its acute reference exposure level.

The cumulative increase in total acute HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.

#### **4.1.5 Global Warming**

The CEQA Guidelines establish that the proposed project would have a significant impact related to greenhouse gas emissions if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Neither ARB nor the SCAQMD have adopted a significance threshold for analyzing GHG emissions associated with land use development projects such as the proposed project. The methodology used in this study to analyze the project's contribution to global climate change includes a quantification of GHG emissions. The purpose of calculating the project's GHG emissions is for informational and comparative purposes. The determination of significance is focused on project consistency with the City of West Hollywood CAP, which is the blueprint for managing GHG emissions within the City.

## 5.0 IMPACTS

Air pollutant emissions associated with the project would occur over the short term from construction activities such as fugitive dust from site preparation and grading and emissions from equipment exhaust. There would be long-term regional emissions associated with project-related vehicular trips and stationary source emissions such as natural gas used for heating. Long-term local CO emissions at intersections in the project vicinity are not expected to be significantly affected by project-related traffic.

### 5.1 CONSTRUCTION IMPACTS

Construction activities produce combustion emissions from various sources such as demolition, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions.

Because of the deep excavation required for the subterranean levels, construction would be completed in a series of steps over an estimated 33-month period, including the export of approximately 172,500 cubic yards (cy) of soil. Excavation would be completed in the first 9 months of the overall 33-month schedule.

All construction projects in the SCAB must comply with SCAQMD Rule 403 and applicable standard conditions. In addition, emissions associated with construction equipment would be reduced with the use of newer, lower-emissions equipment, such as equipment manufactured in compliance with the EPA Tier 3 rating, as required in the City's General Plan EIR Mitigation Measure 3.15-1<sup>1</sup>. This measure requires new construction projects to implement all feasible measures for reducing GHG emissions associated with construction that are recommended by the City and/or SCAQMD at the time of construction. While the City's General Plan EIR Mitigation Measure 3.15-1 doesn't explicitly specify Tier 3 equipment, it does require project Applicant(s) use equipment with new technologies, which currently means Tier 3-level equipment. The Tier 1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas after treatment (oxidation catalysts). Tier 3 standards for NO<sub>x</sub>+HC are similar in stringency to the 2004 standards for highway engines. EPA developed increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008; equipment meeting Tier 2 and 3 levels have been available for many years now.

The most recent version of the CalEEMod model (Version 2013.2.2) was used to calculate the construction emissions, as shown in Table K. These emissions are the combination of the on- and off-

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<sup>1</sup> Full text of the West Hollywood General Plan EIR Mitigation Measure 3.15-1 is contained in Appendix B of the Air Quality Analysis [Appendix C]).

site emissions. The emissions rates shown in Table K are from the CalEEMod output tables listed as “Mitigated Construction,” even though the only measures that have been applied to the analysis are the required construction emissions control measures or the standard conditions. Compliance with SCAQMD standard conditions, including Rule 403 (listed in Standard Conditions AQ-1 and AQ-2), General Plan EIR Mitigation Measure 3.15-1, and the City’s Climate Action Plan (CAP) have been included in the calculations of construction emissions. As shown in Table K, with incorporation of these standard conditions and emission control measures, construction emissions would not exceed any of the SCAQMD’s thresholds. It is assumed that none of the phases would overlap. Details of the emission factors and other assumptions are included in Appendix A.

**Table K: Short-Term Regional Construction Emissions**

Construction Phase	Total Regional Pollutant Emissions, lbs/day								
	ROC	NO <sub>x</sub>	CO	SO <sub>x</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	CO <sub>2e</sub>
Demolition	1.9	34	38	0.069	1.9	1.5	0.34	1.5	7,200
Site Preparation	1.8	34	41	0.072	7.2	1.5	3.9	1.5	7,700
Grading & Excavation	3.0	60	73	0.12	2.6	2.6	1.3	2.6	13,000
Building Construction	4.2	35	64	2.0	3.4	2.0	2.0	2.0	9,600
Paving	0.59	11	16	0.024	0.19	0.79	0.051	0.79	2,400
Architectural Coating	38	1.7	5.6	0.01	0.54	0.10	0.14	0.10	900
<b>SCAQMD Thresholds</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>		<b>55</b>		<b>No Threshold</b>
<b>Significant Emissions?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>		<b>No</b>		

Source: LSA Associates, Inc., November 2013.

CO = carbon monoxide

CO<sub>2</sub> = carbon dioxide

CO<sub>2e</sub> = carbon dioxide equivalent

lbs/day = pounds per day

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

PM<sub>10</sub> = particulate matter less than 10 microns in size

ROC = reactive organic compounds

SCAQMD = South Coast Air Quality Management District

SO<sub>x</sub> = sulfur oxides

### 5.1.1 Fugitive Dust

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, as well as cut-and-fill grading operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions at the time of construction.

PM<sub>2.5</sub> and PM<sub>10</sub> emissions from grading operations during a peak construction day were calculated using the CalEEMod model (Version 2013.2.2) and are included in the emissions listed in Table K. The total construction emissions (i.e., fugitive dust emissions and construction equipment exhausts) listed in Table K have incorporated the required construction emissions control measures from the CAP and the SCAQMD standard conditions to significantly reduce fugitive dust emissions from construction. The NO<sub>x</sub> emissions during construction were reduced up to 53% due to the use of Tier-3 equipment as required in the City’s General Plan EIR Mitigation Measure 3.15-1 and the fugitive dust emissions during construction were reduced up to 59% by implementing the SCAQMD standard measures including Rule 403.

As shown in Table K, PM<sub>2.5</sub> and PM<sub>10</sub> emissions from grading operations during a peak construction day are not anticipated to exceed the SCAQMD thresholds. Although no mitigation is required, the proposed project would be required to comply with SCAQMD standard conditions and Rule 403 (as listed in Section 5.8, Standard Conditions, of this report) to control fugitive dust.

### 5.1.2 Localized Significance Analysis

Table L shows the construction-related onsite emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> compared to the LSTs for the Northwest Coastal LA County SRA at distances of 60 m (197 ft).

**Table L: Summary of Construction Emissions Localized Significance**

Construction Phase	Emission Rates (lbs/day)			
	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition	31	26	2.7	1.5
Site Preparation	40	34	8.6	5.4
Grading	73	59	5.2	3.9
Building	25	19	1.1	1.1
Arch. Coating and Paving	17	13	0.88	0.88
<b>Localized Significance Threshold</b>	<b>1,586</b>	<b>169</b>	<b>29</b>	<b>7.1</b>
<b>Exceed Significance?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: LSA Associates, Inc., November 2013.

SRA: Northwest Coastal LA County , 3 acres, 60 meters distance

CO = carbon monoxide

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

lbs/day = pounds per day

PM<sub>10</sub> = particulate matter less than 10 microns in size

NO<sub>x</sub> = nitrogen oxides

Table L shows that the maximum emissions from project construction will not cause or contribute to an exceedance of the most stringent applicable federal or State AAQS. Therefore, the proposed construction activities would not cause any locally significant air quality impacts.

### 5.1.3 Odors

Heavy-duty equipment in the project area during construction would emit odors. However, the construction activity would be approximately 33 months and would cease to occur after individual construction is completed. No other sources of objectionable odors were identified for the proposed project.

SCAQMD Rule 402 regarding nuisances states: “A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.” The proposed mixed-use land uses are required to follow local refuse control ordinances and thus are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

## 5.2 LONG-TERM REGIONAL AIR QUALITY IMPACTS

### 5.2.1 Long-Term Project Operational Emissions

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The proposed project would increase on-site retail space to 45,112 sf, increase the office space to 137,064 sf, and add a 16,404 sf art gallery, a 12,303 sf design showroom, 8,202 sf of restaurant uses, and 76 apartments. The stationary source emissions would come from many sources, including the use of consumer products, landscape equipment, general energy, and solid waste. Based on trip generation factors, as described in the project traffic study (LSA Associates, Inc. November 2013), long-term operational emissions associated with the existing land uses and the proposed project, calculated with the CalEEMod model, are shown in Table M. Area sources include architectural coatings, consumer products, hearth, and landscaping. Energy sources include natural gas consumption for heating and cooking. Table M shows that the increase of all criteria pollutants, as a result of the proposed project, would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants. The total operational emissions listed in Table M have incorporated standard conditions including compliance with Title 24 California Code of Regulations related to construction materials (e.g. dual paned windows and low emission water heaters). These measures are included in the standard measures Section 5.8.2. Therefore, project-related long-term air quality impacts would be less than significant.

**Table M: Long-Term Regional Operational Emissions**

Source	Pollutant Emissions, lbs/day					
	ROC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Existing Land Use</b>						
Area Sources	1.6	0.00007	0.0068	0	0.00003	0.00003
Energy Sources	0.0095	0.087	0.073	0.00052	0.0066	0.0066
Mobile Sources	11	24	110	0.15	10	3.1
<b>Total</b>	<b>13</b>	<b>24</b>	<b>110</b>	<b>0.15</b>	<b>10</b>	<b>3.1</b>
<b>Proposed Development</b>						
Area Sources	14	0.077	6.6	0.00034	0.13	0.13
Energy Sources	0.16	1.5	1.2	0.009	0.11	0.11
Mobile Sources	19	37	160	0.3	20	5.6
<b>Total</b>	<b>33</b>	<b>39</b>	<b>170</b>	<b>0.31</b>	<b>20</b>	<b>5.8</b>
<b>Net Increase</b>	<b>21</b>	<b>15</b>	<b>60</b>	<b>0.16</b>	<b>10</b>	<b>2.7</b>
<b>SCAQMD Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: LSA Associates, Inc., November 2013.

CO = carbon monoxide

CO<sub>2</sub> = carbon dioxide

lbs/day = pounds per day

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

PM<sub>10</sub> = particulate matter less than 10 microns in size

ROCs = reactive organic compounds

SCAQMD = South Coast Air Quality Management District

SO<sub>x</sub> = sulfur oxides

### 5.2.2 Localized Significance Analysis

Table N shows the calculated emissions for the proposed operational activities compared with the appropriate localized significance thresholds. The emissions shown include all stationary and 1 percent of the mobile sources, which is an estimate of the amount of project-related vehicle traffic that will occur on site.

**Table N: Summary of Operational Localized Significance**

	Emission Rates (lbs/day)			
	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Proposed Project	8.2	0.45	0.33	0.19
<b>Localized Significance Threshold</b>	<b>1,586</b>	<b>169</b>	<b>7.4</b>	<b>2.3</b>
<b>Exceed Significance?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: LSA Associates, Inc., November 2013.

lbs/day = pounds per day

Table N shows that the maximum emissions from project operation will not cause or contribute to an exceedance of the most stringent applicable federal or State AAQS. Therefore, the proposed operational activity will not cause any localized significant air quality impacts.

## 5.3 GLOBAL CLIMATE CHANGE

### 5.3.1 Greenhouse Gas Plan, Policy, Regulation Consistency

The City adopted a CAP that includes measures intended to reduce GHG emissions within City operations and the community at large. The CAP defines community strategies and GHG reduction measures through text and maps and recommends implementation actions for each quantified GHG reduction measure. As a whole, the measures were designed and benchmarked to specific standards to enable the City to achieve its GHG reduction target of 20 to 25 percent below 2008 levels by 2035, as required by AB 32. As proposed, the CAP exceeds the AB 32 target, with a projected 25.5 percent reduction.

The project site is designated and zoned CC2 (Community Commercial) in the City of West Hollywood General Plan. This designation is intended to provide a wide variety of commercial opportunities to serve local community needs as well as broader market areas. The proposed project is consistent with the General Plan and, thus, is consistent with growth assumptions used to develop the CAP. Therefore, the proposed project would comply with the following applicable CAP policies and goals, as described below:

- LU-1.1: Facilitate the establishment of mixed-use, pedestrian- and transit-oriented development along the commercial corridors and in Transit Overlay Zones.

The project site is designated and zoned CC2 (Community Commercial) in the City of West Hollywood General Plan. The CC2 zone is for parcels that support regional retail uses due the presence of a high volume of vehicle traffic. The project site is also



located within a Mixed-Use Incentive Overlay Zone and the Santa Monica/La Brea Transit District. The Mixed-Use Incentive Overlay Zone identifies certain locations where a mix of residential and commercial uses is encouraged. The Transit Overlay Zone is intended to encourage mixed-use development in locations with adequate transit service to reduce the need for automobile trips. The proposed mixed-use project would be located along the Santa Monica Boulevard commercial corridor and near multiple transit options.

- T-1.1: Increase the pedestrian mode share in West Hollywood with convenient and attractive pedestrian infrastructure and facilities.

The design of the building and proposed landscape amenities would enhance the pedestrian experience along this stretch of Santa Monica Boulevard. The design includes unique styling to add to the diversity of the area and make the frontage pedestrian-friendly and visually interesting. Additionally, it would provide new street level retail and restaurant uses to encourage pedestrian movement along Santa Monica Boulevard.

- E-1.5: Develop an energy efficient appliance upgrade program for residents and business owners to promote upgrades from inefficient appliances to new Energy Star appliances.

Refrigerators, washing machines, and dishwashers installed as part of the proposed project would be Energy Star products. In addition, the proposed project would exceed the requirements in the Title 24 Energy Code by 20 percent.

- E-2.2: Require all new construction to achieve California Building Code Tier II Energy Efficiency Standards (Section 503.1.2).

The proposed project would be required to achieve California Building Code Tier II Energy Efficiency Standards, which states that new construction must exceed 2007 California Energy Code requirements (by 30 percent over 2007 Title 24 requirements).

- E-3.1: Require that all new construction and condominium conversions be sub-metered to allow each tenant the ability to monitor their own energy and water use.

The proposed project would be submetered for water, gas, and electric for each unit to encourage conservation.

- E-3.2: Require the use of recycled materials for 20 percent of construction materials in all new construction.

The proposed project would incorporate materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 20 percent of the total value of the materials used at the project site.

W-1.1: Reduce per capita water consumption by 30 percent by 2035.

Water saving features associated with the proposed project would include low-flow showerheads, kitchen faucets, and shower faucets (less than two gallons per minute). The proposed project would also have dual-flush water-efficient toilets.

W-1.2: Encourage all automated irrigation systems installed in the City to include a weather-based control system.

The proposed project landscaping features would include low-water native landscaping and use an automated weather-based irrigation control system.

Additionally, the proposed project would be required to implement mitigation measure 3.15-1 from the City's General Plan EIR (full text in Appendix B). This measure states that:

“To further reduce construction-generated GHG emissions, the project applicant(s) of all project phases shall implement all feasible measures for reducing GHG emissions associated with construction that are recommended by the City and/or SCAQMD at the time individual portions of the site undergo construction.

Prior to releasing each request for bid to contractors for the construction of each development phase, the project applicant(s) shall obtain the most current list of GHG reduction measures that are recommended by the City and stipulate that these measures be implemented in the respective request for bid as well as the subsequent construction contract with the selected primary contractor.

The project applicant(s) for any particular development phase may submit to the City a report that substantiates why specific measures are considered infeasible for construction of that particular development phase and/or at that point in time. The report, including the substantiation for not implementing particular GHG reduction measures, shall be approved by the City prior to the release of a request for bid by the project applicant(s) for seeking a primary contractor to manage the construction of each development phase. By requiring that the list of feasible measures be established prior to the selection of a primary contractor, this measure requires that the ability of a contractor to effectively implement the selected GHG reduction measures be inherent to the selection process.

The City's recommended measures for reducing construction-related GHG emissions at the time of writing this technical report are listed below. The list will be updated as new technologies or methods become available. The project applicant(s) shall, at a minimum, be required to implement the following:

- Improve fuel efficiency of construction equipment:
  - reduce unnecessary idling (modify work practices, install auxiliary power for driver comfort);

- perform equipment maintenance (inspections, detect failures early, corrections);
- train equipment operators in proper use of equipment;
- use the proper size of equipment for the job; and
- use equipment with new technologies (repowered engines, electric drive trains).
- Use alternative fuels for electricity generators and welders at construction sites such as propane or solar, or use electrical power.
- Use an ARB-approved low-carbon fuel, such as biodiesel or renewable diesel for construction equipment. (Emissions of oxides of nitrogen from the use of low carbon fuel must be reviewed and increases mitigated.) Additional information about low-carbon fuels is available from ARB's Low Carbon Fuel Standard Program.
- Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Recycle or salvage nonhazardous construction and demolition debris (goal of at least 75 percent by weight).
- Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk, and curb materials).
- Minimize the amount of concrete used for paved surfaces or use a low carbon concrete option.
- Produce concrete onsite if determined to be less emissive than transporting ready mix.
- Use EPA-certified SmartWay trucks for deliveries and equipment transport. Additional information about the SmartWay Transport Partnership Program is available from ARB's Heavy-Duty Vehicle Greenhouse Gas Measure.
- Develop a plan to efficiently use water for adequate dust control. This may consist of the use of non-potable water from a local source."

Lastly, the proposed project would be designed and constructed in accordance with the City's Green Building Ordinance, which would include implementing energy efficient systems and appliances, installing energy efficient lighting, and using water-efficient landscaping, irrigation systems and water conserving plumbing and fixtures. As designed, the proposed project would exceed Title 24 energy requirements by 20 percent, would use low-VOC interior paints (approximately 50 grams per liter), and would include solar panels.

Based on compliance with the CAP, the City's Green Building Ordinance, and implementation of mitigation measure 3.15-1 from the General Plan EIR, GHG emissions were quantified for the proposed project. As previously identified, implementation of the proposed project would increase on-site retail space to 45,112 sf, increase the office space to 137,064 sf, and add a 16,404 sf art gallery, a 12,303 sf design showroom, 8,202 sf of restaurant uses, and 76 apartments. The proposed project includes a variety of physical attributes and operational programs that would generally

contribute to a reduction in operational-source pollutant emissions including GHG emissions. The emission calculations take into account on-road mobile vehicle operations, general electricity consumption, electricity consumption associated with the use and transport of water, natural gas consumption, and solid waste decomposition during construction and operations. Similar to the operational emissions presented in Section 5.2.1, GHG emissions were estimated using CalEEMod. GHG emissions that could be generated on the proposed project site would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with project-related vehicular trips and stationary source emissions, such as natural gas used for heating. Based on SCAQMD guidance, the emissions summary includes construction emissions amortized over a 30-year span, as shown in Table O. Calculations and CalEEMod run sheets for GHG emissions are provided in Appendix A.

**Table O: Long-Term Regional GHG Operational Emissions**

Construction Phase	Total Regional Pollutant Emissions, MT/year					
	Bio-CO <sub>2</sub>	NBio-CO <sub>2</sub>	Total-CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Construction Emissions Amortized over 30 Years	0	140	140	0.02	0	140
Operational Emissions						
Area Sources	0	18	18	0.0018	0.0003	18
Energy Sources	0	3,000	3,000	0.069	0.019	3,000
Mobile Sources	0	3,700	3,700	0.17	0	3,700
Waste Sources	43	0	43	2.5	0	96
Water Usage	9.8	220	230	1.0	0.025	260
Total Project Emissions	53	6,900	7,000	3.7	0.044	7,100
Existing Site Emissions	15	2,600	2,600	1.1	0.01	2,700
Net Project Emissions	38	4,300	4,400	2.6	0.035	4,400

Source: LSA Associates, Inc., November 2013.

Bio-CO<sub>2</sub> = biologically generated CO<sub>2</sub>

CH<sub>4</sub> = methane

CO<sub>2</sub> = carbon dioxide

CO<sub>2</sub>e = carbon dioxide equivalent

GHG = greenhouse gas

MT = metric tons

N<sub>2</sub>O = nitrous oxide

NBio-CO<sub>2</sub> = non-biologically generated CO<sub>2</sub>

As shown in Table O, the proposed project would result in 4,400 new metric tons per year of CO<sub>2</sub>e, or 8.5 metric tons of CO<sub>2</sub>e per year per the service population.<sup>1</sup> By implementing the project features and GHG reducing measures described above, the proposed project would result in a GHG emission profile that is better (lower) than business-as-usual. Project-generated GHG emissions would be less than the 9.7 metric tons of CO<sub>2</sub>e per year per service population (see Table F) identified in the City of West Hollywood General Plan EIR and CAP for the entire City. In addition, the estimated emissions of 4,400 metric tons per year would be less than the California Air Pollution Control Officers Association 10,000-metric ton emissions standard for capturing 50 percent of new development. Approximately 52 percent of project emissions would be related to mobile sources. Although difficult to quantify, it is anticipated that mobile source emissions would be reduced in the future as regional

<sup>1</sup> Service population for the project includes 120 residents and 517 new employees minus the 120 existing employees, resulting in a service population increase of 517 (4,400 / 517 = 8.5).

transit expands (e.g., Regional Connector and Westside Subway Extension) and project-related single-occupancy vehicle trips are reduced.

The proposed project would comply with the plans and policies in the City's CAP; comply with mitigation measure 3.15-1 in the General Plan EIR for the purpose of reducing GHG emissions; and comply with the City's Green Building Ordinance. Based on this analysis, project-related GHG emissions would not conflict with the City of West Hollywood's General Plan and CAP, which is intended to exceed the AB 32 emission reduction targets. The CAP features, General Plan mitigation measure, and project design features would meaningfully reduce project-generated GHG emissions and would ensure that the project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, the proposed project would result in a less than significant impact, and no mitigation measures are required.

#### **5.4 LONG-TERM MICROSCALE (CO HOT SPOT) ANALYSIS**

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality effects would occur if emissions from vehicular traffic increase in local areas as a result of the proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentration, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the West Los Angeles-North Main Street station, the closest station with monitored CO data, showed a highest-recorded 1-hour concentration of 2.8 ppm (State standard is 20 ppm) and a highest-recorded 8-hour concentration of 2.4 ppm (State standard is 9 ppm) during the past 3 years (see Table G).

The highest CO concentrations would occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Based on the *Traffic Impact Analysis* prepared for this project (LSA, March 2012), CO hot spot analyses were conducted for existing and future cumulative conditions. The impact on local carbon monoxide levels was assessed with the ARB-approved CALINE4 air quality model, which allows microscale CO concentrations to be estimated along roadway corridors or near intersections (model output listed in Appendix C). This model is designed to identify localized concentrations of CO, often termed "hot spots." A brief discussion of input to the CALINE4 model follows. The analysis was performed for the worst-case wind angle and wind speed condition and is based upon the following assumptions:

- Selected modeling locations represent the intersections closest to the project site, with the highest project-related vehicle turning movements and the worst level of service deterioration.

- Twenty receptor locations with the possibility of extended outdoor exposure from 7 m (approximately 23 ft) to 21 m (approximately 69 ft) of the roadway centerline near intersections were modeled to determine CO concentrations.
- The calculations assume a meteorological condition of almost no wind (0.5 m/second), a suburban topographical condition between the source and receptor, a temperature of 55 degrees Fahrenheit (°F) (minimum average January temperature of 45.1°F plus 10°F) and a mixing height of 1,000 meters (m), representing a worst-case scenario for CO concentrations.
- CO concentrations are calculated for the 1-hour averaging period and then compared to the 1-hour standards. CO 8-hour averages are extrapolated using techniques outlined in the SCAQMD *CEQA Air Quality Handbook* and compared to the 8-hour standards; a persistence factor of 0.7 was used to predict the 8-hour concentration in a nonattainment area.
- Concentrations are given in ppm at each of the receptor locations.
- The “at-grade” link option with speed adjusted based on average cruise speed and number of vehicles per lane per hour was used rather than the “intersection” link selection in the CALINE4 model. (The California Department of Transportation [Caltrans] has suggested that the “intersection” link should not be used due to an inappropriate algorithm based on outdated vehicle distribution.) Emission factors from the EMFAC2007 model for all vehicles based on the adjusted speed for 2012 and 2016 were used for the vehicle fleet.
- The highest levels of the second-highest 1-hour and 8-hour CO concentrations monitored at the West Los Angeles-North Main Street station in the past 3 years were used as background concentrations: 2.6 ppm for the 1-hour CO and 2.3 ppm for the 8-hour CO. The “background” concentrations are then added to the model results for future with and without the proposed project conditions.

The proposed project would contribute to increased CO concentrations at intersections in the project vicinity. As shown in Table P, under existing conditions, all 11 intersections analyzed would have 1-hour and 8-hour CO concentrations below the federal and State standards. The existing CO concentrations are from current traffic in the vicinity of these intersections.

For the future opening year scenario, traffic volumes projected for opening year (2016) were used, with 2016 emission factors for CO. The current year background CO concentrations at the West Los Angeles-North Main Street station were used for the future opening year conditions. Table Q shows that, under the 2016 opening year condition, none of the 11 intersections analyzed would exceed either the 1-hour or the 8-hour CO concentration federal and State standards. These 11 intersections were chosen for analysis because they had the greatest potential for excessive CO emissions based on traffic volumes. Even though higher traffic volumes are anticipated, the lower overall CO concentrations are generally due to lower future vehicular emissions from advanced technology and lower ambient CO levels in the future. The proposed project would contribute at most a 0.1 ppm increase to the 1-hour CO concentrations and 0.1 ppm increase to the 8-hour CO concentrations at these intersections. The proposed project would not have a significant impact on local air quality for CO, and no mitigation measures would be required.

**Table P: Existing (2012) CO Concentrations<sup>1</sup>**

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-Hour/8-Hour (ppm)	Without/With Project 1-Hour CO Concentration (ppm)	Without/With Project 8-Hour CO Concentration (ppm)	Exceeds State Standards <sup>2</sup>	
					1-Hour	8-Hour
La Cienega Blvd. and Santa Monica Blvd.	17 / 17	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No
	12 / 12	0.1 / 0.1	4.0 / 4.1	3.3 / 3.4	No	No
La Cienega Blvd. and Melrose Ave.	17 / 14	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
	21 / 17	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
San Vicente Blvd. and Melrose Ave.	15 / 15	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No
	17 / 15	0.0 / 0.0	4.1 / 4.1	3.4 / 3.4	No	No
	15 / 17	0.1 / 0.1	4.0 / 4.1	3.3 / 3.4	No	No
Robertson Blvd. and Santa Monica Blvd.	15 / 15	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
	14 / 14	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	14 / 14	0.1 / 0.0	3.7 / 3.8	3.1 / 3.1	No	No
Robertson Blvd. and Melrose Ave.	14 / 14	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	12 / 12	0.1 / 0.1	3.9 / 4.0	3.2 / 3.3	No	No
	10 / 10	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	15 / 15	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
Robertson Blvd. and Beverly Blvd.	17 / 17	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	8 / 8	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	8 / 8	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
Doheny Dr. and Sunset Blvd.	8 / 8	0.1 / 0.1	3.5 / 3.6	2.9 / 3.0	No	No
	14 / 14	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	12 / 12	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
Doheny Dr. and Elevado Ave.	12 / 12	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
	17 / 17	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	3.8 / 3.8	3.1 / 3.1	No	No
Doheny Dr. and Santa Monica Blvd.	8 / 8	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	12 / 8	0.0 / 0.0	3.4 / 3.4	2.9 / 2.9	No	No
	8 / 8	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
	8 / 12	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
Doheny Dr. and Beverly Blvd.	8 / 12	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
	8 / 8	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No
	17 / 17	0.1 / 0.0	4.1 / 4.2	3.4 / 3.4	No	No
	21 / 21	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
Foothill Rd. and Santa Monica Blvd.	13 / 13	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
	14 / 14	0.1 / 0.0	3.7 / 3.8	3.1 / 3.1	No	No
	12 / 14	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	12 / 12	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
Foothill Rd. and Santa Monica Blvd.	14 / 12	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	4.5 / 4.5	3.6 / 3.6	No	No
	8 / 8	0.0 / 0.0	4.4 / 4.4	3.6 / 3.6	No	No
	7 / 7	0.0 / 0.0	4.3 / 4.3	3.5 / 3.5	No	No
	10 / 10	0.0 / 0.0	4.3 / 4.3	3.5 / 3.5	No	No

Source: LSA Associates, Inc., November 2011.

<sup>1</sup> Includes ambient 1-hour concentration of 2.6 ppm and ambient 8-hour concentration of 2.3 ppm. Measured at the 1630 N. Main St., Los Angeles, CA, AQ Station in Los Angeles County.

<sup>2</sup> The State 1-hour standard is 20 ppm and the 8-hour standard is 9 ppm.

AQ = air quality

ppm = parts per million

CO = carbon monoxide

**Table Q: Opening Year (2016) CO Concentrations<sup>1</sup>**

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-Hour/8-Hour (ppm)	Without/With Project 1-Hour CO Concentration (ppm)	Without/With Project 8-Hour CO Concentration (ppm)	Exceeds State Standards <sup>2</sup>	
					1-Hour	8-Hour
La Cienega Blvd. and Santa Monica Blvd.	17 / 17	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No
	17 / 17	0.1 / 0.1	4.0 / 4.1	3.3 / 3.4	No	No
	21 / 21	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
	17 / 17	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
La Cienega Blvd. and Melrose Ave.	15 / 15	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
	15 / 15	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
	17 / 17	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
	15 / 15	0.1 / 0.0	3.7 / 3.8	3.1 / 3.1	No	No
San Vicente Blvd. and Melrose Ave.	14 / 14	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	14 / 14	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	14 / 14	0.1 / 0.1	3.5 / 3.6	2.9 / 3.0	No	No
	14 / 14	0.0 / 0.0	3.5 / 3.5	2.9 / 2.9	No	No
Robertson Blvd. and Santa Monica Blvd.	12 / 12	0.0 / 0.0	4.1 / 4.1	3.4 / 3.4	No	No
	17 / 17	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
	15 / 10	0.0 / 0.0	3.9 / 3.9	3.2 / 3.2	No	No
	10 / 15	0.1 / 0.1	3.8 / 3.9	3.1 / 3.2	No	No
Robertson Blvd. and Melrose Ave.	8 / 8	0.1 / 0.1	3.5 / 3.6	2.9 / 3.0	No	No
	14 / 14	0.1 / 0.0	3.4 / 3.5	2.9 / 2.9	No	No
	8 / 8	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
	8 / 8	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
Robertson Blvd. and Beverly Blvd.	14 / 14	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	12 / 12	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	12 / 12	0.0 / 0.0	3.5 / 3.5	2.9 / 2.9	No	No
	14 / 14	0.0 / 0.0	3.5 / 3.5	2.9 / 2.9	No	No
Doheny Dr. and Sunset Blvd.	14 / 14	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	14 / 14	0.0 / 0.0	3.7 / 3.7	3.1 / 3.1	No	No
	8 / 8	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	8 / 8	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
Doheny Dr. and Elevado Ave.	8 / 12	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
	8 / 12	0.1 / 0.1	3.3 / 3.4	2.8 / 2.9	No	No
	8 / 8	0.0 / 0.0	3.3 / 3.3	2.8 / 2.8	No	No
	12 / 8	0.0 / 0.0	3.3 / 3.3	2.8 / 2.8	No	No
Doheny Dr. and Santa Monica Blvd.	17 / 8	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No
	8 / 17	0.1 / 0.0	4.1 / 4.2	3.4 / 3.4	No	No
	21 / 13	0.0 / 0.0	4.0 / 4.0	3.3 / 3.3	No	No
	13 / 21	0.1 / 0.1	3.9 / 4.0	3.2 / 3.3	No	No
Doheny Dr. and Beverly Blvd.	12 / 14	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	14 / 12	0.0 / 0.0	3.6 / 3.6	3.0 / 3.0	No	No
	14 / 12	0.1 / 0.1	3.5 / 3.6	2.9 / 3.0	No	No
	12 / 14	0.1 / 0.1	3.5 / 3.6	2.9 / 3.0	No	No
Foothill Rd. and Santa Monica Blvd.	14 / 14	0.1 / 0.1	4.3 / 4.4	3.5 / 3.6	No	No
	7 / 8	0.1 / 0.1	4.2 / 4.3	3.4 / 3.5	No	No
	8 / 7	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No
	10 / 10	0.0 / 0.0	4.2 / 4.2	3.4 / 3.4	No	No

Source: LSA Associates, Inc., March 2012.

<sup>1</sup> Includes ambient 1-hour concentration of 2.6 ppm and ambient 8-hour concentration of 2.3 ppm. Measured at the 1630 N. Main St., Los Angeles, CA, AQ Station in Los Angeles County.

<sup>2</sup> The State 1-hour standard is 20 ppm and the 8-hour standard is 9 ppm.

AQ = air quality ppm = parts per million

CO = carbon monoxide



## 5.5 DIESEL TOXICS ANALYSIS

The following discussion of diesel toxics evaluates two issues: (1) the general health risks of air toxics and the current contribution of diesel trucks to those risks; and (2) the project's potential air toxics impact.

Chemicals surround us all our lives. Some are beneficial; some are harmful. Some are necessary for good health in small amounts, but harmful in larger amounts. Determining how hazardous a substance is depends on many factors, including the amount, how it enters the body, how long the exposure is, and what organs in the body are affected. One major way these substances enter the body is through inhalation. The form can be either gas or particulate. While many gases are harmful, very small particles penetrate deep into the lungs, contributing to a range of health problems. Exhaust from diesel engines is a major source of these airborne particles. California's Office of Environmental Health Hazard Assessment (OEHHA) has determined that long-term exposure to diesel exhaust particulate poses the highest cancer risk of any toxic air contaminant it has evaluated. Fortunately, improvements to diesel fuel and diesel engines have already reduced emissions of some of the pollutants associated with diesel exhaust. The ARB has developed a Diesel Risk Reduction Plan which, when fully implemented, will result in an 85 percent reduction in particle emissions from diesel equipment by 2020 (compared to 2000 levels).

### 5.5.1 Mobile Source Health Risk Impacts

The only toxic air pollution emissions in any significant quantity associated with the construction of the project occur from diesel-powered equipment exhaust. Other toxic substances potentially used on site would be controlled through compliance with State and federal handling regulations. The OEHHA currently describes the health risk from diesel exhaust entirely in terms of the amount of particulate, or PM<sub>10</sub>, that is emitted. Currently, the health risk associated with diesel exhaust PM<sub>10</sub> only has a carcinogenic and chronic effect; no short-term acute effect is recognized.

Health risks are determined by defining the exposure of sensitive receptors, such as homes, schools, hospitals, etc., to toxic air contaminants. Thus, there is a relationship between proximity of the source of the emissions to the sensitive receptor. The nature of the mobile equipment used in construction operations is that it only operates in one location a short time, relative to the length of time required for carcinogenic and chronic health impacts (usually six months or less). The anticipated level of on-site diesel-powered equipment use would, even on the most intense day, emit less than 4.5 lbs/day of PM<sub>10</sub> (see Table K, Exhaust PM<sub>10</sub> during Grading & Excavation). A screening health risk assessment was performed using a weighted average PM<sub>10</sub> emission rate of 2.7 lbs/day<sup>1</sup>, and assuming the mobile equipment operates for 250 days per year and a 33-month total period (see Appendix D). Following OEHHA health risk calculation techniques,<sup>2</sup> potential impacts from air toxics associated with diesel exhaust during proposed project construction are shown in Table R. The cancer health risk is highest (2.3 in 1 million)

<sup>1</sup> Weighted average determined by assuming peak daily rate occurs for 10 percent of the construction period and the rest of the time, the daily emissions rate is 50 percent of the peak.

<sup>2</sup> OEHHA, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, August 2003, Appendix D, *Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Vehicles*.

**Table R: Screening Health Risk Results for Construction**

Distance (m)	Inhalation Cancer Risk No. in a Million	Inhalation Chronic Risk Factor
60	2.1	0.047
70	2.2	0.049
80	2.3	0.050
90	2.1	0.046
100	1.7	0.038
<b>Health Risk Thresholds</b>	<b>10</b>	<b>1.0</b>

Source: LSA Associates, Inc., September 2012.

m = meters

at 80 m (approximately 260 ft); however, it is still far below the cancer threshold of 10 in 1 million. The chronic health risk of 0.044 is also far below the chronic threshold of 1.0. Therefore, the health risks to nearby residents from project-related construction operations would be less than significant.

Similarly, for the long-term operations of the project, the only toxic air pollution emissions in any significant quantity would occur from diesel-powered equipment exhaust. A screening level analysis was performed for these emissions, assuming that up to 20 medium-sized trucks and 35 semi-trailer-sized trucks will make deliveries per week to the site, a conservative estimate based on the number of commercial operations planned for the project site.

**Acute Emission Impacts.** There are no existing sources of significant emissions of toxic air pollutants that have short-term acute health effects in the project vicinity. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (ARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute noncancer health risk guidance value. While the lung is a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure information to establish a short-term noncancer health risk guidance value for respiratory effects.

**Carcinogenic and Chronic Impacts.** The results of the health risk assessment are shown in Table S. The health risks are far below the cancer threshold of 10 in 1 million and the chronic threshold of 1.0; therefore, the health risks from long-term operations would be less than significant.

**Table S: Screening Health Risk Results for Long-Term Operations**

<b>Distance (m)</b>	<b>Inhalation Cancer Risk No. in a Million</b>	<b>Inhalation Chronic Risk Factor</b>
60	0.16	0.00010
70	0.14	0.00009
80	0.13	0.00008
90	0.12	0.000073
100	0.10	0.000065
<b>Health Risk Thresholds</b>	<b>10</b>	<b>1.0</b>

Source: LSA Associates, Inc., September 2012.  
m = meters

While the above modeling and comparison to the EPA threshold addresses the emissions source of the project-related truck operations, the average California carcinogenic inhalation health risk from all sources of exposure is currently 701 in 1 million. In September 2000, the ARB approved the comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled engines and vehicles. The goal of the Plan is to reduce diesel PM emissions and the associated health risk by 85 percent in 2020.

## 5.6 AIR QUALITY MANAGEMENT PLAN CONSISTENCY

In order to accurately assess the environmental impacts as a result of new or renovated developments, environmental pollution and population growth are projected for future scenarios. The proposed project is a mixed-use development. Population growth associated with the proposed project would be within the City's General Plan projection. The project is consistent with the adopted AQMP.

## 5.7 CUMULATIVE IMPACTS

The cumulative study area for air quality analysis is the SCAB, and air quality conformance is overseen by the SCAQMD. Each project in the SCAB is required to comply with SCAQMD rules and regulations. The population growth associated with the proposed project is consistent with the projections in the City's General Plan and therefore has been accommodated in the adopted AQMP for the SCAB. Other projects in the SCAB are required to be consistent with the AQMP. The impact analysis provided in this study determined that the proposed project would not result in a significant health risk for any of the analyzed pollutants.

As shown previously in Table K, construction emissions would not exceed any of the SCAQMD thresholds. Therefore, implementation of the proposed project would not contribute to significant short-term cumulative adverse air quality impacts, and no mitigation would be required. With adherence to standard conditions, including SCAQMD Rules 402 and 403, the project's contribution to short-term cumulative construction air quality impacts would be less than cumulatively significant. Additionally, maximum emissions from the proposed project during operation would not result in a cumulative air quality impact that would exceed applicable federal or State AAQA.

## 5.8 STANDARD CONDITIONS

### 5.8.1 Construction

**SCAQMD Rules.** The project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM<sub>10</sub> component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

#### **SCAQMD Rule 403 Measures.**

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 ft of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- Pave construction access roads at least 100 ft onto the site from main road.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

#### **SCAQMD CEQA Handbook.**

##### A. Dust suppression measures:

- Revegetate disturbed areas as quickly as possible.
- All excavating and grading operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 mph.
- All streets shall be swept once per day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water).
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash trucks and any equipment leaving the site each trip.
- All on-site roads shall be paved as soon as feasible, watered periodically, or chemically stabilized.
- The area disturbed by clearing, grading, earthmoving, or excavation operations shall be minimized at all times.

- B. The construction contractor shall select the construction equipment used on site based on low-emission factors and high energy efficiency. The construction contractor shall ensure that construction grading plans include a statement that all construction equipment will be tuned and maintained in accordance with the manufacturer's specifications.
- C. The construction contractor shall utilize electric or diesel-powered equipment in lieu of gasoline-powered engines where feasible.
- D. The construction contractor shall ensure that construction grading plans include a statement that work crews will shut off equipment when not in use. During smog season (May through October), the overall length of the construction period will be extended, thereby decreasing the size of the area prepared each day, to minimize vehicles and equipment operating at the same time.
- E. The construction contractor shall time the construction activities so as to not interfere with peak-hour traffic and minimize obstruction of through traffic lanes adjacent to the site; if necessary, a flagperson shall be retained to maintain safety adjacent to existing roadways.
- F. The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew.
- G. Compliance with the SCAQMD Rule 1113 on the use of architectural coatings should be implemented. Emissions associated with architectural coatings would be reduced by complying with these rules and regulations, which include using pre-coated/natural-colored building materials, and using water-based or low-VOC coating.

## **5.8.2 Operation**

The proposed project will be required to comply with Title 24 of the California Code of Regulations (CCR) established by the CEC regarding energy conservation standards. The project applicant shall incorporate the following in building plans:

- Solar or low-emission water heaters shall be used with combined space/water heater units.
- Double-paned glass or window treatment for energy conservation shall be used in all exterior windows.

## **5.9 MITIGATION MEASURES**

### **5.9.1 Construction**

With incorporation of the Standard Conditions listed above, the project's construction air quality impacts would be less than significant. No mitigation measures are required.

### **5.9.2 Operations**

Impacts related to project operational emissions would be less than significant. No mitigation measures are required.

### **5.9.3 Global Climate Change**

Impacts related to project GHG emissions would be less than significant. No mitigation measures are required.

## 6.0 REFERENCES

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- . 2013 California Greenhouse Gas 2000–2011 Inventory.
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- California Energy Commission, *The Role of Land Use in Meeting California's Energy and Climate Change Goals*, August 2007.
- California State CEQA Guidelines, 2012.
- Caltrans. Transportation Project-Level Carbon Monoxide Protocol, 1997.
- LSA Associates, Inc., *Traffic Impact Analysis*, November 2013.
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- OEHHA, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, August 2012, Appendix D, *Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Vehicles*.
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State of California, Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*, (2008).

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**APPENDIX A**  
**CALEEMOD MODEL PRINTOUTS**

## Melrose Triangle - Existing

### Los Angeles-South Coast County, Summer

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	23.47	1000sqft	2.00	23,470.00	0
Strip Mall	38.74	1000sqft	1.05	38,740.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2012
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acreages adjusted to match total site area of 3.05 acres.
- Construction Phase - Existing scenario, no construction.
- Grading -
- Vehicle Trips - Set the weekday trip rates to match the traffic study peak day rates, left the Saturday and Sunday rates at the CalEEMod defaults.
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Vehicle Emission Factors -
- Vehicle Emission Factors -

Vehicle Emission Factors -

Landscape Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	0.00
tblLandUse	LotAcreage	0.54	2.00
tblLandUse	LotAcreage	0.89	1.05
tblProjectCharacteristics	OperationalYear	2014	2012
tblVehicleTrips	WD_TR	11.01	18.62

## 2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 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	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
Energy	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438
Mobile	10.5742	22.7527	103.8078	0.1509	9.9126	0.4967	10.4093	2.6494	0.4557	3.1050		14,543.3561	14,543.3561	0.8100		14,560.3659
<b>Total</b>	<b>12.2112</b>	<b>22.8394</b>	<b>103.8874</b>	<b>0.1514</b>	<b>9.9126</b>	<b>0.5033</b>	<b>10.4159</b>	<b>2.6494</b>	<b>0.4623</b>	<b>3.1116</b>		<b>14,647.2811</b>	<b>14,647.2811</b>	<b>0.8120</b>	<b>1.9100e-003</b>	<b>14,664.9242</b>

**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	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
Energy	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438
Mobile	10.5742	22.7527	103.8078	0.1509	9.9126	0.4967	10.4093	2.6494	0.4557	3.1050		14,543.3561	14,543.3561	0.8100		14,560.3659
<b>Total</b>	<b>12.2112</b>	<b>22.8394</b>	<b>103.8874</b>	<b>0.1514</b>	<b>9.9126</b>	<b>0.5033</b>	<b>10.4159</b>	<b>2.6494</b>	<b>0.4623</b>	<b>3.1116</b>		<b>14,647.2811</b>	<b>14,647.2811</b>	<b>0.8120</b>	<b>1.9100e-003</b>	<b>14,664.9242</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	9	20.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Clean Paved Roads

## 4.0 Operational Detail - Mobile

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### 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					
Unmitigated	10.5742	22.7527	103.8078	0.1509	9.9126	0.4967	10.4093	2.6494	0.4557	3.1050		14,543.3561	14,543.3561	0.8100		14,560.3659
Mitigated	10.5742	22.7527	103.8078	0.1509	9.9126	0.4967	10.4093	2.6494	0.4557	3.1050		14,543.3561	14,543.3561	0.8100		14,560.3659

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	437.01	55.62	23.00	1,041,766	1,041,766
Strip Mall	1,716.96	1,628.63	791.46	2,991,117	2,991,117
Total	2,153.97	1,684.25	814.46	4,032,883	4,032,883

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.535045	0.059083	0.179072	0.130121	0.038581	0.006272	0.014726	0.025593	0.002432	0.003201	0.003684	0.000551	0.001641

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438
NaturalGas Unmitigated	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438

#### 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	702.814	7.5800e-003	0.0689	0.0579	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003		82.6840	82.6840	1.5800e-003	1.5200e-003	83.1872
Strip Mall	180.433	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.2274	21.2274	4.1000e-004	3.9000e-004	21.3566
<b>Total</b>		<b>9.5300e-003</b>	<b>0.0866</b>	<b>0.0727</b>	<b>5.2000e-004</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>103.9114</b>	<b>103.9114</b>	<b>1.9900e-003</b>	<b>1.9100e-003</b>	<b>104.5438</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Strip Mall	0.180433	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.2274	21.2274	4.1000e-004	3.9000e-004	21.3566
General Office Building	0.702814	7.5800e-003	0.0689	0.0579	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003		82.6840	82.6840	1.5800e-003	1.5200e-003	83.1872
<b>Total</b>		<b>9.5300e-003</b>	<b>0.0866</b>	<b>0.0727</b>	<b>5.2000e-004</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>103.9114</b>	<b>103.9114</b>	<b>1.9900e-003</b>	<b>1.9100e-003</b>	<b>104.5438</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day								lb/day							
Unmitigated	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
Mitigated	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2000e-004	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
<b>Total</b>	<b>1.6275</b>	<b>7.0000e-005</b>	<b>6.8100e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0136</b>	<b>0.0136</b>	<b>4.0000e-005</b>		<b>0.0145</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2000e-004	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145



Total	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
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## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## Melrose Triangle - Existing

### Los Angeles-South Coast County, Winter

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	23.47	1000sqft	2.00	23,470.00	0
Strip Mall	38.74	1000sqft	1.05	38,740.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2012
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acreages adjusted to match total site area of 3.05 acres.
- Construction Phase - Existing scenario, no construction.
- Grading -
- Vehicle Trips - Set the weekday trip rates to match the traffic study peak day rates, left the Saturday and Sunday rates at the CalEEMod defaults.
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Vehicle Emission Factors -
- Vehicle Emission Factors -

Vehicle Emission Factors -

Landscape Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	0.00
tblLandUse	LotAcreage	0.54	2.00
tblLandUse	LotAcreage	0.89	1.05
tblProjectCharacteristics	OperationalYear	2014	2012
tblVehicleTrips	WD_TR	11.01	18.62

## 2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 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	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
Energy	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438
Mobile	11.3200	24.0089	105.6547	0.1441	9.9126	0.5020	10.4145	2.6494	0.4605	3.1098		13,882.678	13,882.678	0.8107		13,899.7010
<b>Total</b>	<b>12.9570</b>	<b>24.0956</b>	<b>105.7342</b>	<b>0.1446</b>	<b>9.9126</b>	<b>0.5086</b>	<b>10.4211</b>	<b>2.6494</b>	<b>0.4671</b>	<b>3.1164</b>		<b>13,986.6018</b>	<b>13,986.6018</b>	<b>0.8127</b>	<b>1.9100e-003</b>	<b>14,004.2593</b>

**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	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
Energy	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438
Mobile	11.3200	24.0089	105.6547	0.1441	9.9126	0.5020	10.4145	2.6494	0.4605	3.1098		13,882.678	13,882.678	0.8107		13,899.7010
<b>Total</b>	<b>12.9570</b>	<b>24.0956</b>	<b>105.7342</b>	<b>0.1446</b>	<b>9.9126</b>	<b>0.5086</b>	<b>10.4211</b>	<b>2.6494</b>	<b>0.4671</b>	<b>3.1164</b>		<b>13,986.6018</b>	<b>13,986.6018</b>	<b>0.8127</b>	<b>1.9100e-003</b>	<b>14,004.2593</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2014	12/31/2013	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	9	20.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Clean Paved Roads

### 4.0 Operational Detail - Mobile

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#### 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					
Unmitigated	11.3200	24.0089	105.6547	0.1441	9.9126	0.5020	10.4145	2.6494	0.4605	3.1098		13,882.6768	13,882.6768	0.8107		13,899.7010
Mitigated	11.3200	24.0089	105.6547	0.1441	9.9126	0.5020	10.4145	2.6494	0.4605	3.1098		13,882.6768	13,882.6768	0.8107		13,899.7010

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	437.01	55.62	23.00	1,041,766	1,041,766
Strip Mall	1,716.96	1,628.63	791.46	2,991,117	2,991,117
Total	2,153.97	1,684.25	814.46	4,032,883	4,032,883

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.535045	0.059083	0.179072	0.130121	0.038581	0.006272	0.014726	0.025593	0.002432	0.003201	0.003684	0.000551	0.001641

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438
NaturalGas Unmitigated	9.5300e-003	0.0866	0.0727	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9114	103.9114	1.9900e-003	1.9100e-003	104.5438

#### 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	702.814	7.5800e-003	0.0689	0.0579	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003		82.6840	82.6840	1.5800e-003	1.5200e-003	83.1872
Strip Mall	180.433	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.2274	21.2274	4.1000e-004	3.9000e-004	21.3566
<b>Total</b>		<b>9.5300e-003</b>	<b>0.0866</b>	<b>0.0727</b>	<b>5.2000e-004</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>103.9114</b>	<b>103.9114</b>	<b>1.9900e-003</b>	<b>1.9100e-003</b>	<b>104.5438</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Strip Mall	0.180433	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.2274	21.2274	4.1000e-004	3.9000e-004	21.3566
General Office Building	0.702814	7.5800e-003	0.0689	0.0579	4.1000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003		82.6840	82.6840	1.5800e-003	1.5200e-003	83.1872
<b>Total</b>		<b>9.5300e-003</b>	<b>0.0866</b>	<b>0.0727</b>	<b>5.2000e-004</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>6.5800e-003</b>	<b>6.5800e-003</b>		<b>103.9114</b>	<b>103.9114</b>	<b>1.9900e-003</b>	<b>1.9100e-003</b>	<b>104.5438</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day								lb/day							
Unmitigated	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
Mitigated	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2000e-004	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
<b>Total</b>	<b>1.6275</b>	<b>7.0000e-005</b>	<b>6.8100e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0136</b>	<b>0.0136</b>	<b>4.0000e-005</b>		<b>0.0145</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.2000e-004	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145



Total	1.6275	7.0000e-005	6.8100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0136	0.0136	4.0000e-005		0.0145
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## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## Melrose Triangle - Existing

### Los Angeles-South Coast County, Annual

#### 1.0 Project Characteristics

##### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	23.47	1000sqft	2.00	23,470.00	0
Strip Mall	38.74	1000sqft	1.05	38,740.00	0

##### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2012
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

##### 1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acreages adjusted to match total site area of 3.05 acres.
- Construction Phase - Existing scenario, no construction.
- Grading -
- Vehicle Trips - Set the weekday trip rates to match the traffic study peak day rates, left the Saturday and Sunday rates at the CalEEMod defaults.
- Construction Off-road Equipment Mitigation -
- Mobile Land Use Mitigation -
- Area Mitigation -
- Vehicle Emission Factors -
- Vehicle Emission Factors -

Vehicle Emission Factors -

Landscape Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	0.00
tblLandUse	LotAcreage	0.54	2.00
tblLandUse	LotAcreage	0.89	1.05
tblProjectCharacteristics	OperationalYear	2014	2012
tblVehicleTrips	WD_TR	11.01	18.62

## 2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 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	0.2970	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5400e-003	1.5400e-003	0.0000	0.0000	1.6500e-003
Energy	1.7400e-003	0.0158	0.0133	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	534.4566	534.4566	0.0126	2.8400e-003	535.6014
Mobile	1.6946	3.8532	16.7070	0.0229	1.5263	0.0784	1.6047	0.4086	0.0719	0.4805	0.0000	2,002.7806	2,002.7806	0.1156	0.0000	2,005.2079
Waste						0.0000	0.0000		0.0000	0.0000	12.6890	0.0000	12.6890	0.7499	0.0000	28.4368
Water						0.0000	0.0000		0.0000	0.0000	2.2338	77.7658	79.9996	0.2313	5.8000e-003	86.6534

Total	1.9933	3.8690	16.7211	0.0230	1.5263	0.0796	1.6059	0.4086	0.0731	0.4817	14.9228	2,615.004 6	2,629.9273	1.1093	8.6400e- 003	2,655.901 1
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### 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	0.2970	1.0000e- 005	8.5000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5400e- 003	1.5400e- 003	0.0000	0.0000	1.6500e- 003
Energy	1.7400e- 003	0.0158	0.0133	9.0000e- 005		1.2000e- 003	1.2000e- 003		1.2000e- 003	1.2000e- 003	0.0000	534.4566	534.4566	0.0126	2.8400e- 003	535.6014
Mobile	1.6946	3.8532	16.7070	0.0229	1.5263	0.0784	1.6047	0.4086	0.0719	0.4805	0.0000	2,002.780 6	2,002.7806	0.1156	0.0000	2,005.207 9
Waste						0.0000	0.0000		0.0000	0.0000	12.6890	0.0000	12.6890	0.7499	0.0000	28.4368
Water						0.0000	0.0000		0.0000	0.0000	2.2338	77.7658	79.9996	0.2312	5.7900e- 003	86.6498
<b>Total</b>	<b>1.9933</b>	<b>3.8690</b>	<b>16.7211</b>	<b>0.0230</b>	<b>1.5263</b>	<b>0.0796</b>	<b>1.6059</b>	<b>0.4086</b>	<b>0.0731</b>	<b>0.4817</b>	<b>14.9228</b>	<b>2,615.004 6</b>	<b>2,629.9273</b>	<b>1.1093</b>	<b>8.6300e- 003</b>	<b>2,655.897 6</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	9	20.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Clean Paved Roads

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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



Category	tons/yr									MT/yr						
NaturalGas Mitigated	1.7400e-003	0.0158	0.0133	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.2037	17.2037	3.3000e-004	3.2000e-004	17.3084
NaturalGas Unmitigated	1.7400e-003	0.0158	0.0133	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.2037	17.2037	3.3000e-004	3.2000e-004	17.3084
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	517.2529	517.2529	0.0122	2.5300e-003	518.2930
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	517.2529	517.2529	0.0122	2.5300e-003	518.2930

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	256527	1.3800e-003	0.0126	0.0106	8.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	13.6893	13.6893	2.6000e-004	2.5000e-004	13.7726
Strip Mall	65858	3.6000e-004	3.2300e-003	2.7100e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5144	3.5144	7.0000e-005	6.0000e-005	3.5358
<b>Total</b>		<b>1.7400e-003</b>	<b>0.0158</b>	<b>0.0133</b>	<b>1.0000e-004</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>17.2037</b>	<b>17.2037</b>	<b>3.3000e-004</b>	<b>3.1000e-004</b>	<b>17.3084</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	256527	1.3800e-003	0.0126	0.0106	8.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	13.6893	13.6893	2.6000e-004	2.5000e-004	13.7726
Strip Mall	65858	3.6000e-004	3.2300e-003	2.7100e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5144	3.5144	7.0000e-005	6.0000e-005	3.5358

Total		1.7400e-003	0.0158	0.0133	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.2037	17.2037	3.3000e-004	3.1000e-004	17.3084
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### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	341019	189.9345	4.4900e-003	9.3000e-004	190.3164
Strip Mall	587686	327.3184	7.7300e-003	1.6000e-003	327.9766
<b>Total</b>		<b>517.2529</b>	<b>0.0122</b>	<b>2.5300e-003</b>	<b>518.2930</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	341019	189.9345	4.4900e-003	9.3000e-004	190.3164
Strip Mall	587686	327.3184	7.7300e-003	1.6000e-003	327.9766
<b>Total</b>		<b>517.2529</b>	<b>0.0122</b>	<b>2.5300e-003</b>	<b>518.2930</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area



	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2970	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5400e-003	1.5400e-003	0.0000	0.0000	1.6500e-003
Unmitigated	0.2970	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5400e-003	1.5400e-003	0.0000	0.0000	1.6500e-003

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5400e-003	1.5400e-003	0.0000	0.0000	1.6500e-003
<b>Total</b>	<b>0.2970</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5400e-003</b>	<b>1.5400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6500e-003</b>

### Mitigated

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

Architectural Coating	0.0721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2248					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5400e-003	1.5400e-003	0.0000	0.0000	1.6500e-003
<b>Total</b>	<b>0.2970</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5400e-003</b>	<b>1.5400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6500e-003</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	79.9996	0.2313	5.8000e-003	86.6534
Mitigated	79.9996	0.2312	5.7900e-003	86.6498

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	4.17141 / 2.55667	47.3956	0.1370	3.4300e-003	51.3376
Strip Mall	2.86957 / 1.75877	32.6040	0.0943	2.3600e-003	35.3158
<b>Total</b>		<b>79.9996</b>	<b>0.2313</b>	<b>5.7900e-003</b>	<b>86.6534</b>

## Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	4.17141 / 2.55667	47.3956	0.1370	3.4300e-003	51.3355
Strip Mall	2.86957 / 1.75877	32.6040	0.0942	2.3600e-003	35.3144
<b>Total</b>		<b>79.9996</b>	<b>0.2312</b>	<b>5.7900e-003</b>	<b>86.6498</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.6890	0.7499	0.0000	28.4368
Unmitigated	12.6890	0.7499	0.0000	28.4368

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	21.83	4.4313	0.2619	0.0000	9.9308
Strip Mall	40.68	8.2577	0.4880	0.0000	18.5060
<b>Total</b>		<b>12.6890</b>	<b>0.7499</b>	<b>0.0000</b>	<b>28.4368</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	21.83	4.4313	0.2619	0.0000	9.9308
Strip Mall	40.68	8.2577	0.4880	0.0000	18.5060
<b>Total</b>		<b>12.6890</b>	<b>0.7499</b>	<b>0.0000</b>	<b>28.4368</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Vegetation**

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## Melrose Triangle

### Los Angeles-South Coast County, Summer

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	137.10	1000sqft	1.00	137,100.00	0
User Defined Commercial	16.40	User Defined Unit	0.00	16,400.00	0
User Defined Commercial	12.30	User Defined Unit	0.00	12,300.00	0
Enclosed Parking with Elevator	923.00	Space	0.00	369,200.00	0
Quality Restaurant	8.20	1000sqft	0.19	8,200.00	0
Apartments High Rise	76.00	Dwelling Unit	0.82	76,000.00	217
Strip Mall	45.11	1000sqft	1.04	45,110.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2014
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreages adjusted to match total site area of 3.05 acres, parking is all subterranean.

Construction Phase - Construction schedule estimated based on a 33-month total and 9-month excavation for 4-story subterranean parking structure.

Off-road Equipment -

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Excavating 4 stories down will be equipment intensive.

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Trips and VMT - Haul trips set to 34,500 per the traffic study, trip lengths set to match previous analysis.

Demolition - Demolition area set as used in previous air quality analysis (2008).

Grading -

Architectural Coating - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Vehicle Trips - Set the weekday trip rates to match the traffic study peak day rates, left the Saturday and Sunday rates at the CalEEMod defaults. Set the Art Gallery & Design Showrooms (User Defined Commercial) all to match the traffic study peak day rates.

Area Coating - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Energy Use - Moved all energy use from nontitle-24 to Title-24. Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall.

Water And Wastewater - Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall. Set outdoor water use to zero for all but the strip mall since other land uses will not have landscaping.

Solid Waste - Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall. Set the office waste generation rate to match the strip mall since there will be simple offices.

Construction Off-road Equipment Mitigation - The only dust control implemented is what is mandated by SCAQMD Rule 403, all diesel equipment will meet EPA Tier 2 level.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Landscape Equipment -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50



tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	18.00	88.00
tblConstructionPhase	NumDays	230.00	411.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	175.00
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	5.00	20.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24NG	1,718.92	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	T24E	246.66	2,801.00
tblEnergyUse	T24E	5.62	10.24
tblEnergyUse	T24E	3.92	4.11
tblEnergyUse	T24E	9.91	38.07
tblEnergyUse	T24E	4.90	8.13
tblEnergyUse	T24E	0.00	8.13
tblEnergyUse	T24NG	8,201.59	9,921.00
tblEnergyUse	T24NG	10.54	10.93
tblEnergyUse	T24NG	45.23	559.00
tblEnergyUse	T24NG	1.21	1.70
tblEnergyUse	T24NG	0.00	1.70
tblGrading	MaterialExported	0.00	172,500.00
tblLandUse	LandUseSquareFeet	0.00	12,300.00



tblLandUse	LandUseSquareFeet	0.00	16,400.00
tblLandUse	LotAcreage	3.15	1.00
tblLandUse	LotAcreage	1.23	0.82
tblLandUse	LotAcreage	8.31	0.00
tblOffRoadEquipment	HorsePower	226.00	208.00
tblOffRoadEquipment	HorsePower	162.00	157.00
tblOffRoadEquipment	HorsePower	89.00	149.00
tblOffRoadEquipment	HorsePower	174.00	162.00
tblOffRoadEquipment	HorsePower	125.00	89.00
tblOffRoadEquipment	HorsePower	130.00	82.00
tblOffRoadEquipment	HorsePower	80.00	84.00
tblOffRoadEquipment	HorsePower	255.00	358.00
tblOffRoadEquipment	HorsePower	255.00	358.00
tblOffRoadEquipment	HorsePower	255.00	358.00
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tblOffRoadEquipment	HorsePower	97.00	75.00
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tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
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tblOffRoadEquipment	LoadFactor	0.29	0.43
tblOffRoadEquipment	LoadFactor	0.38	0.57
tblOffRoadEquipment	LoadFactor	0.20	0.30
tblOffRoadEquipment	LoadFactor	0.41	0.61
tblOffRoadEquipment	LoadFactor	0.42	0.62
tblOffRoadEquipment	LoadFactor	0.36	0.53
tblOffRoadEquipment	LoadFactor	0.38	0.56
tblOffRoadEquipment	LoadFactor	0.40	0.59
tblOffRoadEquipment	LoadFactor	0.40	0.59
tblOffRoadEquipment	LoadFactor	0.40	0.59

tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.42	0.62
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	47.37
tblTripsAndVMT	HaulingTripNumber	21,563.00	34,500.00
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.78	2.81
tblVehicleEF	HHD	2.26	1.89
tblVehicleEF	HHD	70.66	60.76
tblVehicleEF	HHD	576.70	566.61

tblVehicleEF	HHD	1,704.18	1,665.81
tblVehicleEF	HHD	67.83	58.19
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	5.80	4.87
tblVehicleEF	HHD	8.09	6.24
tblVehicleEF	HHD	3.99	3.76
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	5.3500e-003	2.6460e-003
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6480e-003	8.6630e-003
tblVehicleEF	HHD	0.14	0.09
tblVehicleEF	HHD	4.2300e-003	2.1680e-003
tblVehicleEF	HHD	3.0220e-003	1.9170e-003
tblVehicleEF	HHD	0.19	0.10
tblVehicleEF	HHD	0.52	0.50
tblVehicleEF	HHD	1.9270e-003	1.3190e-003
tblVehicleEF	HHD	0.32	0.26
tblVehicleEF	HHD	0.74	0.44
tblVehicleEF	HHD	2.81	2.01
tblVehicleEF	HHD	5.5860e-003	5.6020e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.8850e-003	1.6190e-003
tblVehicleEF	HHD	3.0220e-003	1.9170e-003
tblVehicleEF	HHD	0.19	0.10
tblVehicleEF	HHD	0.59	0.57
tblVehicleEF	HHD	1.9270e-003	1.3190e-003

tblVehicleEF	HHD	0.37	0.30
tblVehicleEF	HHD	0.74	0.44
tblVehicleEF	HHD	3.01	2.15
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.02	2.04
tblVehicleEF	HHD	2.27	1.90
tblVehicleEF	HHD	60.06	49.99
tblVehicleEF	HHD	610.97	600.27
tblVehicleEF	HHD	1,704.18	1,665.81
tblVehicleEF	HHD	67.83	58.19
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	5.98	5.02
tblVehicleEF	HHD	7.65	5.90
tblVehicleEF	HHD	3.83	3.60
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	5.3500e-003	2.6460e-003
tblVehicleEF	HHD	0.02	9.5250e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6480e-003	8.6630e-003
tblVehicleEF	HHD	0.14	0.09
tblVehicleEF	HHD	4.2300e-003	2.1680e-003
tblVehicleEF	HHD	4.7100e-003	2.9810e-003
tblVehicleEF	HHD	0.19	0.11
tblVehicleEF	HHD	0.49	0.47
tblVehicleEF	HHD	3.0260e-003	2.0320e-003
tblVehicleEF	HHD	0.32	0.26

tblVehicleEF	HHD	0.73	0.43
tblVehicleEF	HHD	2.38	1.72
tblVehicleEF	HHD	5.9180e-003	5.9350e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.7050e-003	1.4410e-003
tblVehicleEF	HHD	4.7100e-003	2.9810e-003
tblVehicleEF	HHD	0.19	0.11
tblVehicleEF	HHD	0.56	0.54
tblVehicleEF	HHD	3.0260e-003	2.0320e-003
tblVehicleEF	HHD	0.37	0.30
tblVehicleEF	HHD	0.73	0.43
tblVehicleEF	HHD	2.55	1.84
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.83	3.87
tblVehicleEF	HHD	2.25	1.88
tblVehicleEF	HHD	72.66	62.83
tblVehicleEF	HHD	529.39	520.12
tblVehicleEF	HHD	1,704.18	1,665.81
tblVehicleEF	HHD	67.83	58.19
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	5.54	4.65
tblVehicleEF	HHD	7.95	6.13
tblVehicleEF	HHD	4.03	3.79
tblVehicleEF	HHD	0.03	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.15	0.09
tblVehicleEF	HHD	5.3500e-003	2.6460e-003
tblVehicleEF	HHD	0.03	0.01

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6480e-003	8.6630e-003
tblVehicleEF	HHD	0.14	0.09
tblVehicleEF	HHD	4.2300e-003	2.1680e-003
tblVehicleEF	HHD	3.3810e-003	2.0770e-003
tblVehicleEF	HHD	0.25	0.13
tblVehicleEF	HHD	0.56	0.54
tblVehicleEF	HHD	1.9690e-003	1.3280e-003
tblVehicleEF	HHD	0.32	0.26
tblVehicleEF	HHD	0.79	0.47
tblVehicleEF	HHD	2.89	2.07
tblVehicleEF	HHD	5.1280e-003	5.1420e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.9200e-003	1.6530e-003
tblVehicleEF	HHD	3.3810e-003	2.0770e-003
tblVehicleEF	HHD	0.25	0.13
tblVehicleEF	HHD	0.64	0.62
tblVehicleEF	HHD	1.9690e-003	1.3280e-003
tblVehicleEF	HHD	0.37	0.30
tblVehicleEF	HHD	0.79	0.47
tblVehicleEF	HHD	3.11	2.21
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	9.5050e-003
tblVehicleEF	LDA	1.45	1.17
tblVehicleEF	LDA	2.69	2.12
tblVehicleEF	LDA	330.59	306.92
tblVehicleEF	LDA	67.11	62.69
tblVehicleEF	LDA	0.54	0.53
tblVehicleEF	LDA	0.13	0.10
tblVehicleEF	LDA	0.18	0.14

tblVehicleEF	LDA	2.4600e-003	2.1770e-003
tblVehicleEF	LDA	2.9560e-003	2.8640e-003
tblVehicleEF	LDA	2.2430e-003	1.9970e-003
tblVehicleEF	LDA	2.6930e-003	2.6280e-003
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.37	0.31
tblVehicleEF	LDA	0.23	0.17
tblVehicleEF	LDA	3.7180e-003	3.7240e-003
tblVehicleEF	LDA	7.8200e-004	7.7200e-004
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.16	0.14
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.37	0.31
tblVehicleEF	LDA	0.24	0.18
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	9.5050e-003
tblVehicleEF	LDA	1.56	1.26
tblVehicleEF	LDA	2.14	1.68
tblVehicleEF	LDA	345.38	320.65
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tblVehicleEF	LDA	0.54	0.53
tblVehicleEF	LDA	0.11	0.09
tblVehicleEF	LDA	0.17	0.13
tblVehicleEF	LDA	2.4600e-003	2.1770e-003
tblVehicleEF	LDA	2.9560e-003	2.8640e-003
tblVehicleEF	LDA	2.2430e-003	1.9970e-003

tblVehicleEF	LDA	2.6930e-003	2.6280e-003
tblVehicleEF	LDA	0.12	0.09
tblVehicleEF	LDA	0.17	0.14
tblVehicleEF	LDA	0.09	0.07
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.35	0.29
tblVehicleEF	LDA	0.19	0.14
tblVehicleEF	LDA	3.8860e-003	3.8930e-003
tblVehicleEF	LDA	7.7200e-004	7.6500e-004
tblVehicleEF	LDA	0.12	0.09
tblVehicleEF	LDA	0.17	0.14
tblVehicleEF	LDA	0.09	0.07
tblVehicleEF	LDA	0.07	0.05
tblVehicleEF	LDA	0.35	0.29
tblVehicleEF	LDA	0.20	0.15
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.01	9.5050e-003
tblVehicleEF	LDA	1.41	1.13
tblVehicleEF	LDA	2.81	2.21
tblVehicleEF	LDA	325.11	301.84
tblVehicleEF	LDA	67.11	62.69
tblVehicleEF	LDA	0.54	0.53
tblVehicleEF	LDA	0.12	0.10
tblVehicleEF	LDA	0.19	0.14
tblVehicleEF	LDA	2.4600e-003	2.1770e-003
tblVehicleEF	LDA	2.9560e-003	2.8640e-003
tblVehicleEF	LDA	2.2430e-003	1.9970e-003
tblVehicleEF	LDA	2.6930e-003	2.6280e-003
tblVehicleEF	LDA	0.08	0.06
tblVehicleEF	LDA	0.19	0.16



tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.05	0.03
tblVehicleEF	LDA	0.42	0.35
tblVehicleEF	LDA	0.23	0.17
tblVehicleEF	LDA	3.6560e-003	3.6620e-003
tblVehicleEF	LDA	7.8400e-004	7.7400e-004
tblVehicleEF	LDA	0.08	0.06
tblVehicleEF	LDA	0.19	0.16
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.42	0.35
tblVehicleEF	LDA	0.25	0.18
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	3.93	3.26
tblVehicleEF	LDT1	6.39	5.42
tblVehicleEF	LDT1	390.84	368.68
tblVehicleEF	LDT1	78.22	73.87
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.38	0.32
tblVehicleEF	LDT1	0.36	0.31
tblVehicleEF	LDT1	6.1870e-003	5.3800e-003
tblVehicleEF	LDT1	5.8970e-003	5.3140e-003
tblVehicleEF	LDT1	5.6590e-003	4.9510e-003
tblVehicleEF	LDT1	5.3950e-003	4.8940e-003
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.36	0.34
tblVehicleEF	LDT1	0.15	0.14
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	1.30	1.19

tblVehicleEF	LDT1	0.51	0.42
tblVehicleEF	LDT1	4.3170e-003	4.3220e-003
tblVehicleEF	LDT1	9.5500e-004	9.3800e-004
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.36	0.34
tblVehicleEF	LDT1	0.15	0.14
tblVehicleEF	LDT1	0.17	0.13
tblVehicleEF	LDT1	1.30	1.19
tblVehicleEF	LDT1	0.54	0.45
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	4.16	3.47
tblVehicleEF	LDT1	5.09	4.30
tblVehicleEF	LDT1	406.73	383.78
tblVehicleEF	LDT1	78.22	73.87
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.33	0.28
tblVehicleEF	LDT1	0.33	0.29
tblVehicleEF	LDT1	6.1870e-003	5.3800e-003
tblVehicleEF	LDT1	5.8970e-003	5.3140e-003
tblVehicleEF	LDT1	5.6590e-003	4.9510e-003
tblVehicleEF	LDT1	5.3950e-003	4.8940e-003
tblVehicleEF	LDT1	0.31	0.29
tblVehicleEF	LDT1	0.38	0.35
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	0.14	0.10
tblVehicleEF	LDT1	1.20	1.10
tblVehicleEF	LDT1	0.43	0.36
tblVehicleEF	LDT1	4.4950e-003	4.5020e-003
tblVehicleEF	LDT1	9.3300e-004	9.1900e-004

tblVehicleEF	LDT1	0.31	0.29
tblVehicleEF	LDT1	0.38	0.35
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	0.17	0.13
tblVehicleEF	LDT1	1.20	1.10
tblVehicleEF	LDT1	0.46	0.38
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	3.84	3.17
tblVehicleEF	LDT1	6.68	5.67
tblVehicleEF	LDT1	384.95	363.09
tblVehicleEF	LDT1	78.22	73.87
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.37	0.31
tblVehicleEF	LDT1	0.37	0.31
tblVehicleEF	LDT1	6.1870e-003	5.3800e-003
tblVehicleEF	LDT1	5.8970e-003	5.3140e-003
tblVehicleEF	LDT1	5.6590e-003	4.9510e-003
tblVehicleEF	LDT1	5.3950e-003	4.8940e-003
tblVehicleEF	LDT1	0.21	0.19
tblVehicleEF	LDT1	0.42	0.39
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	1.55	1.42
tblVehicleEF	LDT1	0.52	0.43
tblVehicleEF	LDT1	4.2510e-003	4.2550e-003
tblVehicleEF	LDT1	9.6000e-004	9.4200e-004
tblVehicleEF	LDT1	0.21	0.19
tblVehicleEF	LDT1	0.42	0.39
tblVehicleEF	LDT1	0.14	0.14

tblVehicleEF	LDT1	0.17	0.13
tblVehicleEF	LDT1	1.55	1.42
tblVehicleEF	LDT1	0.56	0.46
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	2.09	1.70
tblVehicleEF	LDT2	3.90	3.16
tblVehicleEF	LDT2	468.21	442.97
tblVehicleEF	LDT2	93.61	88.90
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.25	0.20
tblVehicleEF	LDT2	0.38	0.30
tblVehicleEF	LDT2	2.5700e-003	2.2860e-003
tblVehicleEF	LDT2	2.9410e-003	2.8890e-003
tblVehicleEF	LDT2	2.3500e-003	2.1010e-003
tblVehicleEF	LDT2	2.6960e-003	2.6610e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.18	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.60	0.54
tblVehicleEF	LDT2	0.30	0.24
tblVehicleEF	LDT2	5.0750e-003	5.0780e-003
tblVehicleEF	LDT2	1.0680e-003	1.0560e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.18	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.60	0.54
tblVehicleEF	LDT2	0.32	0.25

tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	2.24	1.83
tblVehicleEF	LDT2	3.09	2.50
tblVehicleEF	LDT2	488.41	462.14
tblVehicleEF	LDT2	93.61	88.90
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.22	0.17
tblVehicleEF	LDT2	0.35	0.28
tblVehicleEF	LDT2	2.5700e-003	2.2860e-003
tblVehicleEF	LDT2	2.9410e-003	2.8890e-003
tblVehicleEF	LDT2	2.3500e-003	2.1010e-003
tblVehicleEF	LDT2	2.6960e-003	2.6610e-003
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.19	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.56	0.50
tblVehicleEF	LDT2	0.26	0.20
tblVehicleEF	LDT2	5.2950e-003	5.3000e-003
tblVehicleEF	LDT2	1.0540e-003	1.0450e-003
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.19	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.09	0.07
tblVehicleEF	LDT2	0.56	0.50
tblVehicleEF	LDT2	0.28	0.22
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	2.03	1.65

tblVehicleEF	LDT2	4.08	3.30
tblVehicleEF	LDT2	460.73	435.87
tblVehicleEF	LDT2	93.61	88.90
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.24	0.19
tblVehicleEF	LDT2	0.38	0.30
tblVehicleEF	LDT2	2.5700e-003	2.2860e-003
tblVehicleEF	LDT2	2.9410e-003	2.8890e-003
tblVehicleEF	LDT2	2.3500e-003	2.1010e-003
tblVehicleEF	LDT2	2.6960e-003	2.6610e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.71	0.63
tblVehicleEF	LDT2	0.31	0.25
tblVehicleEF	LDT2	4.9930e-003	4.9960e-003
tblVehicleEF	LDT2	1.0710e-003	1.0590e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.08	0.06
tblVehicleEF	LDT2	0.71	0.63
tblVehicleEF	LDT2	0.33	0.26
tblVehicleEF	LHD1	1.3770e-003	1.3670e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.20	0.20
tblVehicleEF	LHD1	2.19	1.82
tblVehicleEF	LHD1	6.49	5.80

tblVehicleEF	LHD1	8.22	8.05
tblVehicleEF	LHD1	602.22	592.34
tblVehicleEF	LHD1	48.16	47.48
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.34	1.16
tblVehicleEF	LHD1	1.68	1.62
tblVehicleEF	LHD1	3.7400e-004	3.6500e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	8.7210e-003	8.7170e-003
tblVehicleEF	LHD1	8.3690e-003	7.5590e-003
tblVehicleEF	LHD1	1.7820e-003	1.5190e-003
tblVehicleEF	LHD1	3.4400e-004	3.3600e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.1800e-003	2.1790e-003
tblVehicleEF	LHD1	7.7020e-003	6.9580e-003
tblVehicleEF	LHD1	1.6270e-003	1.3900e-003
tblVehicleEF	LHD1	3.3330e-003	3.1330e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9270e-003	1.8880e-003
tblVehicleEF	LHD1	0.15	0.13
tblVehicleEF	LHD1	0.43	0.42
tblVehicleEF	LHD1	0.60	0.54
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.0980e-003	6.1160e-003
tblVehicleEF	LHD1	6.0900e-004	5.9900e-004
tblVehicleEF	LHD1	3.3330e-003	3.1330e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	1.9270e-003	1.8880e-003
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.43	0.42
tblVehicleEF	LHD1	0.64	0.58
tblVehicleEF	LHD1	1.3770e-003	1.3670e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.20	0.20
tblVehicleEF	LHD1	2.22	1.85
tblVehicleEF	LHD1	5.25	4.69
tblVehicleEF	LHD1	8.22	8.05
tblVehicleEF	LHD1	602.22	592.34
tblVehicleEF	LHD1	48.16	47.48
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.23	1.07
tblVehicleEF	LHD1	1.61	1.56
tblVehicleEF	LHD1	3.7400e-004	3.6500e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	8.7210e-003	8.7170e-003
tblVehicleEF	LHD1	8.3690e-003	7.5590e-003
tblVehicleEF	LHD1	1.7820e-003	1.5190e-003
tblVehicleEF	LHD1	3.4400e-004	3.3600e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.1800e-003	2.1790e-003
tblVehicleEF	LHD1	7.7020e-003	6.9580e-003
tblVehicleEF	LHD1	1.6270e-003	1.3900e-003
tblVehicleEF	LHD1	5.0030e-003	4.6870e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03



tblVehicleEF	LHD1	2.8300e-003	2.7320e-003
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	0.42	0.41
tblVehicleEF	LHD1	0.52	0.48
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.0990e-003	6.1160e-003
tblVehicleEF	LHD1	5.8700e-004	5.8000e-004
tblVehicleEF	LHD1	5.0030e-003	4.6870e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.8300e-003	2.7320e-003
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.42	0.41
tblVehicleEF	LHD1	0.56	0.51
tblVehicleEF	LHD1	1.3770e-003	1.3670e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.20	0.20
tblVehicleEF	LHD1	2.18	1.81
tblVehicleEF	LHD1	6.71	5.99
tblVehicleEF	LHD1	8.22	8.05
tblVehicleEF	LHD1	602.22	592.34
tblVehicleEF	LHD1	48.16	47.48
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.31	1.13
tblVehicleEF	LHD1	1.69	1.63
tblVehicleEF	LHD1	3.7400e-004	3.6500e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	8.7210e-003	8.7170e-003

tblVehicleEF	LHD1	8.3690e-003	7.5590e-003
tblVehicleEF	LHD1	1.7820e-003	1.5190e-003
tblVehicleEF	LHD1	3.4400e-004	3.3600e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.1800e-003	2.1790e-003
tblVehicleEF	LHD1	7.7020e-003	6.9580e-003
tblVehicleEF	LHD1	1.6270e-003	1.3900e-003
tblVehicleEF	LHD1	3.6840e-003	3.4110e-003
tblVehicleEF	LHD1	0.09	0.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9440e-003	1.8900e-003
tblVehicleEF	LHD1	0.15	0.13
tblVehicleEF	LHD1	0.47	0.46
tblVehicleEF	LHD1	0.61	0.55
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.0980e-003	6.1160e-003
tblVehicleEF	LHD1	6.1300e-004	6.0300e-004
tblVehicleEF	LHD1	3.6840e-003	3.4110e-003
tblVehicleEF	LHD1	0.09	0.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9440e-003	1.8900e-003
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.47	0.46
tblVehicleEF	LHD1	0.65	0.59
tblVehicleEF	LHD2	1.1150e-003	1.1080e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	1.65	1.27
tblVehicleEF	LHD2	4.59	3.88

tblVehicleEF	LHD2	9.01	8.82
tblVehicleEF	LHD2	576.77	566.57
tblVehicleEF	LHD2	35.55	34.81
tblVehicleEF	LHD2	6.2460e-003	6.2830e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	2.19	1.89
tblVehicleEF	LHD2	1.19	1.14
tblVehicleEF	LHD2	9.3000e-004	9.1400e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.7170e-003	9.7040e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3370e-003	1.0190e-003
tblVehicleEF	LHD2	8.5600e-004	8.4100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.4290e-003	2.4260e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.1950e-003	9.2000e-004
tblVehicleEF	LHD2	2.4100e-003	2.1190e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3700e-003	1.2630e-003
tblVehicleEF	LHD2	0.14	0.11
tblVehicleEF	LHD2	0.34	0.32
tblVehicleEF	LHD2	0.42	0.36
tblVehicleEF	LHD2	5.7700e-003	5.7800e-003
tblVehicleEF	LHD2	4.4600e-004	4.3200e-004
tblVehicleEF	LHD2	2.4100e-003	2.1190e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3700e-003	1.2630e-003

tblVehicleEF	LHD2	0.16	0.13
tblVehicleEF	LHD2	0.34	0.32
tblVehicleEF	LHD2	0.45	0.39
tblVehicleEF	LHD2	1.1150e-003	1.1080e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	1.66	1.28
tblVehicleEF	LHD2	3.76	3.17
tblVehicleEF	LHD2	9.01	8.82
tblVehicleEF	LHD2	576.77	566.57
tblVehicleEF	LHD2	35.55	34.81
tblVehicleEF	LHD2	6.2460e-003	6.2830e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	2.05	1.77
tblVehicleEF	LHD2	1.15	1.10
tblVehicleEF	LHD2	9.3000e-004	9.1400e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.7170e-003	9.7040e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3370e-003	1.0190e-003
tblVehicleEF	LHD2	8.5600e-004	8.4100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.4290e-003	2.4260e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.1950e-003	9.2000e-004
tblVehicleEF	LHD2	3.6230e-003	3.1700e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.0270e-003	1.8350e-003

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tblVehicleEF	LHD2	0.33	0.31
tblVehicleEF	LHD2	0.37	0.32
tblVehicleEF	LHD2	5.7700e-003	5.7800e-003
tblVehicleEF	LHD2	4.3100e-004	4.2000e-004
tblVehicleEF	LHD2	3.6230e-003	3.1700e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.0270e-003	1.8350e-003
tblVehicleEF	LHD2	0.16	0.13
tblVehicleEF	LHD2	0.33	0.31
tblVehicleEF	LHD2	0.40	0.34
tblVehicleEF	LHD2	1.1150e-003	1.1080e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	1.64	1.26
tblVehicleEF	LHD2	4.74	4.00
tblVehicleEF	LHD2	9.01	8.82
tblVehicleEF	LHD2	576.77	566.57
tblVehicleEF	LHD2	35.55	34.81
tblVehicleEF	LHD2	6.2460e-003	6.2830e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	2.15	1.85
tblVehicleEF	LHD2	1.20	1.15
tblVehicleEF	LHD2	9.3000e-004	9.1400e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.7170e-003	9.7040e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3370e-003	1.0190e-003

tblVehicleEF	LHD2	8.5600e-004	8.4100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.4290e-003	2.4260e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.1950e-003	9.2000e-004
tblVehicleEF	LHD2	2.6660e-003	2.2990e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3740e-003	1.2530e-003
tblVehicleEF	LHD2	0.14	0.11
tblVehicleEF	LHD2	0.38	0.35
tblVehicleEF	LHD2	0.43	0.37
tblVehicleEF	LHD2	5.7700e-003	5.7800e-003
tblVehicleEF	LHD2	4.4800e-004	4.3500e-004
tblVehicleEF	LHD2	2.6660e-003	2.2990e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3740e-003	1.2530e-003
tblVehicleEF	LHD2	0.16	0.13
tblVehicleEF	LHD2	0.38	0.35
tblVehicleEF	LHD2	0.46	0.40
tblVehicleEF	MCY	22.89	21.17
tblVehicleEF	MCY	9.71	9.82
tblVehicleEF	MCY	147.17	147.81
tblVehicleEF	MCY	46.38	43.76
tblVehicleEF	MCY	3.6960e-003	3.6910e-003
tblVehicleEF	MCY	1.19	1.17
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	0.04	0.04
tblVehicleEF	MCY	7.0000e-004	5.0600e-004

tblVehicleEF	MCY	2.3630e-003	1.6970e-003
tblVehicleEF	MCY	0.02	0.02
tblVehicleEF	MCY	5.6000e-004	4.1100e-004
tblVehicleEF	MCY	1.8490e-003	1.3480e-003
tblVehicleEF	MCY	0.95	0.93
tblVehicleEF	MCY	0.50	0.46
tblVehicleEF	MCY	0.57	0.55
tblVehicleEF	MCY	2.51	2.43
tblVehicleEF	MCY	1.88	1.57
tblVehicleEF	MCY	2.17	2.12
tblVehicleEF	MCY	1.9330e-003	1.9410e-003
tblVehicleEF	MCY	6.9200e-004	6.7500e-004
tblVehicleEF	MCY	0.95	0.93
tblVehicleEF	MCY	0.50	0.46
tblVehicleEF	MCY	0.57	0.55
tblVehicleEF	MCY	2.76	2.67
tblVehicleEF	MCY	1.88	1.57
tblVehicleEF	MCY	2.34	2.28
tblVehicleEF	MCY	21.75	20.17
tblVehicleEF	MCY	8.68	8.72
tblVehicleEF	MCY	147.17	147.81
tblVehicleEF	MCY	46.38	43.76
tblVehicleEF	MCY	3.6960e-003	3.6910e-003
tblVehicleEF	MCY	1.03	1.02
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	0.04	0.04
tblVehicleEF	MCY	7.0000e-004	5.0600e-004
tblVehicleEF	MCY	2.3630e-003	1.6970e-003
tblVehicleEF	MCY	0.02	0.02
tblVehicleEF	MCY	5.6000e-004	4.1100e-004

tblVehicleEF	MCY	1.8490e-003	1.3480e-003
tblVehicleEF	MCY	1.53	1.50
tblVehicleEF	MCY	0.54	0.50
tblVehicleEF	MCY	0.95	0.92
tblVehicleEF	MCY	2.42	2.36
tblVehicleEF	MCY	1.75	1.45
tblVehicleEF	MCY	1.89	1.86
tblVehicleEF	MCY	1.9120e-003	1.9230e-003
tblVehicleEF	MCY	6.6700e-004	6.4900e-004
tblVehicleEF	MCY	1.53	1.50
tblVehicleEF	MCY	0.54	0.50
tblVehicleEF	MCY	0.95	0.92
tblVehicleEF	MCY	2.66	2.59
tblVehicleEF	MCY	1.75	1.45
tblVehicleEF	MCY	2.04	1.99
tblVehicleEF	MCY	23.10	21.35
tblVehicleEF	MCY	9.89	10.02
tblVehicleEF	MCY	147.17	147.81
tblVehicleEF	MCY	46.38	43.76
tblVehicleEF	MCY	3.6960e-003	3.6910e-003
tblVehicleEF	MCY	1.16	1.14
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	0.04	0.04
tblVehicleEF	MCY	7.0000e-004	5.0600e-004
tblVehicleEF	MCY	2.3630e-003	1.6970e-003
tblVehicleEF	MCY	0.02	0.02
tblVehicleEF	MCY	5.6000e-004	4.1100e-004
tblVehicleEF	MCY	1.8490e-003	1.3480e-003
tblVehicleEF	MCY	1.05	1.02
tblVehicleEF	MCY	0.65	0.59



tblVehicleEF	MCY	0.55	0.53
tblVehicleEF	MCY	2.53	2.45
tblVehicleEF	MCY	2.17	1.84
tblVehicleEF	MCY	2.23	2.17
tblVehicleEF	MCY	1.9360e-003	1.9440e-003
tblVehicleEF	MCY	6.9600e-004	6.7900e-004
tblVehicleEF	MCY	1.05	1.02
tblVehicleEF	MCY	0.65	0.59
tblVehicleEF	MCY	0.55	0.53
tblVehicleEF	MCY	2.78	2.69
tblVehicleEF	MCY	2.17	1.84
tblVehicleEF	MCY	2.40	2.34
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.87	2.56
tblVehicleEF	MDV	5.80	5.19
tblVehicleEF	MDV	606.41	580.22
tblVehicleEF	MDV	120.57	115.97
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.37	0.32
tblVehicleEF	MDV	0.56	0.49
tblVehicleEF	MDV	2.8070e-003	2.6430e-003
tblVehicleEF	MDV	3.5390e-003	3.4430e-003
tblVehicleEF	MDV	2.5760e-003	2.4310e-003
tblVehicleEF	MDV	3.2530e-003	3.1710e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.21
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.09	0.08
tblVehicleEF	MDV	0.64	0.65

tblVehicleEF	MDV	0.51	0.45
tblVehicleEF	MDV	6.4380e-003	6.4590e-003
tblVehicleEF	MDV	1.3650e-003	1.3580e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.21
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.13	0.11
tblVehicleEF	MDV	0.64	0.65
tblVehicleEF	MDV	0.54	0.48
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	3.08	2.75
tblVehicleEF	MDV	4.60	4.11
tblVehicleEF	MDV	632.24	604.99
tblVehicleEF	MDV	120.57	115.97
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.33	0.28
tblVehicleEF	MDV	0.52	0.46
tblVehicleEF	MDV	2.8070e-003	2.6430e-003
tblVehicleEF	MDV	3.5390e-003	3.4430e-003
tblVehicleEF	MDV	2.5760e-003	2.4310e-003
tblVehicleEF	MDV	3.2530e-003	3.1710e-003
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.22
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.09	0.08
tblVehicleEF	MDV	0.60	0.61
tblVehicleEF	MDV	0.43	0.38
tblVehicleEF	MDV	6.7150e-003	6.7370e-003
tblVehicleEF	MDV	1.3430e-003	1.3390e-003

tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.22
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.13	0.11
tblVehicleEF	MDV	0.60	0.61
tblVehicleEF	MDV	0.46	0.41
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.79	2.48
tblVehicleEF	MDV	6.06	5.43
tblVehicleEF	MDV	596.84	571.04
tblVehicleEF	MDV	120.57	115.97
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.36	0.31
tblVehicleEF	MDV	0.57	0.50
tblVehicleEF	MDV	2.8070e-003	2.6430e-003
tblVehicleEF	MDV	3.5390e-003	3.4430e-003
tblVehicleEF	MDV	2.5760e-003	2.4310e-003
tblVehicleEF	MDV	3.2530e-003	3.1710e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.23
tblVehicleEF	MDV	0.08	0.08
tblVehicleEF	MDV	0.09	0.08
tblVehicleEF	MDV	0.75	0.76
tblVehicleEF	MDV	0.53	0.46
tblVehicleEF	MDV	6.3360e-003	6.3560e-003
tblVehicleEF	MDV	1.3690e-003	1.3620e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.23
tblVehicleEF	MDV	0.08	0.08

tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.75	0.76
tblVehicleEF	MDV	0.56	0.50
tblVehicleEF	MH	7.77	5.14
tblVehicleEF	MH	11.97	9.68
tblVehicleEF	MH	670.28	658.34
tblVehicleEF	MH	35.76	33.03
tblVehicleEF	MH	1.6450e-003	1.6550e-003
tblVehicleEF	MH	1.75	1.49
tblVehicleEF	MH	1.03	0.91
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	8.4600e-003	8.4530e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.6470e-003	1.7560e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1150e-003	2.1130e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.2420e-003	1.5230e-003
tblVehicleEF	MH	1.54	1.31
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.63	0.54
tblVehicleEF	MH	0.25	0.17
tblVehicleEF	MH	2.33	2.19
tblVehicleEF	MH	0.78	0.59
tblVehicleEF	MH	6.8640e-003	6.8380e-003
tblVehicleEF	MH	5.7500e-004	5.1200e-004
tblVehicleEF	MH	1.54	1.31
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.63	0.54
tblVehicleEF	MH	0.29	0.20

tblVehicleEF	MH	2.33	2.19
tblVehicleEF	MH	0.83	0.63
tblVehicleEF	MH	7.76	5.17
tblVehicleEF	MH	9.56	7.68
tblVehicleEF	MH	670.28	658.34
tblVehicleEF	MH	35.76	33.03
tblVehicleEF	MH	1.6450e-003	1.6550e-003
tblVehicleEF	MH	1.59	1.36
tblVehicleEF	MH	0.98	0.87
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	8.4600e-003	8.4530e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.6470e-003	1.7560e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1150e-003	2.1130e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.2420e-003	1.5230e-003
tblVehicleEF	MH	2.20	1.87
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.88	0.75
tblVehicleEF	MH	0.25	0.17
tblVehicleEF	MH	2.27	2.14
tblVehicleEF	MH	0.64	0.49
tblVehicleEF	MH	6.8630e-003	6.8380e-003
tblVehicleEF	MH	5.3300e-004	4.7800e-004
tblVehicleEF	MH	2.20	1.87
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.88	0.75
tblVehicleEF	MH	0.29	0.20
tblVehicleEF	MH	2.27	2.14

tblVehicleEF	MH	0.69	0.53
tblVehicleEF	MH	7.77	5.13
tblVehicleEF	MH	12.41	10.05
tblVehicleEF	MH	670.28	658.34
tblVehicleEF	MH	35.76	33.03
tblVehicleEF	MH	1.6450e-003	1.6550e-003
tblVehicleEF	MH	1.71	1.46
tblVehicleEF	MH	1.04	0.91
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	8.4600e-003	8.4530e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.6470e-003	1.7560e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1150e-003	2.1130e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.2420e-003	1.5230e-003
tblVehicleEF	MH	1.82	1.53
tblVehicleEF	MH	0.14	0.12
tblVehicleEF	MH	0.67	0.57
tblVehicleEF	MH	0.25	0.17
tblVehicleEF	MH	2.46	2.31
tblVehicleEF	MH	0.80	0.61
tblVehicleEF	MH	6.8640e-003	6.8380e-003
tblVehicleEF	MH	5.8300e-004	5.1800e-004
tblVehicleEF	MH	1.82	1.53
tblVehicleEF	MH	0.14	0.12
tblVehicleEF	MH	0.67	0.57
tblVehicleEF	MH	0.29	0.20
tblVehicleEF	MH	2.46	2.31
tblVehicleEF	MH	0.86	0.65

tblVehicleEF	MHD	9.1490e-003	7.4170e-003
tblVehicleEF	MHD	7.6140e-003	5.3470e-003
tblVehicleEF	MHD	1.98	1.82
tblVehicleEF	MHD	1.81	1.29
tblVehicleEF	MHD	23.70	20.16
tblVehicleEF	MHD	606.65	606.04
tblVehicleEF	MHD	1,015.49	994.23
tblVehicleEF	MHD	62.16	57.28
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.20	6.27
tblVehicleEF	MHD	4.49	3.19
tblVehicleEF	MHD	2.37	2.11
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.08
tblVehicleEF	MHD	4.5660e-003	3.1220e-003
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.7920e-003	2.7960e-003
tblVehicleEF	MHD	0.11	0.07
tblVehicleEF	MHD	3.8030e-003	2.6590e-003
tblVehicleEF	MHD	3.7860e-003	3.0790e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.20	0.16
tblVehicleEF	MHD	2.2230e-003	1.8810e-003
tblVehicleEF	MHD	0.22	0.16
tblVehicleEF	MHD	0.67	0.55
tblVehicleEF	MHD	1.66	1.33
tblVehicleEF	MHD	5.8760e-003	5.9920e-003

tblVehicleEF	MHD	9.9130e-003	9.9000e-003
tblVehicleEF	MHD	1.0540e-003	9.5100e-004
tblVehicleEF	MHD	3.7860e-003	3.0790e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.22	0.18
tblVehicleEF	MHD	2.2230e-003	1.8810e-003
tblVehicleEF	MHD	0.26	0.18
tblVehicleEF	MHD	0.67	0.55
tblVehicleEF	MHD	1.78	1.42
tblVehicleEF	MHD	8.6220e-003	6.9900e-003
tblVehicleEF	MHD	7.6140e-003	5.3470e-003
tblVehicleEF	MHD	1.44	1.33
tblVehicleEF	MHD	1.81	1.30
tblVehicleEF	MHD	19.59	16.49
tblVehicleEF	MHD	642.69	642.05
tblVehicleEF	MHD	1,015.49	994.23
tblVehicleEF	MHD	62.16	57.28
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.43	6.47
tblVehicleEF	MHD	4.22	3.00
tblVehicleEF	MHD	2.27	2.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.08
tblVehicleEF	MHD	4.5660e-003	3.1220e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.7920e-003	2.7960e-003
tblVehicleEF	MHD	0.11	0.07



tblVehicleEF	MHD	3.8030e-003	2.6590e-003
tblVehicleEF	MHD	5.7560e-003	4.6580e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.19	0.15
tblVehicleEF	MHD	3.3540e-003	2.7850e-003
tblVehicleEF	MHD	0.22	0.16
tblVehicleEF	MHD	0.65	0.53
tblVehicleEF	MHD	1.43	1.15
tblVehicleEF	MHD	6.2250e-003	6.3480e-003
tblVehicleEF	MHD	9.9130e-003	9.9000e-003
tblVehicleEF	MHD	9.8300e-004	8.8800e-004
tblVehicleEF	MHD	5.7560e-003	4.6580e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.21	0.17
tblVehicleEF	MHD	3.3540e-003	2.7850e-003
tblVehicleEF	MHD	0.26	0.18
tblVehicleEF	MHD	0.65	0.53
tblVehicleEF	MHD	1.53	1.23
tblVehicleEF	MHD	9.8770e-003	8.0070e-003
tblVehicleEF	MHD	7.6140e-003	5.3470e-003
tblVehicleEF	MHD	2.73	2.51
tblVehicleEF	MHD	1.81	1.29
tblVehicleEF	MHD	24.49	20.87
tblVehicleEF	MHD	556.87	556.32
tblVehicleEF	MHD	1,015.49	994.23
tblVehicleEF	MHD	62.16	57.28
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	6.88	5.99
tblVehicleEF	MHD	4.41	3.13
tblVehicleEF	MHD	2.39	2.13

tblVehicleEF	MHD	0.05	0.03
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.08
tblVehicleEF	MHD	4.5660e-003	3.1220e-003
tblVehicleEF	MHD	0.05	0.03
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.7920e-003	2.7960e-003
tblVehicleEF	MHD	0.11	0.07
tblVehicleEF	MHD	3.8030e-003	2.6590e-003
tblVehicleEF	MHD	4.2380e-003	3.3880e-003
tblVehicleEF	MHD	0.21	0.15
tblVehicleEF	MHD	0.21	0.17
tblVehicleEF	MHD	2.2660e-003	1.8990e-003
tblVehicleEF	MHD	0.22	0.16
tblVehicleEF	MHD	0.73	0.60
tblVehicleEF	MHD	1.71	1.37
tblVehicleEF	MHD	5.3940e-003	5.5000e-003
tblVehicleEF	MHD	9.9130e-003	9.9000e-003
tblVehicleEF	MHD	1.0680e-003	9.6300e-004
tblVehicleEF	MHD	4.2380e-003	3.3880e-003
tblVehicleEF	MHD	0.21	0.15
tblVehicleEF	MHD	0.24	0.20
tblVehicleEF	MHD	2.2660e-003	1.8990e-003
tblVehicleEF	MHD	0.26	0.18
tblVehicleEF	MHD	0.73	0.60
tblVehicleEF	MHD	1.83	1.46
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	3.4320e-003	3.2660e-003
tblVehicleEF	OBUS	2.30	2.36

tblVehicleEF	OBUS	1.74	1.37
tblVehicleEF	OBUS	11.22	10.33
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tblVehicleEF	OBUS	1,120.43	1,112.31
tblVehicleEF	OBUS	37.05	35.72
tblVehicleEF	OBUS	2.4260e-003	2.4530e-003
tblVehicleEF	OBUS	7.28	5.94
tblVehicleEF	OBUS	5.80	4.26
tblVehicleEF	OBUS	1.53	1.43
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.06
tblVehicleEF	OBUS	1.1480e-003	8.8300e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6200e-003	2.6430e-003
tblVehicleEF	OBUS	0.09	0.05
tblVehicleEF	OBUS	1.0010e-003	7.8600e-004
tblVehicleEF	OBUS	9.2800e-004	9.3000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.49	0.41
tblVehicleEF	OBUS	4.5700e-004	4.8600e-004
tblVehicleEF	OBUS	0.21	0.16
tblVehicleEF	OBUS	0.29	0.30
tblVehicleEF	OBUS	0.71	0.64
tblVehicleEF	OBUS	5.5590e-003	5.6490e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.7400e-004	5.5200e-004
tblVehicleEF	OBUS	9.2800e-004	9.3000e-004

tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.56	0.47
tblVehicleEF	OBUS	4.5700e-004	4.8600e-004
tblVehicleEF	OBUS	0.25	0.18
tblVehicleEF	OBUS	0.29	0.30
tblVehicleEF	OBUS	0.76	0.69
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	3.4320e-003	3.2660e-003
tblVehicleEF	OBUS	1.67	1.72
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tblVehicleEF	OBUS	9.14	8.38
tblVehicleEF	OBUS	607.99	605.30
tblVehicleEF	OBUS	1,120.43	1,112.31
tblVehicleEF	OBUS	37.05	35.72
tblVehicleEF	OBUS	2.4260e-003	2.4530e-003
tblVehicleEF	OBUS	7.51	6.13
tblVehicleEF	OBUS	5.46	4.01
tblVehicleEF	OBUS	1.47	1.38
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.06
tblVehicleEF	OBUS	1.1480e-003	8.8300e-004
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tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6200e-003	2.6430e-003
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tblVehicleEF	OBUS	1.3450e-003	1.3440e-003
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tblVehicleEF	OBUS	0.21	0.16
tblVehicleEF	OBUS	0.28	0.29
tblVehicleEF	OBUS	0.62	0.57
tblVehicleEF	OBUS	5.8890e-003	5.9840e-003
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tblVehicleEF	OBUS	1.3450e-003	1.3440e-003
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tblVehicleEF	OBUS	0.53	0.44
tblVehicleEF	OBUS	6.6000e-004	6.8700e-004
tblVehicleEF	OBUS	0.25	0.18
tblVehicleEF	OBUS	0.28	0.29
tblVehicleEF	OBUS	0.66	0.60
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	3.4320e-003	3.2660e-003
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tblVehicleEF	OBUS	526.81	524.48
tblVehicleEF	OBUS	1,120.43	1,112.31
tblVehicleEF	OBUS	37.05	35.72
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tblVehicleEF	OBUS	6.96	5.67
tblVehicleEF	OBUS	5.70	4.19
tblVehicleEF	OBUS	1.54	1.45
tblVehicleEF	OBUS	0.07	0.02
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	0.10	0.06
tblVehicleEF	OBUS	1.1480e-003	8.8300e-004
tblVehicleEF	OBUS	0.07	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6200e-003	2.6430e-003
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tblVehicleEF	OBUS	1.0010e-003	7.8600e-004
tblVehicleEF	OBUS	1.0220e-003	9.9400e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.45
tblVehicleEF	OBUS	4.6000e-004	4.8100e-004
tblVehicleEF	OBUS	0.21	0.16
tblVehicleEF	OBUS	0.31	0.32
tblVehicleEF	OBUS	0.73	0.66
tblVehicleEF	OBUS	5.1030e-003	5.1850e-003
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tblVehicleEF	OBUS	0.60	0.51
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tblVehicleEF	OBUS	0.25	0.18
tblVehicleEF	OBUS	0.31	0.32
tblVehicleEF	OBUS	0.78	0.70
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tblVehicleEF	SBUS	1,155.83	1,130.57
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tblVehicleEF	SBUS	8.55	8.44
tblVehicleEF	SBUS	2.51	2.39
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tblVehicleEF	SBUS	0.58	0.58
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
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tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	0.02	0.02

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tblVehicleEF	SBUS	5.0870e-003	5.1230e-003
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tblVehicleEF	SBUS	1,155.83	1,130.57
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tblVehicleEF	SBUS	5.4700e-004	5.4300e-004
tblVehicleEF	SBUS	8.46	8.35
tblVehicleEF	SBUS	8.04	7.94
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tblVehicleEF	SBUS	0.58	0.58
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	7.8690e-003	7.0020e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.25	0.25
tblVehicleEF	SBUS	2.7730e-003	2.7720e-003
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tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.03	0.03
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tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.12	0.13
tblVehicleEF	SBUS	0.03	0.03
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tblVehicleEF	SBUS	5.8270e-003	5.8680e-003
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tblVehicleEF	SBUS	5.36	4.90
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tblVehicleEF	SBUS	1,155.83	1,130.57
tblVehicleEF	SBUS	130.96	127.39
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tblVehicleEF	SBUS	0.09	0.09
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tblVehicleEF	SBUS	2.7730e-003	2.7720e-003
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tblVehicleEF	SBUS	6.8680e-003	6.1480e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.37	0.34
tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.46	0.44
tblVehicleEF	SBUS	2.81	2.75
tblVehicleEF	SBUS	2.64	2.45
tblVehicleEF	SBUS	5.1720e-003	5.1800e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.0530e-003	1.9970e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.37	0.34
tblVehicleEF	SBUS	0.14	0.14
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.51	0.50
tblVehicleEF	SBUS	2.81	2.75
tblVehicleEF	SBUS	2.83	2.62
tblVehicleEF	UBUS	5.41	5.02
tblVehicleEF	UBUS	8.46	8.21
tblVehicleEF	UBUS	2,287.55	2,216.14
tblVehicleEF	UBUS	22.10	21.49
tblVehicleEF	UBUS	3.1710e-003	3.1570e-003
tblVehicleEF	UBUS	14.75	13.87
tblVehicleEF	UBUS	0.90	0.89
tblVehicleEF	UBUS	0.24	0.22
tblVehicleEF	UBUS	7.7800e-004	7.0200e-004

tblVehicleEF	UBUS	0.22	0.21
tblVehicleEF	UBUS	6.8900e-004	6.3000e-004
tblVehicleEF	UBUS	4.5680e-003	4.5000e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5400e-003	2.5020e-003
tblVehicleEF	UBUS	0.86	0.83
tblVehicleEF	UBUS	0.61	0.64
tblVehicleEF	UBUS	0.62	0.60
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	3.7600e-004	3.7000e-004
tblVehicleEF	UBUS	4.5680e-003	4.5000e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5400e-003	2.5020e-003
tblVehicleEF	UBUS	0.96	0.92
tblVehicleEF	UBUS	0.61	0.64
tblVehicleEF	UBUS	0.66	0.64
tblVehicleEF	UBUS	5.43	5.05
tblVehicleEF	UBUS	7.11	6.89
tblVehicleEF	UBUS	2,287.55	2,216.14
tblVehicleEF	UBUS	22.10	21.49
tblVehicleEF	UBUS	3.1710e-003	3.1570e-003
tblVehicleEF	UBUS	13.91	13.08
tblVehicleEF	UBUS	0.86	0.85
tblVehicleEF	UBUS	0.24	0.22
tblVehicleEF	UBUS	7.7800e-004	7.0200e-004
tblVehicleEF	UBUS	0.22	0.21
tblVehicleEF	UBUS	6.8900e-004	6.3000e-004
tblVehicleEF	UBUS	6.4920e-003	6.3740e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	3.5460e-003	3.4570e-003

tblVehicleEF	UBUS	0.87	0.84
tblVehicleEF	UBUS	0.56	0.59
tblVehicleEF	UBUS	0.55	0.53
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	3.5300e-004	3.4700e-004
tblVehicleEF	UBUS	6.4920e-003	6.3740e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	3.5460e-003	3.4570e-003
tblVehicleEF	UBUS	0.97	0.93
tblVehicleEF	UBUS	0.56	0.59
tblVehicleEF	UBUS	0.59	0.57
tblVehicleEF	UBUS	5.40	5.01
tblVehicleEF	UBUS	8.69	8.44
tblVehicleEF	UBUS	2,287.55	2,216.14
tblVehicleEF	UBUS	22.10	21.49
tblVehicleEF	UBUS	3.1710e-003	3.1570e-003
tblVehicleEF	UBUS	14.47	13.60
tblVehicleEF	UBUS	0.91	0.90
tblVehicleEF	UBUS	0.24	0.22
tblVehicleEF	UBUS	7.7800e-004	7.0200e-004
tblVehicleEF	UBUS	0.22	0.21
tblVehicleEF	UBUS	6.8900e-004	6.3000e-004
tblVehicleEF	UBUS	5.3900e-003	5.2850e-003
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	2.7720e-003	2.7160e-003
tblVehicleEF	UBUS	0.86	0.82
tblVehicleEF	UBUS	0.71	0.74
tblVehicleEF	UBUS	0.63	0.61
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	3.8000e-004	3.7400e-004

tblVehicleEF	UBUS	5.3900e-003	5.2850e-003
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	2.7720e-003	2.7160e-003
tblVehicleEF	UBUS	0.96	0.92
tblVehicleEF	UBUS	0.71	0.74
tblVehicleEF	UBUS	0.68	0.65
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TTP	0.00	64.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TTP	0.00	16.60
tblVehicleTrips	DV_TP	0.00	40.00
tblVehicleTrips	HO_TL	8.70	9.50
tblVehicleTrips	HS_TL	5.90	7.00
tblVehicleTrips	HW_TL	14.70	12.70
tblVehicleTrips	PB_TP	0.00	15.00
tblVehicleTrips	PR_TP	0.00	45.00

tblVehicleTrips	ST_TR	0.00	27.49
tblVehicleTrips	SU_TR	0.00	27.49
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	11.01	12.40
tblVehicleTrips	WD_TR	0.00	27.49
tblWater	IndoorWaterUseRate	0.00	3,341,411.44
tblWater	OutdoorWaterUseRate	3,121,727.66	0.00
tblWater	OutdoorWaterUseRate	14,934,794.84	0.00
tblWater	OutdoorWaterUseRate	158,870.84	0.00

## 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	18.1355	229.8934	145.8018	0.2748	18.2401	9.2467	23.9621	9.9768	8.5065	15.2410	0.0000	28,753.8913	28,753.8913	4.0785	0.0000	28,839.5407
2014	7.5238	58.3678	59.3286	0.0968	3.4156	3.0179	6.4335	0.9194	2.8238	3.7431	0.0000	9,478.2446	9,478.2446	1.2172	0.0000	9,503.8050
2015	38.4088	54.9781	55.8542	0.0968	3.4158	2.8335	6.2492	0.9194	2.6496	3.5690	0.0000	9,324.7417	9,324.7417	1.1846	0.0000	9,349.6184
<b>Total</b>	<b>64.0680</b>	<b>343.2393</b>	<b>260.9846</b>	<b>0.4684</b>	<b>25.0714</b>	<b>15.0981</b>	<b>36.6448</b>	<b>11.8156</b>	<b>13.9799</b>	<b>22.5531</b>	<b>0.0000</b>	<b>47,556.8776</b>	<b>47,556.8776</b>	<b>6.4803</b>	<b>0.0000</b>	<b>47,692.9640</b>

#### 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
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Year	lb/day										lb/day					
2013	8.9731	140.1468	129.6665	0.2748	7.2197	4.8856	11.1864	3.9191	4.6986	7.0297	0.0000	28,753.8913	28,753.8913	4.0785	0.0000	28,839.5407
2014	3.5644	32.8728	58.9175	0.0968	3.4156	1.3382	4.7538	0.9194	1.3161	2.2355	0.0000	9,478.2446	9,478.2446	1.2172	0.0000	9,503.8050
2015	38.0616	31.1151	55.6416	0.0968	3.4158	1.2792	4.6950	0.9194	1.2619	2.1814	0.0000	9,324.7417	9,324.7417	1.1846	0.0000	9,349.6184
<b>Total</b>	<b>50.5991</b>	<b>204.1347</b>	<b>244.2256</b>	<b>0.4684</b>	<b>14.0510</b>	<b>7.5030</b>	<b>20.6351</b>	<b>5.7578</b>	<b>7.2767</b>	<b>11.4465</b>	<b>0.0000</b>	<b>47,556.8775</b>	<b>47,556.8775</b>	<b>6.4803</b>	<b>0.0000</b>	<b>47,692.9640</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>21.02</b>	<b>40.53</b>	<b>6.42</b>	<b>0.00</b>	<b>43.96</b>	<b>50.30</b>	<b>43.69</b>	<b>51.27</b>	<b>47.95</b>	<b>49.25</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	36.4410	0.5826	44.7460	0.0611		5.8401	5.8401		5.8392	5.8392	711.8858	1,379.5399	2,091.4257	2.1358	0.0483	2,151.2553
Energy	0.2057	1.8578	1.4816	0.0112		0.1421	0.1421		0.1421	0.1421		2,243.9219	2,243.9219	0.0430	0.0411	2,257.5781
Mobile	20.7445	52.4879	220.6156	0.4898	31.9600	0.7528	32.7128	8.5454	0.6920	9.2374		43,147.8916	43,147.8916	1.8161		43,186.0305
<b>Total</b>	<b>57.3912</b>	<b>54.9283</b>	<b>266.8432</b>	<b>0.5622</b>	<b>31.9600</b>	<b>6.7350</b>	<b>38.6950</b>	<b>8.5454</b>	<b>6.6733</b>	<b>15.2186</b>	<b>711.8858</b>	<b>46,771.3534</b>	<b>47,483.2392</b>	<b>3.9949</b>	<b>0.0895</b>	<b>47,594.8639</b>

## 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
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Category	lb/day										lb/day					
Area	14.3853	0.0773	6.5524	3.4000e-004		0.1263	0.1263		0.1253	0.1253	0.0000	1,460.0105	1,460.0105	0.0406	0.0266	1,469.0942
Energy	0.1646	1.4862	1.1853	8.9800e-003		0.1137	0.1137		0.1137	0.1137		1,795.1376	1,795.1376	0.0344	0.0329	1,806.0625
Mobile	18.1938	35.4469	155.9977	0.3042	19.4504	0.4767	19.9271	5.2006	0.4382	5.6388		26,784.2285	26,784.2285	1.1770		26,808.9450
<b>Total</b>	<b>32.7436</b>	<b>37.0104</b>	<b>163.7354</b>	<b>0.3135</b>	<b>19.4504</b>	<b>0.7167</b>	<b>20.1671</b>	<b>5.2006</b>	<b>0.6772</b>	<b>5.8778</b>	<b>0.0000</b>	<b>30,039.3766</b>	<b>30,039.3766</b>	<b>1.2519</b>	<b>0.0595</b>	<b>30,084.1017</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>42.95</b>	<b>32.62</b>	<b>38.64</b>	<b>44.23</b>	<b>39.14</b>	<b>89.36</b>	<b>47.88</b>	<b>39.14</b>	<b>89.85</b>	<b>61.38</b>	<b>100.00</b>	<b>35.77</b>	<b>36.74</b>	<b>68.66</b>	<b>33.52</b>	<b>36.79</b>

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2013	1/31/2013	5	22	
2	Site Preparation	Site Preparation	2/1/2013	2/28/2013	5	20	
3	Grading & Excavation	Grading	3/1/2013	10/31/2013	5	175	
4	Building Construction	Building Construction	11/1/2013	5/29/2015	5	411	
5	Architectural Coating	Architectural Coating	5/30/2015	9/30/2015	5	88	
6	Paving	Paving	10/1/2015	10/30/2015	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 153,900; Residential Outdoor: 51,300; Non-Residential Indoor: 882,465; Non-Residential Outdoor: 294,155

#### OffRoad Equipment



Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	358	0.59
Demolition	Excavators	0	8.00	162	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	358	0.59
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	75	0.55
Grading & Excavation	Excavators	2	8.00	157	0.57
Grading & Excavation	Graders	1	8.00	162	0.61
Demolition	Tractors/Loaders/Backhoes	3	8.00	75	0.55
Grading & Excavation	Rubber Tired Dozers	1	8.00	358	0.59
Grading & Excavation	Tractors/Loaders/Backhoes	3	8.00	75	0.55
Building Construction	Cranes	1	7.00	208	0.43
Building Construction	Forklifts	3	8.00	149	0.30
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	75	0.55
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	89	0.62
Paving	Paving Equipment	2	6.00	82	0.53
Paving	Rollers	2	6.00	84	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	75	0.55
Grading & Excavation	Other Construction Equipment	4	8.00	327	0.62

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	381.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading & Excavation	11	28.00	0.00	34,500.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT

Building Construction	9	281.00	105.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

### 3.2 Demolition - 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					3.7528	0.0000	3.7528	0.5682	0.0000	0.5682			0.0000			0.0000
Off-Road	7.6115	80.6677	60.1281	0.0539		4.3972	4.3972		4.0831	4.0831		5,675.4829	5,675.4829	1.5706		5,708.4649
<b>Total</b>	<b>7.6115</b>	<b>80.6677</b>	<b>60.1281</b>	<b>0.0539</b>	<b>3.7528</b>	<b>4.3972</b>	<b>8.1500</b>	<b>0.5682</b>	<b>4.0831</b>	<b>4.6513</b>		<b>5,675.4829</b>	<b>5,675.4829</b>	<b>1.5706</b>		<b>5,708.4649</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5094	7.0968	4.7693	0.0130	0.3014	0.2045	0.5060	0.0825	0.1881	0.2706		1,338.3894	1,338.3894	0.0157		1,338.7191

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0863	0.1006	1.2311	1.8900e-003	0.1449	1.7200e-003	0.1466	0.0384	1.5600e-003	0.0400		174.7241	174.7241	0.0113		174.9613
<b>Total</b>	<b>0.5957</b>	<b>7.1974</b>	<b>6.0004</b>	<b>0.0149</b>	<b>0.4463</b>	<b>0.2062</b>	<b>0.6525</b>	<b>0.1209</b>	<b>0.1897</b>	<b>0.3106</b>		<b>1,513.1135</b>	<b>1,513.1135</b>	<b>0.0270</b>		<b>1,513.6804</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4636	0.0000	1.4636	0.2216	0.0000	0.2216			0.0000			0.0000
Off-Road	1.2811	26.1231	31.3056	0.0539		1.2749	1.2749		1.2749	1.2749	0.0000	5,675.4829	5,675.4829	1.5706		5,708.4649
<b>Total</b>	<b>1.2811</b>	<b>26.1231</b>	<b>31.3056</b>	<b>0.0539</b>	<b>1.4636</b>	<b>1.2749</b>	<b>2.7385</b>	<b>0.2216</b>	<b>1.2749</b>	<b>1.4965</b>	<b>0.0000</b>	<b>5,675.4829</b>	<b>5,675.4829</b>	<b>1.5706</b>		<b>5,708.4649</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5094	7.0968	4.7693	0.0130	0.3014	0.2045	0.5060	0.0825	0.1881	0.2706		1,338.3894	1,338.3894	0.0157		1,338.7191
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0863	0.1006	1.2311	1.8900e-003	0.1449	1.7200e-003	0.1466	0.0384	1.5600e-003	0.0400		174.7241	174.7241	0.0113		174.9613
<b>Total</b>	<b>0.5957</b>	<b>7.1974</b>	<b>6.0004</b>	<b>0.0149</b>	<b>0.4463</b>	<b>0.2062</b>	<b>0.6525</b>	<b>0.1209</b>	<b>0.1897</b>	<b>0.3106</b>		<b>1,513.1135</b>	<b>1,513.1135</b>	<b>0.0270</b>		<b>1,513.6804</b>

### 3.3 Site Preparation - 2013

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	9.9156	110.2849	82.9934	0.0696		5.7199	5.7199		5.2623	5.2623		7,432.6282	7,432.6282	2.1853		7,478.5201
<b>Total</b>	<b>9.9156</b>	<b>110.2849</b>	<b>82.9934</b>	<b>0.0696</b>	<b>18.0663</b>	<b>5.7199</b>	<b>23.7862</b>	<b>9.9307</b>	<b>5.2623</b>	<b>15.1930</b>		<b>7,432.6282</b>	<b>7,432.6282</b>	<b>2.1853</b>		<b>7,478.5201</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1035	0.1207	1.4773	2.2700e-003	0.1739	2.0600e-003	0.1759	0.0461	1.8800e-003	0.0480		209.6689	209.6689	0.0136		209.9536
<b>Total</b>	<b>0.1035</b>	<b>0.1207</b>	<b>1.4773</b>	<b>2.2700e-003</b>	<b>0.1739</b>	<b>2.0600e-003</b>	<b>0.1759</b>	<b>0.0461</b>	<b>1.8800e-003</b>	<b>0.0480</b>		<b>209.6689</b>	<b>209.6689</b>	<b>0.0136</b>		<b>209.9536</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	1.6903	33.9017	39.8246	0.0696		1.5422	1.5422		1.5422	1.5422	0.0000	7,432.628 2	7,432.6282	2.1853		7,478.520 1
<b>Total</b>	<b>1.6903</b>	<b>33.9017</b>	<b>39.8246</b>	<b>0.0696</b>	<b>7.0458</b>	<b>1.5422</b>	<b>8.5881</b>	<b>3.8730</b>	<b>1.5422</b>	<b>5.4152</b>	<b>0.0000</b>	<b>7,432.628 2</b>	<b>7,432.6282</b>	<b>2.1853</b>		<b>7,478.520 1</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1035	0.1207	1.4773	2.2700e-003	0.1739	2.0600e-003	0.1759	0.0461	1.8800e-003	0.0480		209.6689	209.6689	0.0136		209.9536
<b>Total</b>	<b>0.1035</b>	<b>0.1207</b>	<b>1.4773</b>	<b>2.2700e-003</b>	<b>0.1739</b>	<b>2.0600e-003</b>	<b>0.1759</b>	<b>0.0461</b>	<b>1.8800e-003</b>	<b>0.0480</b>		<b>209.6689</b>	<b>209.6689</b>	<b>0.0136</b>		<b>209.9536</b>

### **3.4 Grading & Excavation - 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					6.6638	0.0000	6.6638	3.3844	0.0000	3.3844			0.0000			0.0000

Off-Road	12.1757	148.9192	89.2125	0.1237		6.9154	6.9154		6.3621	6.3621		13,192.0812	13,192.0812	3.8787		13,273.5342
<b>Total</b>	<b>12.1757</b>	<b>148.9192</b>	<b>89.2125</b>	<b>0.1237</b>	<b>6.6638</b>	<b>6.9154</b>	<b>13.5792</b>	<b>3.3844</b>	<b>6.3621</b>	<b>9.7465</b>		<b>13,192.0812</b>	<b>13,192.0812</b>	<b>3.8787</b>		<b>13,273.5342</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.7989	80.7864	54.2914	0.1475	3.4314	2.3281	5.7595	0.9394	2.1414	3.0809		15,235.6584	15,235.6584	0.1787		15,239.4120
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1610	0.1878	2.2980	3.5300e-003	0.2704	3.2100e-003	0.2736	0.0717	2.9200e-003	0.0747		326.1517	326.1517	0.0211		326.5945
<b>Total</b>	<b>5.9599</b>	<b>80.9742</b>	<b>56.5894</b>	<b>0.1510</b>	<b>3.7019</b>	<b>2.3313</b>	<b>6.0332</b>	<b>1.0111</b>	<b>2.1444</b>	<b>3.1555</b>		<b>15,561.8101</b>	<b>15,561.8101</b>	<b>0.1998</b>		<b>15,566.0065</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5989	0.0000	2.5989	1.3199	0.0000	1.3199			0.0000			0.0000
Off-Road	3.0132	59.1726	73.0771	0.1237		2.5543	2.5543		2.5543	2.5543	0.0000	13,192.0812	13,192.0812	3.8787		13,273.5342
<b>Total</b>	<b>3.0132</b>	<b>59.1726</b>	<b>73.0771</b>	<b>0.1237</b>	<b>2.5989</b>	<b>2.5543</b>	<b>5.1532</b>	<b>1.3199</b>	<b>2.5543</b>	<b>3.8742</b>	<b>0.0000</b>	<b>13,192.0812</b>	<b>13,192.0812</b>	<b>3.8787</b>		<b>13,273.5342</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.7989	80.7864	54.2914	0.1475	3.4314	2.3281	5.7595	0.9394	2.1414	3.0809		15,235.6584	15,235.6584	0.1787		15,239.4120
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1610	0.1878	2.2980	3.5300e-003	0.2704	3.2100e-003	0.2736	0.0717	2.9200e-003	0.0747		326.1517	326.1517	0.0211		326.5945
<b>Total</b>	<b>5.9599</b>	<b>80.9742</b>	<b>56.5894</b>	<b>0.1510</b>	<b>3.7019</b>	<b>2.3313</b>	<b>6.0332</b>	<b>1.0111</b>	<b>2.1444</b>	<b>3.1555</b>		<b>15,561.8101</b>	<b>15,561.8101</b>	<b>0.1998</b>		<b>15,566.0065</b>

**3.5 Building Construction - 2013**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.2389	46.8375	25.7791	0.0368		2.9514	2.9514		2.7676	2.7676		3,782.8706	3,782.8706	1.0149		3,804.1832
<b>Total</b>	<b>5.2389</b>	<b>46.8375</b>	<b>25.7791</b>	<b>0.0368</b>		<b>2.9514</b>	<b>2.9514</b>		<b>2.7676</b>	<b>2.7676</b>		<b>3,782.8706</b>	<b>3,782.8706</b>	<b>1.0149</b>		<b>3,804.1832</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4653	14.0876	14.8919	0.0247	0.7013	0.3735	1.0747	0.1994	0.3434	0.5428	2,530.3255	2,530.3255	0.0289	2,530.9322	
Worker	1.6160	1.8847	23.0622	0.0354	2.7140	0.0322	2.7461	0.7198	0.0293	0.7491	3,273.1652	3,273.1652	0.2116	3,277.6091	
<b>Total</b>	<b>3.0813</b>	<b>15.9723</b>	<b>37.9541</b>	<b>0.0601</b>	<b>3.4152</b>	<b>0.4056</b>	<b>3.8209</b>	<b>0.9192</b>	<b>0.3727</b>	<b>1.2919</b>	<b>5,803.4907</b>	<b>5,803.4907</b>	<b>0.2405</b>	<b>5,808.5413</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9161	18.6163	24.9590	0.0368		1.0658	1.0658		1.0658	1.0658	0.0000	3,782.8706	3,782.8706	1.0149		3,804.1832
<b>Total</b>	<b>0.9161</b>	<b>18.6163</b>	<b>24.9590</b>	<b>0.0368</b>		<b>1.0658</b>	<b>1.0658</b>		<b>1.0658</b>	<b>1.0658</b>	<b>0.0000</b>	<b>3,782.8706</b>	<b>3,782.8706</b>	<b>1.0149</b>		<b>3,804.1832</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.4653	14.0876	14.8919	0.0247	0.7013	0.3735	1.0747	0.1994	0.3434	0.5428	2,530.3255	2,530.3255	0.0289	2,530.9322		



Worker	1.6160	1.8847	23.0622	0.0354	2.7140	0.0322	2.7461	0.7198	0.0293	0.7491		3,273.1652	3,273.1652	0.2116		3,277.6091
<b>Total</b>	<b>3.0813</b>	<b>15.9723</b>	<b>37.9541</b>	<b>0.0601</b>	<b>3.4152</b>	<b>0.4056</b>	<b>3.8209</b>	<b>0.9192</b>	<b>0.3727</b>	<b>1.2919</b>		<b>5,803.4907</b>	<b>5,803.4907</b>	<b>0.2405</b>		<b>5,808.5413</b>

### 3.5 Building Construction - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8754	44.1112	25.3700	0.0368		2.7455	2.7455		2.5734	2.5734		3,765.9321	3,765.9321	1.0011		3,786.9560
<b>Total</b>	<b>4.8754</b>	<b>44.1112</b>	<b>25.3700</b>	<b>0.0368</b>		<b>2.7455</b>	<b>2.7455</b>		<b>2.5734</b>	<b>2.5734</b>		<b>3,765.9321</b>	<b>3,765.9321</b>	<b>1.0011</b>		<b>3,786.9560</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1989	12.5625	13.1569	0.0247	0.7016	0.2431	0.9447	0.1995	0.2235	0.4230		2,521.0117	2,521.0117	0.0226		2,521.4865
Worker	1.4495	1.6940	20.8016	0.0354	2.7140	0.0294	2.7434	0.7198	0.0269	0.7467		3,191.3008	3,191.3008	0.1934		3,195.3625
<b>Total</b>	<b>2.6484</b>	<b>14.2565</b>	<b>33.9585</b>	<b>0.0600</b>	<b>3.4156</b>	<b>0.2725</b>	<b>3.6881</b>	<b>0.9193</b>	<b>0.2504</b>	<b>1.1697</b>		<b>5,712.3125</b>	<b>5,712.3125</b>	<b>0.2160</b>		<b>5,716.8490</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9161	18.6163	24.9590	0.0368		1.0658	1.0658		1.0658	1.0658	0.0000	3,765.9321	3,765.9321	1.0011		3,786.9560
<b>Total</b>	<b>0.9161</b>	<b>18.6163</b>	<b>24.9590</b>	<b>0.0368</b>		<b>1.0658</b>	<b>1.0658</b>		<b>1.0658</b>	<b>1.0658</b>	<b>0.0000</b>	<b>3,765.9321</b>	<b>3,765.9321</b>	<b>1.0011</b>		<b>3,786.9560</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1989	12.5625	13.1569	0.0247	0.7016	0.2431	0.9447	0.1995	0.2235	0.4230		2,521.0117	2,521.0117	0.0226		2,521.4865
Worker	1.4495	1.6940	20.8016	0.0354	2.7140	0.0294	2.7434	0.7198	0.0269	0.7467		3,191.3008	3,191.3008	0.1934		3,195.3625
<b>Total</b>	<b>2.6484</b>	<b>14.2565</b>	<b>33.9585</b>	<b>0.0600</b>	<b>3.4156</b>	<b>0.2725</b>	<b>3.6881</b>	<b>0.9193</b>	<b>0.2504</b>	<b>1.1697</b>		<b>5,712.3125</b>	<b>5,712.3125</b>	<b>0.2160</b>		<b>5,716.8490</b>

**3.5 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
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Category	lb/day										lb/day					
Off-Road	4.6513	42.4793	25.1716	0.0368		2.6200	2.6200		2.4534	2.4534		3,735.5068	3,735.5068	0.9871		3,756.2353
<b>Total</b>	<b>4.6513</b>	<b>42.4793</b>	<b>25.1716</b>	<b>0.0368</b>		<b>2.6200</b>	<b>2.6200</b>		<b>2.4534</b>	<b>2.4534</b>		<b>3,735.5068</b>	<b>3,735.5068</b>	<b>0.9871</b>		<b>3,756.2353</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0328	10.9730	11.8651	0.0246	0.7018	0.1860	0.8878	0.1996	0.1711	0.3707		2,493.1166	2,493.1166	0.0199		2,493.5337
Worker	1.3078	1.5259	18.8175	0.0354	2.7140	0.0274	2.7414	0.7198	0.0251	0.7450		3,096.1182	3,096.1182	0.1777		3,099.8494
<b>Total</b>	<b>2.3405</b>	<b>12.4989</b>	<b>30.6827</b>	<b>0.0601</b>	<b>3.4158</b>	<b>0.2135</b>	<b>3.6292</b>	<b>0.9194</b>	<b>0.1962</b>	<b>1.1156</b>		<b>5,589.2348</b>	<b>5,589.2348</b>	<b>0.1975</b>		<b>5,593.3830</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9161	18.6163	24.9590	0.0368		1.0658	1.0658		1.0658	1.0658	0.0000	3,735.5068	3,735.5068	0.9871		3,756.2353
<b>Total</b>	<b>0.9161</b>	<b>18.6163</b>	<b>24.9590</b>	<b>0.0368</b>		<b>1.0658</b>	<b>1.0658</b>		<b>1.0658</b>	<b>1.0658</b>	<b>0.0000</b>	<b>3,735.5068</b>	<b>3,735.5068</b>	<b>0.9871</b>		<b>3,756.2353</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0328	10.9730	11.8651	0.0246	0.7018	0.1860	0.8878	0.1996	0.1711	0.3707		2,493.1166	2,493.1166	0.0199		2,493.5337
Worker	1.3078	1.5259	18.8175	0.0354	2.7140	0.0274	2.7414	0.7198	0.0251	0.7450		3,096.1182	3,096.1182	0.1777		3,099.8494
<b>Total</b>	<b>2.3405</b>	<b>12.4989</b>	<b>30.6827</b>	<b>0.0601</b>	<b>3.4158</b>	<b>0.2135</b>	<b>3.6292</b>	<b>0.9194</b>	<b>0.1962</b>	<b>1.1156</b>		<b>5,589.2348</b>	<b>5,589.2348</b>	<b>0.1975</b>		<b>5,593.3830</b>

**3.6 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	37.7415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
<b>Total</b>	<b>38.1481</b>	<b>2.5703</b>	<b>1.9018</b>	<b>2.9700e-003</b>		<b>0.2209</b>	<b>0.2209</b>		<b>0.2209</b>	<b>0.2209</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0367</b>		<b>282.2177</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2606	0.3041	3.7501	7.0600e-003	0.5409	5.4700e-003	0.5463	0.1435	5.0100e-003	0.1485		617.0200	617.0200	0.0354		617.7636
<b>Total</b>	<b>0.2606</b>	<b>0.3041</b>	<b>3.7501</b>	<b>7.0600e-003</b>	<b>0.5409</b>	<b>5.4700e-003</b>	<b>0.5463</b>	<b>0.1435</b>	<b>5.0100e-003</b>	<b>0.1485</b>		<b>617.0200</b>	<b>617.0200</b>	<b>0.0354</b>		<b>617.7636</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.7415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0367		282.2177
<b>Total</b>	<b>37.8010</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0367</b>		<b>282.2177</b>

**Mitigated Construction Off-Site**

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2606	0.3041	3.7501	7.0600e-003	0.5409	5.4700e-003	0.5463	0.1435	5.0100e-003	0.1485		617.0200	617.0200	0.0354		617.7636
<b>Total</b>	<b>0.2606</b>	<b>0.3041</b>	<b>3.7501</b>	<b>7.0600e-003</b>	<b>0.5409</b>	<b>5.4700e-003</b>	<b>0.5463</b>	<b>0.1435</b>	<b>5.0100e-003</b>	<b>0.1485</b>		<b>617.0200</b>	<b>617.0200</b>	<b>0.0354</b>		<b>617.7636</b>

### 3.7 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	2.7747	25.3464	16.0846	0.0211		1.9209	1.9209		1.7691	1.7691		2,176.9565	2,176.9565	0.6352		2,190.2948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.7747</b>	<b>25.3464</b>	<b>16.0846</b>	<b>0.0211</b>		<b>1.9209</b>	<b>1.9209</b>		<b>1.7691</b>	<b>1.7691</b>		<b>2,176.9565</b>	<b>2,176.9565</b>	<b>0.6352</b>		<b>2,190.2948</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0931	0.1086	1.3393	2.5200e-003	0.1932	1.9500e-003	0.1951	0.0512	1.7900e-003	0.0530		220.3643	220.3643	0.0127		220.6299

<b>Total</b>	<b>0.0931</b>	<b>0.1086</b>	<b>1.3393</b>	<b>2.5200e-003</b>	<b>0.1932</b>	<b>1.9500e-003</b>	<b>0.1951</b>	<b>0.0512</b>	<b>1.7900e-003</b>	<b>0.0530</b>		<b>220.3643</b>	<b>220.3643</b>	<b>0.0127</b>		<b>220.6299</b>
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**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4914	11.2202	15.1513	0.0211		0.7862	0.7862		0.7862	0.7862	0.0000	2,176.9565	2,176.9565	0.6352		2,190.2948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4914</b>	<b>11.2202</b>	<b>15.1513</b>	<b>0.0211</b>		<b>0.7862</b>	<b>0.7862</b>		<b>0.7862</b>	<b>0.7862</b>	<b>0.0000</b>	<b>2,176.9565</b>	<b>2,176.9565</b>	<b>0.6352</b>		<b>2,190.2948</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0931	0.1086	1.3393	2.5200e-003	0.1932	1.9500e-003	0.1951	0.0512	1.7900e-003	0.0530		220.3643	220.3643	0.0127		220.6299
<b>Total</b>	<b>0.0931</b>	<b>0.1086</b>	<b>1.3393</b>	<b>2.5200e-003</b>	<b>0.1932</b>	<b>1.9500e-003</b>	<b>0.1951</b>	<b>0.0512</b>	<b>1.7900e-003</b>	<b>0.0530</b>		<b>220.3643</b>	<b>220.3643</b>	<b>0.0127</b>		<b>220.6299</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

- Increase Density
- Increase Diversity
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network
- Limit Parking Supply
- Unbundle Parking Cost
- Implement Trip Reduction Program
- Market Commute Trip Reduction Option
- Employee Vanpool/Shuttle
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive 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	18.1938	35.4469	155.9977	0.3042	19.4504	0.4767	19.9271	5.2006	0.4382	5.6388		26,784.2285	26,784.2285	1.1770		26,808.9450
Unmitigated	20.7445	52.4879	220.6156	0.4898	31.9600	0.7528	32.7128	8.5454	0.6920	9.2374		43,147.8916	43,147.8916	1.8161		43,186.0305

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	505.40	544.16	461.32	1,680,741	1,050,856
General Office Building	1,700.04	324.93	134.36	4,087,431	2,479,252
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	737.59	773.75	591.71	1,312,751	795,612
Strip Mall	1,999.28	1,896.42	921.60	4,205,813	2,549,347
User Defined Commercial	450.84	450.84	450.84	1,035,782	627,838
User Defined Commercial	338.13	338.13	338.13	776,837	470,878



Total	5,731.27	4,328.23	2,897.95	13,099,355	7,973,782
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### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.70	7.00	9.50	40.20	19.20	40.60	86	11	3
General Office Building	8.90	13.30	7.40	33.00	48.00	19.00	77	19	4
Enclosed Parking with Elevator	8.90	13.30	7.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	8.90	13.30	7.40	12.00	69.00	19.00	38	18	44
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15
User Defined Commercial	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15
User Defined Commercial	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.533598	0.058434	0.178244	0.125508	0.038944	0.006283	0.016425	0.031066	0.002453	0.003157	0.003691	0.000543	0.001655

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Natural Gas Mitigated	0.1646	1.4862	1.1853	8.9800e-003		0.1137	0.1137		0.1137	0.1137		1,795.1376	1,795.1376	0.0344	0.0329	1,806.0625

NaturalGas Unmitigated	0.2057	1.8578	1.4816	0.0112		0.1421	0.1421		0.1421	0.1421		2,243.9219	2,243.9219	0.0430	0.0411	2,257.5781
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## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4105.49	0.0443	0.4025	0.3381	2.4100e-003		0.0306	0.0306		0.0306	0.0306		482.9986	482.9986	9.2600e-003	8.8500e-003	485.9380
Quality Restaurant	12558.3	0.1354	1.2312	1.0342	7.3900e-003		0.0936	0.0936		0.0936	0.0936		1,477.4510	1,477.4510	0.0283	0.0271	1,486.4425
Strip Mall	210.101	2.2700e-003	0.0206	0.0173	1.2000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003		24.7178	24.7178	4.7000e-004	4.5000e-004	24.8682
User Defined Commercial	57.2877	6.2000e-004	5.6200e-003	4.7200e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.7397	6.7397	1.3000e-004	1.2000e-004	6.7807
User Defined Commercial	76.3836	8.2000e-004	7.4900e-003	6.2900e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004		8.9863	8.9863	1.7000e-004	1.6000e-004	9.0410
Apartments High Rise	2065.74	0.0223	0.1904	0.0810	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.0285	243.0285	4.6600e-003	4.4600e-003	244.5076
<b>Total</b>		<b>0.2057</b>	<b>1.8578</b>	<b>1.4816</b>	<b>0.0112</b>		<b>0.1421</b>	<b>0.1421</b>		<b>0.1421</b>	<b>0.1421</b>		<b>2,243.9219</b>	<b>2,243.9219</b>	<b>0.0430</b>	<b>0.0411</b>	<b>2,257.5781</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

General Office Building	3.28439	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.3988	386.3988	7.4100e-003	7.0800e-003	388.7504
Quality Restaurant	10.0467	0.1084	0.9850	0.8274	5.9100e-003		0.0749	0.0749		0.0749	0.0749		1,181.9608	1,181.9608	0.0227	0.0217	1,189.1540
Strip Mall	0.168081	1.8100e-003	0.0165	0.0138	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003		19.7743	19.7743	3.8000e-004	3.6000e-004	19.8946
User Defined Commercial	0.0458301	4.9000e-004	4.4900e-003	3.7700e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		5.3918	5.3918	1.0000e-004	1.0000e-004	5.4246
User Defined Commercial	0.0611068	6.6000e-004	5.9900e-003	5.0300e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		7.1890	7.1890	1.4000e-004	1.3000e-004	7.2328
Apartments High Rise	1.65259	0.0178	0.1523	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.4228	194.4228	3.7300e-003	3.5600e-003	195.6061
<b>Total</b>		<b>0.1646</b>	<b>1.4862</b>	<b>1.1853</b>	<b>8.9800e-003</b>		<b>0.1137</b>	<b>0.1137</b>		<b>0.1137</b>	<b>0.1137</b>		<b>1,795.1376</b>	<b>1,795.1376</b>	<b>0.0344</b>	<b>0.0329</b>	<b>1,806.0625</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.3853	0.0773	6.5524	3.4000e-004		0.1263	0.1263		0.1253	0.1253	0.0000	1,460.0105	1,460.0105	0.0406	0.0266	1,469.0942
Unmitigated	36.4410	0.5826	44.7460	0.0611		5.8401	5.8401		5.8392	5.8392	711.8858	1,379.5399	2,091.4257	2.1358	0.0483	2,151.2553

## 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	3.1512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1533					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	19.9147	0.5053	38.2008	0.0608		5.8055	5.8055		5.8046	5.8046	711.8858	1,368.0000	2,079.8858	2.1230	0.0483	2,139.4469
Landscaping	0.2218	0.0773	6.5452	3.4000e-004		0.0346	0.0346		0.0346	0.0346		11.5399	11.5399	0.0128		11.8084
<b>Total</b>	<b>36.4410</b>	<b>0.5826</b>	<b>44.7460</b>	<b>0.0611</b>		<b>5.8401</b>	<b>5.8401</b>		<b>5.8392</b>	<b>5.8392</b>	<b>711.8858</b>	<b>1,379.5399</b>	<b>2,091.4257</b>	<b>2.1358</b>	<b>0.0483</b>	<b>2,151.2553</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1533					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1328	1.0000e-005	7.2400e-003	0.0000		0.0917	0.0917		0.0908	0.0908	0.0000	1,448.4706	1,448.4706	0.0278	0.0266	1,457.2857
Landscaping	0.2218	0.0773	6.5452	3.4000e-004		0.0346	0.0346		0.0346	0.0346		11.5399	11.5399	0.0128		11.8084
<b>Total</b>	<b>14.3853</b>	<b>0.0773</b>	<b>6.5524</b>	<b>3.4000e-004</b>		<b>0.1263</b>	<b>0.1263</b>		<b>0.1253</b>	<b>0.1253</b>	<b>0.0000</b>	<b>1,460.0105</b>	<b>1,460.0105</b>	<b>0.0406</b>	<b>0.0266</b>	<b>1,469.0942</b>

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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**Melrose Triangle**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	137.10	1000sqft	1.00	137,100.00	0
User Defined Commercial	16.40	User Defined Unit	0.00	16,400.00	0
User Defined Commercial	12.30	User Defined Unit	0.00	12,300.00	0
Enclosed Parking with Elevator	923.00	Space	0.00	369,200.00	0
Quality Restaurant	8.20	1000sqft	0.19	8,200.00	0
Apartments High Rise	76.00	Dwelling Unit	0.82	76,000.00	217
Strip Mall	45.11	1000sqft	1.04	45,110.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2014
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Acreages adjusted to match total site area of 3.05 acres, parking is all subterranean.

Construction Phase - Construction schedule estimated based on a 33-month total and 9-month excavation for 4-story subterranean parking structure.

Off-road Equipment -

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Excavating 4 stories down will be equipment intensive.

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Trips and VMT - Haul trips set to 34,500 per the traffic study, trip lengths set to match previous analysis.

Demolition - Demolition area set as used in previous air quality analysis (2008).

Grading -

Architectural Coating - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Vehicle Trips - Set the weekday trip rates to match the traffic study peak day rates, left the Saturday and Sunday rates at the CalEEMod defaults. Set the Art Gallery & Design Showrooms (User Defined Commercial) all to match the traffic study peak day rates.

Area Coating - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Energy Use - Moved all energy use from nontitle-24 to Title-24. Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall.

Water And Wastewater - Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall. Set outdoor water use to zero for all but the strip mall since other land uses will not have landscaping.

Solid Waste - Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall. Set the office waste generation rate to match the strip mall since there will be simple offices.

Construction Off-road Equipment Mitigation - The only dust control implemented is what is mandated by SCAQMD Rule 403, all diesel equipment will meet EPA Tier 2 level.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Landscape Equipment -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50





tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	230.00	411.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	175.00
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	5.00	20.00
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tblEnergyUse	NT24E	0.19	0.00
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tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	NT24NG	0.49	0.00
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tblEnergyUse	T24E	5.62	10.24
tblEnergyUse	T24E	3.92	4.11
tblEnergyUse	T24E	9.91	38.07
tblEnergyUse	T24E	4.90	8.13
tblEnergyUse	T24E	0.00	8.13
tblEnergyUse	T24NG	8,201.59	9,921.00
tblEnergyUse	T24NG	10.54	10.93
tblEnergyUse	T24NG	45.23	559.00
tblEnergyUse	T24NG	1.21	1.70
tblEnergyUse	T24NG	0.00	1.70
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tblLandUse	LandUseSquareFeet	0.00	16,400.00
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tblLandUse	LotAcreage	1.23	0.82
tblLandUse	LotAcreage	8.31	0.00
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tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
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tblTripsAndVMT	VendorTripLength	6.90	7.40
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tblTripsAndVMT	VendorTripLength	6.90	7.40
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tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
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tblVehicleEF	LDA	0.06	0.05
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tblVehicleEF	LDA	2.6930e-003	2.6280e-003
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tblVehicleEF	LDA	0.06	0.05
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tblVehicleEF	LDT1	5.6590e-003	4.9510e-003
tblVehicleEF	LDT1	5.3950e-003	4.8940e-003
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tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	1.30	1.19

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tblVehicleEF	LDT1	0.15	0.14
tblVehicleEF	LDT1	0.17	0.13
tblVehicleEF	LDT1	1.30	1.19
tblVehicleEF	LDT1	0.54	0.45
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	4.16	3.47
tblVehicleEF	LDT1	5.09	4.30
tblVehicleEF	LDT1	406.73	383.78
tblVehicleEF	LDT1	78.22	73.87
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.33	0.28
tblVehicleEF	LDT1	0.33	0.29
tblVehicleEF	LDT1	6.1870e-003	5.3800e-003
tblVehicleEF	LDT1	5.8970e-003	5.3140e-003
tblVehicleEF	LDT1	5.6590e-003	4.9510e-003
tblVehicleEF	LDT1	5.3950e-003	4.8940e-003
tblVehicleEF	LDT1	0.31	0.29
tblVehicleEF	LDT1	0.38	0.35
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	0.14	0.10
tblVehicleEF	LDT1	1.20	1.10
tblVehicleEF	LDT1	0.43	0.36
tblVehicleEF	LDT1	4.4950e-003	4.5020e-003
tblVehicleEF	LDT1	9.3300e-004	9.1900e-004

tblVehicleEF	LDT1	0.31	0.29
tblVehicleEF	LDT1	0.38	0.35
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	0.17	0.13
tblVehicleEF	LDT1	1.20	1.10
tblVehicleEF	LDT1	0.46	0.38
tblVehicleEF	LDT1	0.04	0.03
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	3.84	3.17
tblVehicleEF	LDT1	6.68	5.67
tblVehicleEF	LDT1	384.95	363.09
tblVehicleEF	LDT1	78.22	73.87
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.37	0.31
tblVehicleEF	LDT1	0.37	0.31
tblVehicleEF	LDT1	6.1870e-003	5.3800e-003
tblVehicleEF	LDT1	5.8970e-003	5.3140e-003
tblVehicleEF	LDT1	5.6590e-003	4.9510e-003
tblVehicleEF	LDT1	5.3950e-003	4.8940e-003
tblVehicleEF	LDT1	0.21	0.19
tblVehicleEF	LDT1	0.42	0.39
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	0.13	0.10
tblVehicleEF	LDT1	1.55	1.42
tblVehicleEF	LDT1	0.52	0.43
tblVehicleEF	LDT1	4.2510e-003	4.2550e-003
tblVehicleEF	LDT1	9.6000e-004	9.4200e-004
tblVehicleEF	LDT1	0.21	0.19
tblVehicleEF	LDT1	0.42	0.39
tblVehicleEF	LDT1	0.14	0.14

tblVehicleEF	LDT1	0.17	0.13
tblVehicleEF	LDT1	1.55	1.42
tblVehicleEF	LDT1	0.56	0.46
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	2.09	1.70
tblVehicleEF	LDT2	3.90	3.16
tblVehicleEF	LDT2	468.21	442.97
tblVehicleEF	LDT2	93.61	88.90
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.25	0.20
tblVehicleEF	LDT2	0.38	0.30
tblVehicleEF	LDT2	2.5700e-003	2.2860e-003
tblVehicleEF	LDT2	2.9410e-003	2.8890e-003
tblVehicleEF	LDT2	2.3500e-003	2.1010e-003
tblVehicleEF	LDT2	2.6960e-003	2.6610e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.18	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.60	0.54
tblVehicleEF	LDT2	0.30	0.24
tblVehicleEF	LDT2	5.0750e-003	5.0780e-003
tblVehicleEF	LDT2	1.0680e-003	1.0560e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.18	0.17
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.60	0.54
tblVehicleEF	LDT2	0.32	0.25

tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	2.24	1.83
tblVehicleEF	LDT2	3.09	2.50
tblVehicleEF	LDT2	488.41	462.14
tblVehicleEF	LDT2	93.61	88.90
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.22	0.17
tblVehicleEF	LDT2	0.35	0.28
tblVehicleEF	LDT2	2.5700e-003	2.2860e-003
tblVehicleEF	LDT2	2.9410e-003	2.8890e-003
tblVehicleEF	LDT2	2.3500e-003	2.1010e-003
tblVehicleEF	LDT2	2.6960e-003	2.6610e-003
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.19	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.56	0.50
tblVehicleEF	LDT2	0.26	0.20
tblVehicleEF	LDT2	5.2950e-003	5.3000e-003
tblVehicleEF	LDT2	1.0540e-003	1.0450e-003
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.19	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.09	0.07
tblVehicleEF	LDT2	0.56	0.50
tblVehicleEF	LDT2	0.28	0.22
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	2.03	1.65

tblVehicleEF	LDT2	4.08	3.30
tblVehicleEF	LDT2	460.73	435.87
tblVehicleEF	LDT2	93.61	88.90
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.24	0.19
tblVehicleEF	LDT2	0.38	0.30
tblVehicleEF	LDT2	2.5700e-003	2.2860e-003
tblVehicleEF	LDT2	2.9410e-003	2.8890e-003
tblVehicleEF	LDT2	2.3500e-003	2.1010e-003
tblVehicleEF	LDT2	2.6960e-003	2.6610e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.06	0.04
tblVehicleEF	LDT2	0.71	0.63
tblVehicleEF	LDT2	0.31	0.25
tblVehicleEF	LDT2	4.9930e-003	4.9960e-003
tblVehicleEF	LDT2	1.0710e-003	1.0590e-003
tblVehicleEF	LDT2	0.08	0.07
tblVehicleEF	LDT2	0.21	0.19
tblVehicleEF	LDT2	0.07	0.06
tblVehicleEF	LDT2	0.08	0.06
tblVehicleEF	LDT2	0.71	0.63
tblVehicleEF	LDT2	0.33	0.26
tblVehicleEF	LHD1	1.3770e-003	1.3670e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.20	0.20
tblVehicleEF	LHD1	2.19	1.82
tblVehicleEF	LHD1	6.49	5.80

tblVehicleEF	LHD1	8.22	8.05
tblVehicleEF	LHD1	602.22	592.34
tblVehicleEF	LHD1	48.16	47.48
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.34	1.16
tblVehicleEF	LHD1	1.68	1.62
tblVehicleEF	LHD1	3.7400e-004	3.6500e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	8.7210e-003	8.7170e-003
tblVehicleEF	LHD1	8.3690e-003	7.5590e-003
tblVehicleEF	LHD1	1.7820e-003	1.5190e-003
tblVehicleEF	LHD1	3.4400e-004	3.3600e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.1800e-003	2.1790e-003
tblVehicleEF	LHD1	7.7020e-003	6.9580e-003
tblVehicleEF	LHD1	1.6270e-003	1.3900e-003
tblVehicleEF	LHD1	3.3330e-003	3.1330e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9270e-003	1.8880e-003
tblVehicleEF	LHD1	0.15	0.13
tblVehicleEF	LHD1	0.43	0.42
tblVehicleEF	LHD1	0.60	0.54
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.0980e-003	6.1160e-003
tblVehicleEF	LHD1	6.0900e-004	5.9900e-004
tblVehicleEF	LHD1	3.3330e-003	3.1330e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03



tblVehicleEF	LHD1	1.9270e-003	1.8880e-003
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.43	0.42
tblVehicleEF	LHD1	0.64	0.58
tblVehicleEF	LHD1	1.3770e-003	1.3670e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.20	0.20
tblVehicleEF	LHD1	2.22	1.85
tblVehicleEF	LHD1	5.25	4.69
tblVehicleEF	LHD1	8.22	8.05
tblVehicleEF	LHD1	602.22	592.34
tblVehicleEF	LHD1	48.16	47.48
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.23	1.07
tblVehicleEF	LHD1	1.61	1.56
tblVehicleEF	LHD1	3.7400e-004	3.6500e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	8.7210e-003	8.7170e-003
tblVehicleEF	LHD1	8.3690e-003	7.5590e-003
tblVehicleEF	LHD1	1.7820e-003	1.5190e-003
tblVehicleEF	LHD1	3.4400e-004	3.3600e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.1800e-003	2.1790e-003
tblVehicleEF	LHD1	7.7020e-003	6.9580e-003
tblVehicleEF	LHD1	1.6270e-003	1.3900e-003
tblVehicleEF	LHD1	5.0030e-003	4.6870e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	2.8300e-003	2.7320e-003
tblVehicleEF	LHD1	0.16	0.13
tblVehicleEF	LHD1	0.42	0.41
tblVehicleEF	LHD1	0.52	0.48
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.0990e-003	6.1160e-003
tblVehicleEF	LHD1	5.8700e-004	5.8000e-004
tblVehicleEF	LHD1	5.0030e-003	4.6870e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.8300e-003	2.7320e-003
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.42	0.41
tblVehicleEF	LHD1	0.56	0.51
tblVehicleEF	LHD1	1.3770e-003	1.3670e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	0.20	0.20
tblVehicleEF	LHD1	2.18	1.81
tblVehicleEF	LHD1	6.71	5.99
tblVehicleEF	LHD1	8.22	8.05
tblVehicleEF	LHD1	602.22	592.34
tblVehicleEF	LHD1	48.16	47.48
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.31	1.13
tblVehicleEF	LHD1	1.69	1.63
tblVehicleEF	LHD1	3.7400e-004	3.6500e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	8.7210e-003	8.7170e-003

tblVehicleEF	LHD1	8.3690e-003	7.5590e-003
tblVehicleEF	LHD1	1.7820e-003	1.5190e-003
tblVehicleEF	LHD1	3.4400e-004	3.3600e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.1800e-003	2.1790e-003
tblVehicleEF	LHD1	7.7020e-003	6.9580e-003
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tblVehicleEF	LHD1	3.6840e-003	3.4110e-003
tblVehicleEF	LHD1	0.09	0.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9440e-003	1.8900e-003
tblVehicleEF	LHD1	0.15	0.13
tblVehicleEF	LHD1	0.47	0.46
tblVehicleEF	LHD1	0.61	0.55
tblVehicleEF	LHD1	8.7000e-005	8.6000e-005
tblVehicleEF	LHD1	6.0980e-003	6.1160e-003
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tblVehicleEF	LHD1	3.6840e-003	3.4110e-003
tblVehicleEF	LHD1	0.09	0.09
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.9440e-003	1.8900e-003
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.47	0.46
tblVehicleEF	LHD1	0.65	0.59
tblVehicleEF	LHD2	1.1150e-003	1.1080e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	1.65	1.27
tblVehicleEF	LHD2	4.59	3.88

tblVehicleEF	LHD2	9.01	8.82
tblVehicleEF	LHD2	576.77	566.57
tblVehicleEF	LHD2	35.55	34.81
tblVehicleEF	LHD2	6.2460e-003	6.2830e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	2.19	1.89
tblVehicleEF	LHD2	1.19	1.14
tblVehicleEF	LHD2	9.3000e-004	9.1400e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.7170e-003	9.7040e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3370e-003	1.0190e-003
tblVehicleEF	LHD2	8.5600e-004	8.4100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.4290e-003	2.4260e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.1950e-003	9.2000e-004
tblVehicleEF	LHD2	2.4100e-003	2.1190e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3700e-003	1.2630e-003
tblVehicleEF	LHD2	0.14	0.11
tblVehicleEF	LHD2	0.34	0.32
tblVehicleEF	LHD2	0.42	0.36
tblVehicleEF	LHD2	5.7700e-003	5.7800e-003
tblVehicleEF	LHD2	4.4600e-004	4.3200e-004
tblVehicleEF	LHD2	2.4100e-003	2.1190e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3700e-003	1.2630e-003

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tblVehicleEF	LHD2	0.34	0.32
tblVehicleEF	LHD2	0.45	0.39
tblVehicleEF	LHD2	1.1150e-003	1.1080e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	1.66	1.28
tblVehicleEF	LHD2	3.76	3.17
tblVehicleEF	LHD2	9.01	8.82
tblVehicleEF	LHD2	576.77	566.57
tblVehicleEF	LHD2	35.55	34.81
tblVehicleEF	LHD2	6.2460e-003	6.2830e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	2.05	1.77
tblVehicleEF	LHD2	1.15	1.10
tblVehicleEF	LHD2	9.3000e-004	9.1400e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.7170e-003	9.7040e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3370e-003	1.0190e-003
tblVehicleEF	LHD2	8.5600e-004	8.4100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.4290e-003	2.4260e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.1950e-003	9.2000e-004
tblVehicleEF	LHD2	3.6230e-003	3.1700e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.0270e-003	1.8350e-003

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tblVehicleEF	LHD2	0.33	0.31
tblVehicleEF	LHD2	0.37	0.32
tblVehicleEF	LHD2	5.7700e-003	5.7800e-003
tblVehicleEF	LHD2	4.3100e-004	4.2000e-004
tblVehicleEF	LHD2	3.6230e-003	3.1700e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.0270e-003	1.8350e-003
tblVehicleEF	LHD2	0.16	0.13
tblVehicleEF	LHD2	0.33	0.31
tblVehicleEF	LHD2	0.40	0.34
tblVehicleEF	LHD2	1.1150e-003	1.1080e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.16	0.16
tblVehicleEF	LHD2	1.64	1.26
tblVehicleEF	LHD2	4.74	4.00
tblVehicleEF	LHD2	9.01	8.82
tblVehicleEF	LHD2	576.77	566.57
tblVehicleEF	LHD2	35.55	34.81
tblVehicleEF	LHD2	6.2460e-003	6.2830e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	2.15	1.85
tblVehicleEF	LHD2	1.20	1.15
tblVehicleEF	LHD2	9.3000e-004	9.1400e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.7170e-003	9.7040e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3370e-003	1.0190e-003

tblVehicleEF	LHD2	8.5600e-004	8.4100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.4290e-003	2.4260e-003
tblVehicleEF	LHD2	0.02	0.01
tblVehicleEF	LHD2	1.1950e-003	9.2000e-004
tblVehicleEF	LHD2	2.6660e-003	2.2990e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3740e-003	1.2530e-003
tblVehicleEF	LHD2	0.14	0.11
tblVehicleEF	LHD2	0.38	0.35
tblVehicleEF	LHD2	0.43	0.37
tblVehicleEF	LHD2	5.7700e-003	5.7800e-003
tblVehicleEF	LHD2	4.4800e-004	4.3500e-004
tblVehicleEF	LHD2	2.6660e-003	2.2990e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	1.3740e-003	1.2530e-003
tblVehicleEF	LHD2	0.16	0.13
tblVehicleEF	LHD2	0.38	0.35
tblVehicleEF	LHD2	0.46	0.40
tblVehicleEF	MCY	22.89	21.17
tblVehicleEF	MCY	9.71	9.82
tblVehicleEF	MCY	147.17	147.81
tblVehicleEF	MCY	46.38	43.76
tblVehicleEF	MCY	3.6960e-003	3.6910e-003
tblVehicleEF	MCY	1.19	1.17
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	0.04	0.04
tblVehicleEF	MCY	7.0000e-004	5.0600e-004

tblVehicleEF	MCY	2.3630e-003	1.6970e-003
tblVehicleEF	MCY	0.02	0.02
tblVehicleEF	MCY	5.6000e-004	4.1100e-004
tblVehicleEF	MCY	1.8490e-003	1.3480e-003
tblVehicleEF	MCY	0.95	0.93
tblVehicleEF	MCY	0.50	0.46
tblVehicleEF	MCY	0.57	0.55
tblVehicleEF	MCY	2.51	2.43
tblVehicleEF	MCY	1.88	1.57
tblVehicleEF	MCY	2.17	2.12
tblVehicleEF	MCY	1.9330e-003	1.9410e-003
tblVehicleEF	MCY	6.9200e-004	6.7500e-004
tblVehicleEF	MCY	0.95	0.93
tblVehicleEF	MCY	0.50	0.46
tblVehicleEF	MCY	0.57	0.55
tblVehicleEF	MCY	2.76	2.67
tblVehicleEF	MCY	1.88	1.57
tblVehicleEF	MCY	2.34	2.28
tblVehicleEF	MCY	21.75	20.17
tblVehicleEF	MCY	8.68	8.72
tblVehicleEF	MCY	147.17	147.81
tblVehicleEF	MCY	46.38	43.76
tblVehicleEF	MCY	3.6960e-003	3.6910e-003
tblVehicleEF	MCY	1.03	1.02
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	0.04	0.04
tblVehicleEF	MCY	7.0000e-004	5.0600e-004
tblVehicleEF	MCY	2.3630e-003	1.6970e-003
tblVehicleEF	MCY	0.02	0.02
tblVehicleEF	MCY	5.6000e-004	4.1100e-004



tblVehicleEF	MCY	1.8490e-003	1.3480e-003
tblVehicleEF	MCY	1.53	1.50
tblVehicleEF	MCY	0.54	0.50
tblVehicleEF	MCY	0.95	0.92
tblVehicleEF	MCY	2.42	2.36
tblVehicleEF	MCY	1.75	1.45
tblVehicleEF	MCY	1.89	1.86
tblVehicleEF	MCY	1.9120e-003	1.9230e-003
tblVehicleEF	MCY	6.6700e-004	6.4900e-004
tblVehicleEF	MCY	1.53	1.50
tblVehicleEF	MCY	0.54	0.50
tblVehicleEF	MCY	0.95	0.92
tblVehicleEF	MCY	2.66	2.59
tblVehicleEF	MCY	1.75	1.45
tblVehicleEF	MCY	2.04	1.99
tblVehicleEF	MCY	23.10	21.35
tblVehicleEF	MCY	9.89	10.02
tblVehicleEF	MCY	147.17	147.81
tblVehicleEF	MCY	46.38	43.76
tblVehicleEF	MCY	3.6960e-003	3.6910e-003
tblVehicleEF	MCY	1.16	1.14
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	0.04	0.04
tblVehicleEF	MCY	7.0000e-004	5.0600e-004
tblVehicleEF	MCY	2.3630e-003	1.6970e-003
tblVehicleEF	MCY	0.02	0.02
tblVehicleEF	MCY	5.6000e-004	4.1100e-004
tblVehicleEF	MCY	1.8490e-003	1.3480e-003
tblVehicleEF	MCY	1.05	1.02
tblVehicleEF	MCY	0.65	0.59

tblVehicleEF	MCY	0.55	0.53
tblVehicleEF	MCY	2.53	2.45
tblVehicleEF	MCY	2.17	1.84
tblVehicleEF	MCY	2.23	2.17
tblVehicleEF	MCY	1.9360e-003	1.9440e-003
tblVehicleEF	MCY	6.9600e-004	6.7900e-004
tblVehicleEF	MCY	1.05	1.02
tblVehicleEF	MCY	0.65	0.59
tblVehicleEF	MCY	0.55	0.53
tblVehicleEF	MCY	2.78	2.69
tblVehicleEF	MCY	2.17	1.84
tblVehicleEF	MCY	2.40	2.34
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.87	2.56
tblVehicleEF	MDV	5.80	5.19
tblVehicleEF	MDV	606.41	580.22
tblVehicleEF	MDV	120.57	115.97
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.37	0.32
tblVehicleEF	MDV	0.56	0.49
tblVehicleEF	MDV	2.8070e-003	2.6430e-003
tblVehicleEF	MDV	3.5390e-003	3.4430e-003
tblVehicleEF	MDV	2.5760e-003	2.4310e-003
tblVehicleEF	MDV	3.2530e-003	3.1710e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.21
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.09	0.08
tblVehicleEF	MDV	0.64	0.65

tblVehicleEF	MDV	0.51	0.45
tblVehicleEF	MDV	6.4380e-003	6.4590e-003
tblVehicleEF	MDV	1.3650e-003	1.3580e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.21
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.13	0.11
tblVehicleEF	MDV	0.64	0.65
tblVehicleEF	MDV	0.54	0.48
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	3.08	2.75
tblVehicleEF	MDV	4.60	4.11
tblVehicleEF	MDV	632.24	604.99
tblVehicleEF	MDV	120.57	115.97
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.33	0.28
tblVehicleEF	MDV	0.52	0.46
tblVehicleEF	MDV	2.8070e-003	2.6430e-003
tblVehicleEF	MDV	3.5390e-003	3.4430e-003
tblVehicleEF	MDV	2.5760e-003	2.4310e-003
tblVehicleEF	MDV	3.2530e-003	3.1710e-003
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.22
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.09	0.08
tblVehicleEF	MDV	0.60	0.61
tblVehicleEF	MDV	0.43	0.38
tblVehicleEF	MDV	6.7150e-003	6.7370e-003
tblVehicleEF	MDV	1.3430e-003	1.3390e-003

tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.22
tblVehicleEF	MDV	0.12	0.12
tblVehicleEF	MDV	0.13	0.11
tblVehicleEF	MDV	0.60	0.61
tblVehicleEF	MDV	0.46	0.41
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	2.79	2.48
tblVehicleEF	MDV	6.06	5.43
tblVehicleEF	MDV	596.84	571.04
tblVehicleEF	MDV	120.57	115.97
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.36	0.31
tblVehicleEF	MDV	0.57	0.50
tblVehicleEF	MDV	2.8070e-003	2.6430e-003
tblVehicleEF	MDV	3.5390e-003	3.4430e-003
tblVehicleEF	MDV	2.5760e-003	2.4310e-003
tblVehicleEF	MDV	3.2530e-003	3.1710e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.23
tblVehicleEF	MDV	0.08	0.08
tblVehicleEF	MDV	0.09	0.08
tblVehicleEF	MDV	0.75	0.76
tblVehicleEF	MDV	0.53	0.46
tblVehicleEF	MDV	6.3360e-003	6.3560e-003
tblVehicleEF	MDV	1.3690e-003	1.3620e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.23
tblVehicleEF	MDV	0.08	0.08

tblVehicleEF	MDV	0.12	0.11
tblVehicleEF	MDV	0.75	0.76
tblVehicleEF	MDV	0.56	0.50
tblVehicleEF	MH	7.77	5.14
tblVehicleEF	MH	11.97	9.68
tblVehicleEF	MH	670.28	658.34
tblVehicleEF	MH	35.76	33.03
tblVehicleEF	MH	1.6450e-003	1.6550e-003
tblVehicleEF	MH	1.75	1.49
tblVehicleEF	MH	1.03	0.91
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	8.4600e-003	8.4530e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.6470e-003	1.7560e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1150e-003	2.1130e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.2420e-003	1.5230e-003
tblVehicleEF	MH	1.54	1.31
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.63	0.54
tblVehicleEF	MH	0.25	0.17
tblVehicleEF	MH	2.33	2.19
tblVehicleEF	MH	0.78	0.59
tblVehicleEF	MH	6.8640e-003	6.8380e-003
tblVehicleEF	MH	5.7500e-004	5.1200e-004
tblVehicleEF	MH	1.54	1.31
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.63	0.54
tblVehicleEF	MH	0.29	0.20

tblVehicleEF	MH	2.33	2.19
tblVehicleEF	MH	0.83	0.63
tblVehicleEF	MH	7.76	5.17
tblVehicleEF	MH	9.56	7.68
tblVehicleEF	MH	670.28	658.34
tblVehicleEF	MH	35.76	33.03
tblVehicleEF	MH	1.6450e-003	1.6550e-003
tblVehicleEF	MH	1.59	1.36
tblVehicleEF	MH	0.98	0.87
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	8.4600e-003	8.4530e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.6470e-003	1.7560e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1150e-003	2.1130e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.2420e-003	1.5230e-003
tblVehicleEF	MH	2.20	1.87
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.88	0.75
tblVehicleEF	MH	0.25	0.17
tblVehicleEF	MH	2.27	2.14
tblVehicleEF	MH	0.64	0.49
tblVehicleEF	MH	6.8630e-003	6.8380e-003
tblVehicleEF	MH	5.3300e-004	4.7800e-004
tblVehicleEF	MH	2.20	1.87
tblVehicleEF	MH	0.11	0.09
tblVehicleEF	MH	0.88	0.75
tblVehicleEF	MH	0.29	0.20
tblVehicleEF	MH	2.27	2.14

tblVehicleEF	MH	0.69	0.53
tblVehicleEF	MH	7.77	5.13
tblVehicleEF	MH	12.41	10.05
tblVehicleEF	MH	670.28	658.34
tblVehicleEF	MH	35.76	33.03
tblVehicleEF	MH	1.6450e-003	1.6550e-003
tblVehicleEF	MH	1.71	1.46
tblVehicleEF	MH	1.04	0.91
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	8.4600e-003	8.4530e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	2.6470e-003	1.7560e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.1150e-003	2.1130e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.2420e-003	1.5230e-003
tblVehicleEF	MH	1.82	1.53
tblVehicleEF	MH	0.14	0.12
tblVehicleEF	MH	0.67	0.57
tblVehicleEF	MH	0.25	0.17
tblVehicleEF	MH	2.46	2.31
tblVehicleEF	MH	0.80	0.61
tblVehicleEF	MH	6.8640e-003	6.8380e-003
tblVehicleEF	MH	5.8300e-004	5.1800e-004
tblVehicleEF	MH	1.82	1.53
tblVehicleEF	MH	0.14	0.12
tblVehicleEF	MH	0.67	0.57
tblVehicleEF	MH	0.29	0.20
tblVehicleEF	MH	2.46	2.31
tblVehicleEF	MH	0.86	0.65

tblVehicleEF	MHD	9.1490e-003	7.4170e-003
tblVehicleEF	MHD	7.6140e-003	5.3470e-003
tblVehicleEF	MHD	1.98	1.82
tblVehicleEF	MHD	1.81	1.29
tblVehicleEF	MHD	23.70	20.16
tblVehicleEF	MHD	606.65	606.04
tblVehicleEF	MHD	1,015.49	994.23
tblVehicleEF	MHD	62.16	57.28
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.20	6.27
tblVehicleEF	MHD	4.49	3.19
tblVehicleEF	MHD	2.37	2.11
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.08
tblVehicleEF	MHD	4.5660e-003	3.1220e-003
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.7920e-003	2.7960e-003
tblVehicleEF	MHD	0.11	0.07
tblVehicleEF	MHD	3.8030e-003	2.6590e-003
tblVehicleEF	MHD	3.7860e-003	3.0790e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.20	0.16
tblVehicleEF	MHD	2.2230e-003	1.8810e-003
tblVehicleEF	MHD	0.22	0.16
tblVehicleEF	MHD	0.67	0.55
tblVehicleEF	MHD	1.66	1.33
tblVehicleEF	MHD	5.8760e-003	5.9920e-003



tblVehicleEF	MHD	9.9130e-003	9.9000e-003
tblVehicleEF	MHD	1.0540e-003	9.5100e-004
tblVehicleEF	MHD	3.7860e-003	3.0790e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.22	0.18
tblVehicleEF	MHD	2.2230e-003	1.8810e-003
tblVehicleEF	MHD	0.26	0.18
tblVehicleEF	MHD	0.67	0.55
tblVehicleEF	MHD	1.78	1.42
tblVehicleEF	MHD	8.6220e-003	6.9900e-003
tblVehicleEF	MHD	7.6140e-003	5.3470e-003
tblVehicleEF	MHD	1.44	1.33
tblVehicleEF	MHD	1.81	1.30
tblVehicleEF	MHD	19.59	16.49
tblVehicleEF	MHD	642.69	642.05
tblVehicleEF	MHD	1,015.49	994.23
tblVehicleEF	MHD	62.16	57.28
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.43	6.47
tblVehicleEF	MHD	4.22	3.00
tblVehicleEF	MHD	2.27	2.03
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.08
tblVehicleEF	MHD	4.5660e-003	3.1220e-003
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.7920e-003	2.7960e-003
tblVehicleEF	MHD	0.11	0.07

tblVehicleEF	MHD	3.8030e-003	2.6590e-003
tblVehicleEF	MHD	5.7560e-003	4.6580e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.19	0.15
tblVehicleEF	MHD	3.3540e-003	2.7850e-003
tblVehicleEF	MHD	0.22	0.16
tblVehicleEF	MHD	0.65	0.53
tblVehicleEF	MHD	1.43	1.15
tblVehicleEF	MHD	6.2250e-003	6.3480e-003
tblVehicleEF	MHD	9.9130e-003	9.9000e-003
tblVehicleEF	MHD	9.8300e-004	8.8800e-004
tblVehicleEF	MHD	5.7560e-003	4.6580e-003
tblVehicleEF	MHD	0.17	0.13
tblVehicleEF	MHD	0.21	0.17
tblVehicleEF	MHD	3.3540e-003	2.7850e-003
tblVehicleEF	MHD	0.26	0.18
tblVehicleEF	MHD	0.65	0.53
tblVehicleEF	MHD	1.53	1.23
tblVehicleEF	MHD	9.8770e-003	8.0070e-003
tblVehicleEF	MHD	7.6140e-003	5.3470e-003
tblVehicleEF	MHD	2.73	2.51
tblVehicleEF	MHD	1.81	1.29
tblVehicleEF	MHD	24.49	20.87
tblVehicleEF	MHD	556.87	556.32
tblVehicleEF	MHD	1,015.49	994.23
tblVehicleEF	MHD	62.16	57.28
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	6.88	5.99
tblVehicleEF	MHD	4.41	3.13
tblVehicleEF	MHD	2.39	2.13

tblVehicleEF	MHD	0.05	0.03
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.12	0.08
tblVehicleEF	MHD	4.5660e-003	3.1220e-003
tblVehicleEF	MHD	0.05	0.03
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.7920e-003	2.7960e-003
tblVehicleEF	MHD	0.11	0.07
tblVehicleEF	MHD	3.8030e-003	2.6590e-003
tblVehicleEF	MHD	4.2380e-003	3.3880e-003
tblVehicleEF	MHD	0.21	0.15
tblVehicleEF	MHD	0.21	0.17
tblVehicleEF	MHD	2.2660e-003	1.8990e-003
tblVehicleEF	MHD	0.22	0.16
tblVehicleEF	MHD	0.73	0.60
tblVehicleEF	MHD	1.71	1.37
tblVehicleEF	MHD	5.3940e-003	5.5000e-003
tblVehicleEF	MHD	9.9130e-003	9.9000e-003
tblVehicleEF	MHD	1.0680e-003	9.6300e-004
tblVehicleEF	MHD	4.2380e-003	3.3880e-003
tblVehicleEF	MHD	0.21	0.15
tblVehicleEF	MHD	0.24	0.20
tblVehicleEF	MHD	2.2660e-003	1.8990e-003
tblVehicleEF	MHD	0.26	0.18
tblVehicleEF	MHD	0.73	0.60
tblVehicleEF	MHD	1.83	1.46
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	3.4320e-003	3.2660e-003
tblVehicleEF	OBUS	2.30	2.36

tblVehicleEF	OBUS	1.74	1.37
tblVehicleEF	OBUS	11.22	10.33
tblVehicleEF	OBUS	573.90	571.35
tblVehicleEF	OBUS	1,120.43	1,112.31
tblVehicleEF	OBUS	37.05	35.72
tblVehicleEF	OBUS	2.4260e-003	2.4530e-003
tblVehicleEF	OBUS	7.28	5.94
tblVehicleEF	OBUS	5.80	4.26
tblVehicleEF	OBUS	1.53	1.43
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.06
tblVehicleEF	OBUS	1.1480e-003	8.8300e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6200e-003	2.6430e-003
tblVehicleEF	OBUS	0.09	0.05
tblVehicleEF	OBUS	1.0010e-003	7.8600e-004
tblVehicleEF	OBUS	9.2800e-004	9.3000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.49	0.41
tblVehicleEF	OBUS	4.5700e-004	4.8600e-004
tblVehicleEF	OBUS	0.21	0.16
tblVehicleEF	OBUS	0.29	0.30
tblVehicleEF	OBUS	0.71	0.64
tblVehicleEF	OBUS	5.5590e-003	5.6490e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.7400e-004	5.5200e-004
tblVehicleEF	OBUS	9.2800e-004	9.3000e-004

tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.56	0.47
tblVehicleEF	OBUS	4.5700e-004	4.8600e-004
tblVehicleEF	OBUS	0.25	0.18
tblVehicleEF	OBUS	0.29	0.30
tblVehicleEF	OBUS	0.76	0.69
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	3.4320e-003	3.2660e-003
tblVehicleEF	OBUS	1.67	1.72
tblVehicleEF	OBUS	1.76	1.38
tblVehicleEF	OBUS	9.14	8.38
tblVehicleEF	OBUS	607.99	605.30
tblVehicleEF	OBUS	1,120.43	1,112.31
tblVehicleEF	OBUS	37.05	35.72
tblVehicleEF	OBUS	2.4260e-003	2.4530e-003
tblVehicleEF	OBUS	7.51	6.13
tblVehicleEF	OBUS	5.46	4.01
tblVehicleEF	OBUS	1.47	1.38
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.06
tblVehicleEF	OBUS	1.1480e-003	8.8300e-004
tblVehicleEF	OBUS	0.05	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6200e-003	2.6430e-003
tblVehicleEF	OBUS	0.09	0.05
tblVehicleEF	OBUS	1.0010e-003	7.8600e-004
tblVehicleEF	OBUS	1.3450e-003	1.3440e-003
tblVehicleEF	OBUS	0.03	0.03

tblVehicleEF	OBUS	0.46	0.39
tblVehicleEF	OBUS	6.6000e-004	6.8700e-004
tblVehicleEF	OBUS	0.21	0.16
tblVehicleEF	OBUS	0.28	0.29
tblVehicleEF	OBUS	0.62	0.57
tblVehicleEF	OBUS	5.8890e-003	5.9840e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.3900e-004	5.1900e-004
tblVehicleEF	OBUS	1.3450e-003	1.3440e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.44
tblVehicleEF	OBUS	6.6000e-004	6.8700e-004
tblVehicleEF	OBUS	0.25	0.18
tblVehicleEF	OBUS	0.28	0.29
tblVehicleEF	OBUS	0.66	0.60
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	3.4320e-003	3.2660e-003
tblVehicleEF	OBUS	3.17	3.26
tblVehicleEF	OBUS	1.74	1.36
tblVehicleEF	OBUS	11.63	10.71
tblVehicleEF	OBUS	526.81	524.48
tblVehicleEF	OBUS	1,120.43	1,112.31
tblVehicleEF	OBUS	37.05	35.72
tblVehicleEF	OBUS	2.4260e-003	2.4530e-003
tblVehicleEF	OBUS	6.96	5.67
tblVehicleEF	OBUS	5.70	4.19
tblVehicleEF	OBUS	1.54	1.45
tblVehicleEF	OBUS	0.07	0.02
tblVehicleEF	OBUS	0.09	0.10
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	0.10	0.06
tblVehicleEF	OBUS	1.1480e-003	8.8300e-004
tblVehicleEF	OBUS	0.07	0.02
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6200e-003	2.6430e-003
tblVehicleEF	OBUS	0.09	0.05
tblVehicleEF	OBUS	1.0010e-003	7.8600e-004
tblVehicleEF	OBUS	1.0220e-003	9.9400e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.45
tblVehicleEF	OBUS	4.6000e-004	4.8100e-004
tblVehicleEF	OBUS	0.21	0.16
tblVehicleEF	OBUS	0.31	0.32
tblVehicleEF	OBUS	0.73	0.66
tblVehicleEF	OBUS	5.1030e-003	5.1850e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.8100e-004	5.5800e-004
tblVehicleEF	OBUS	1.0220e-003	9.9400e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.60	0.51
tblVehicleEF	OBUS	4.6000e-004	4.8100e-004
tblVehicleEF	OBUS	0.25	0.18
tblVehicleEF	OBUS	0.31	0.32
tblVehicleEF	OBUS	0.78	0.70
tblVehicleEF	SBUS	5.3980e-003	5.4360e-003
tblVehicleEF	SBUS	7.6510e-003	8.0050e-003
tblVehicleEF	SBUS	1.04	1.06
tblVehicleEF	SBUS	5.36	4.90
tblVehicleEF	SBUS	39.37	36.92
tblVehicleEF	SBUS	581.72	570.82

tblVehicleEF	SBUS	1,155.83	1,130.57
tblVehicleEF	SBUS	130.96	127.39
tblVehicleEF	SBUS	5.4700e-004	5.4300e-004
tblVehicleEF	SBUS	8.19	8.09
tblVehicleEF	SBUS	8.55	8.44
tblVehicleEF	SBUS	2.51	2.39
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.58	0.58
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	7.8690e-003	7.0020e-003
tblVehicleEF	SBUS	0.03	0.02
tblVehicleEF	SBUS	0.25	0.25
tblVehicleEF	SBUS	2.7730e-003	2.7720e-003
tblVehicleEF	SBUS	0.08	0.08
tblVehicleEF	SBUS	6.8680e-003	6.1480e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.46	0.45
tblVehicleEF	SBUS	2.38	2.33
tblVehicleEF	SBUS	2.56	2.37
tblVehicleEF	SBUS	5.6340e-003	5.6430e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.0260e-003	1.9720e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	0.02	0.02



tblVehicleEF	SBUS	0.51	0.50
tblVehicleEF	SBUS	2.38	2.33
tblVehicleEF	SBUS	2.74	2.54
tblVehicleEF	SBUS	5.0870e-003	5.1230e-003
tblVehicleEF	SBUS	7.6510e-003	8.0050e-003
tblVehicleEF	SBUS	0.76	0.77
tblVehicleEF	SBUS	5.35	4.91
tblVehicleEF	SBUS	33.50	31.36
tblVehicleEF	SBUS	616.28	604.73
tblVehicleEF	SBUS	1,155.83	1,130.57
tblVehicleEF	SBUS	130.96	127.39
tblVehicleEF	SBUS	5.4700e-004	5.4300e-004
tblVehicleEF	SBUS	8.46	8.35
tblVehicleEF	SBUS	8.04	7.94
tblVehicleEF	SBUS	2.38	2.27
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.58	0.58
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	7.8690e-003	7.0020e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.25	0.25
tblVehicleEF	SBUS	2.7730e-003	2.7720e-003
tblVehicleEF	SBUS	0.08	0.08
tblVehicleEF	SBUS	6.8680e-003	6.1480e-003
tblVehicleEF	SBUS	0.06	0.06
tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.47	0.45

tblVehicleEF	SBUS	2.19	2.15
tblVehicleEF	SBUS	2.25	2.09
tblVehicleEF	SBUS	5.9690e-003	5.9790e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.9240e-003	1.8760e-003
tblVehicleEF	SBUS	0.06	0.06
tblVehicleEF	SBUS	0.29	0.28
tblVehicleEF	SBUS	0.12	0.13
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.52	0.50
tblVehicleEF	SBUS	2.19	2.15
tblVehicleEF	SBUS	2.41	2.24
tblVehicleEF	SBUS	5.8270e-003	5.8680e-003
tblVehicleEF	SBUS	7.6510e-003	8.0050e-003
tblVehicleEF	SBUS	1.44	1.46
tblVehicleEF	SBUS	5.36	4.90
tblVehicleEF	SBUS	40.90	38.37
tblVehicleEF	SBUS	533.99	523.99
tblVehicleEF	SBUS	1,155.83	1,130.57
tblVehicleEF	SBUS	130.96	127.39
tblVehicleEF	SBUS	5.4700e-004	5.4300e-004
tblVehicleEF	SBUS	7.83	7.73
tblVehicleEF	SBUS	8.40	8.29
tblVehicleEF	SBUS	2.55	2.43
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.58	0.58
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	7.8690e-003	7.0020e-003
tblVehicleEF	SBUS	0.03	0.03

tblVehicleEF	SBUS	0.25	0.25
tblVehicleEF	SBUS	2.7730e-003	2.7720e-003
tblVehicleEF	SBUS	0.08	0.08
tblVehicleEF	SBUS	6.8680e-003	6.1480e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.37	0.34
tblVehicleEF	SBUS	0.13	0.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.46	0.44
tblVehicleEF	SBUS	2.81	2.75
tblVehicleEF	SBUS	2.64	2.45
tblVehicleEF	SBUS	5.1720e-003	5.1800e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.0530e-003	1.9970e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.37	0.34
tblVehicleEF	SBUS	0.14	0.14
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.51	0.50
tblVehicleEF	SBUS	2.81	2.75
tblVehicleEF	SBUS	2.83	2.62
tblVehicleEF	UBUS	5.41	5.02
tblVehicleEF	UBUS	8.46	8.21
tblVehicleEF	UBUS	2,287.55	2,216.14
tblVehicleEF	UBUS	22.10	21.49
tblVehicleEF	UBUS	3.1710e-003	3.1570e-003
tblVehicleEF	UBUS	14.75	13.87
tblVehicleEF	UBUS	0.90	0.89
tblVehicleEF	UBUS	0.24	0.22
tblVehicleEF	UBUS	7.7800e-004	7.0200e-004

tblVehicleEF	UBUS	0.22	0.21
tblVehicleEF	UBUS	6.8900e-004	6.3000e-004
tblVehicleEF	UBUS	4.5680e-003	4.5000e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5400e-003	2.5020e-003
tblVehicleEF	UBUS	0.86	0.83
tblVehicleEF	UBUS	0.61	0.64
tblVehicleEF	UBUS	0.62	0.60
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	3.7600e-004	3.7000e-004
tblVehicleEF	UBUS	4.5680e-003	4.5000e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	2.5400e-003	2.5020e-003
tblVehicleEF	UBUS	0.96	0.92
tblVehicleEF	UBUS	0.61	0.64
tblVehicleEF	UBUS	0.66	0.64
tblVehicleEF	UBUS	5.43	5.05
tblVehicleEF	UBUS	7.11	6.89
tblVehicleEF	UBUS	2,287.55	2,216.14
tblVehicleEF	UBUS	22.10	21.49
tblVehicleEF	UBUS	3.1710e-003	3.1570e-003
tblVehicleEF	UBUS	13.91	13.08
tblVehicleEF	UBUS	0.86	0.85
tblVehicleEF	UBUS	0.24	0.22
tblVehicleEF	UBUS	7.7800e-004	7.0200e-004
tblVehicleEF	UBUS	0.22	0.21
tblVehicleEF	UBUS	6.8900e-004	6.3000e-004
tblVehicleEF	UBUS	6.4920e-003	6.3740e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	3.5460e-003	3.4570e-003

tblVehicleEF	UBUS	0.87	0.84
tblVehicleEF	UBUS	0.56	0.59
tblVehicleEF	UBUS	0.55	0.53
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	3.5300e-004	3.4700e-004
tblVehicleEF	UBUS	6.4920e-003	6.3740e-003
tblVehicleEF	UBUS	0.09	0.08
tblVehicleEF	UBUS	3.5460e-003	3.4570e-003
tblVehicleEF	UBUS	0.97	0.93
tblVehicleEF	UBUS	0.56	0.59
tblVehicleEF	UBUS	0.59	0.57
tblVehicleEF	UBUS	5.40	5.01
tblVehicleEF	UBUS	8.69	8.44
tblVehicleEF	UBUS	2,287.55	2,216.14
tblVehicleEF	UBUS	22.10	21.49
tblVehicleEF	UBUS	3.1710e-003	3.1570e-003
tblVehicleEF	UBUS	14.47	13.60
tblVehicleEF	UBUS	0.91	0.90
tblVehicleEF	UBUS	0.24	0.22
tblVehicleEF	UBUS	7.7800e-004	7.0200e-004
tblVehicleEF	UBUS	0.22	0.21
tblVehicleEF	UBUS	6.8900e-004	6.3000e-004
tblVehicleEF	UBUS	5.3900e-003	5.2850e-003
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	2.7720e-003	2.7160e-003
tblVehicleEF	UBUS	0.86	0.82
tblVehicleEF	UBUS	0.71	0.74
tblVehicleEF	UBUS	0.63	0.61
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	3.8000e-004	3.7400e-004

tblVehicleEF	UBUS	5.3900e-003	5.2850e-003
tblVehicleEF	UBUS	0.11	0.11
tblVehicleEF	UBUS	2.7720e-003	2.7160e-003
tblVehicleEF	UBUS	0.96	0.92
tblVehicleEF	UBUS	0.71	0.74
tblVehicleEF	UBUS	0.68	0.65
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TL	8.40	13.30
tblVehicleTrips	CC_TTP	0.00	64.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TL	6.90	7.40
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TL	16.60	8.90
tblVehicleTrips	CW_TTP	0.00	16.60
tblVehicleTrips	DV_TP	0.00	40.00
tblVehicleTrips	HO_TL	8.70	9.50
tblVehicleTrips	HS_TL	5.90	7.00
tblVehicleTrips	HW_TL	14.70	12.70
tblVehicleTrips	PB_TP	0.00	15.00
tblVehicleTrips	PR_TP	0.00	45.00

tblVehicleTrips	ST_TR	0.00	27.49
tblVehicleTrips	SU_TR	0.00	27.49
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	11.01	12.40
tblVehicleTrips	WD_TR	0.00	27.49
tblWater	IndoorWaterUseRate	0.00	3,341,411.44
tblWater	OutdoorWaterUseRate	3,121,727.66	0.00
tblWater	OutdoorWaterUseRate	14,934,794.84	0.00
tblWater	OutdoorWaterUseRate	158,870.84	0.00

## 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	18.5168	232.7702	151.8909	0.2743	18.2401	9.2539	23.9621	9.9768	8.5132	15.2410	0.0000	28,700.1710	28,700.1710	4.0802	0.0000	28,785.8551
2014	7.7221	58.8953	60.6620	0.0947	3.4156	3.0210	6.4366	0.9194	2.8266	3.7460	0.0000	9,280.4603	9,280.4603	1.2177	0.0000	9,306.0319
2015	38.4209	55.4359	57.2039	0.0947	3.4158	2.8357	6.2514	0.9194	2.6516	3.5710	0.0000	9,132.1059	9,132.1059	1.1851	0.0000	9,156.9933
<b>Total</b>	<b>64.6598</b>	<b>347.1014</b>	<b>269.7567</b>	<b>0.4637</b>	<b>25.0714</b>	<b>15.1106</b>	<b>36.6501</b>	<b>11.8156</b>	<b>13.9914</b>	<b>22.5580</b>	<b>0.0000</b>	<b>47,112.7373</b>	<b>47,112.7373</b>	<b>6.4830</b>	<b>0.0000</b>	<b>47,248.8803</b>

#### 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
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Year	lb/day										lb/day					
2013	9.3544	143.0236	135.7555	0.2743	7.2197	4.8928	11.1936	3.9191	4.7053	7.0363	0.0000	28,700.17 10	28,700.171 0	4.0802	0.0000	28,785.85 51
2014	3.7627	33.4004	60.2509	0.0947	3.4156	1.3413	4.7569	0.9194	1.3190	2.2383	0.0000	9,280.460 3	9,280.4603	1.2177	0.0000	9,306.031 9
2015	38.0738	31.5729	56.9912	0.0947	3.4158	1.2814	4.6971	0.9194	1.2640	2.1834	0.0000	9,132.105 9	9,132.1059	1.1851	0.0000	9,156.993 3
<b>Total</b>	<b>51.1909</b>	<b>207.9968</b>	<b>252.9976</b>	<b>0.4637</b>	<b>14.0510</b>	<b>7.5156</b>	<b>20.6476</b>	<b>5.7578</b>	<b>7.2882</b>	<b>11.4580</b>	<b>0.0000</b>	<b>47,112.73 73</b>	<b>47,112.737 3</b>	<b>6.4830</b>	<b>0.0000</b>	<b>47,248.88 03</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>20.83</b>	<b>40.08</b>	<b>6.21</b>	<b>0.00</b>	<b>43.96</b>	<b>50.26</b>	<b>43.66</b>	<b>51.27</b>	<b>47.91</b>	<b>49.21</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	36.4410	0.5826	44.7460	0.0611		5.8401	5.8401		5.8392	5.8392	711.8858	1,379.539 9	2,091.4257	2.1358	0.0483	2,151.255 3
Energy	0.2057	1.8578	1.4816	0.0112		0.1421	0.1421		0.1421	0.1421		2,243.921 9	2,243.9219	0.0430	0.0411	2,257.578 1
Mobile	21.9104	55.2850	223.6250	0.4677	31.9600	0.7567	32.7167	8.5454	0.6956	9.2410		41,254.20 70	41,254.207 0	1.8177		41,292.37 90
<b>Total</b>	<b>58.5571</b>	<b>57.7254</b>	<b>269.8526</b>	<b>0.5401</b>	<b>31.9600</b>	<b>6.7389</b>	<b>38.6989</b>	<b>8.5454</b>	<b>6.6769</b>	<b>15.2223</b>	<b>711.8858</b>	<b>44,877.66 89</b>	<b>45,589.554 7</b>	<b>3.9965</b>	<b>0.0895</b>	<b>45,701.21 24</b>

### 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
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Category	lb/day										lb/day					
Area	14.3853	0.0773	6.5524	3.4000e-004		0.1263	0.1263		0.1253	0.1253	0.0000	1,460.0105	1,460.0105	0.0406	0.0266	1,469.0942
Energy	0.1646	1.4862	1.1853	8.9800e-003		0.1137	0.1137		0.1137	0.1137		1,795.1376	1,795.1376	0.0344	0.0329	1,806.0625
Mobile	19.4191	37.1917	164.3602	0.2907	19.4504	0.4806	19.9310	5.2006	0.4418	5.6424		25,611.0175	25,611.0175	1.1786		25,635.7671
<b>Total</b>	<b>33.9689</b>	<b>38.7553</b>	<b>172.0979</b>	<b>0.3000</b>	<b>19.4504</b>	<b>0.7206</b>	<b>20.1710</b>	<b>5.2006</b>	<b>0.6808</b>	<b>5.8814</b>	<b>0.0000</b>	<b>28,866.1656</b>	<b>28,866.1656</b>	<b>1.2535</b>	<b>0.0595</b>	<b>28,910.9237</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>41.99</b>	<b>32.86</b>	<b>36.23</b>	<b>44.46</b>	<b>39.14</b>	<b>89.31</b>	<b>47.88</b>	<b>39.14</b>	<b>89.80</b>	<b>61.36</b>	<b>100.00</b>	<b>35.68</b>	<b>36.68</b>	<b>68.63</b>	<b>33.52</b>	<b>36.74</b>

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2013	1/31/2013	5	22	
2	Site Preparation	Site Preparation	2/1/2013	2/28/2013	5	20	
3	Grading & Excavation	Grading	3/1/2013	10/31/2013	5	175	
4	Building Construction	Building Construction	11/1/2013	5/29/2015	5	411	
5	Architectural Coating	Architectural Coating	5/30/2015	9/30/2015	5	88	
6	Paving	Paving	10/1/2015	10/30/2015	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 153,900; Residential Outdoor: 51,300; Non-Residential Indoor: 882,465; Non-Residential Outdoor: 294,155

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	358	0.59
Demolition	Excavators	0	8.00	162	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	358	0.59
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	75	0.55
Grading & Excavation	Excavators	2	8.00	157	0.57
Grading & Excavation	Graders	1	8.00	162	0.61
Demolition	Tractors/Loaders/Backhoes	3	8.00	75	0.55
Grading & Excavation	Rubber Tired Dozers	1	8.00	358	0.59
Grading & Excavation	Tractors/Loaders/Backhoes	3	8.00	75	0.55
Building Construction	Cranes	1	7.00	208	0.43
Building Construction	Forklifts	3	8.00	149	0.30
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	75	0.55
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	89	0.62
Paving	Paving Equipment	2	6.00	82	0.53
Paving	Rollers	2	6.00	84	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	75	0.55
Grading & Excavation	Other Construction Equipment	4	8.00	327	0.62

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	381.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading & Excavation	11	28.00	0.00	34,500.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT

Building Construction	9	281.00	105.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

### 3.2 Demolition - 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					3.7528	0.0000	3.7528	0.5682	0.0000	0.5682			0.0000			0.0000
Off-Road	7.6115	80.6677	60.1281	0.0539		4.3972	4.3972		4.0831	4.0831		5,675.4829	5,675.4829	1.5706		5,708.4649
<b>Total</b>	<b>7.6115</b>	<b>80.6677</b>	<b>60.1281</b>	<b>0.0539</b>	<b>3.7528</b>	<b>4.3972</b>	<b>8.1500</b>	<b>0.5682</b>	<b>4.0831</b>	<b>4.6513</b>		<b>5,675.4829</b>	<b>5,675.4829</b>	<b>1.5706</b>		<b>5,708.4649</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5422	7.3477	5.3136	0.0129	0.3014	0.2052	0.5066	0.0825	0.1887	0.2712		1,335.2700	1,335.2700	0.0159		1,335.6028

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0906	0.1116	1.1734	1.7800e-003	0.1449	1.7200e-003	0.1466	0.0384	1.5600e-003	0.0400		164.9681	164.9681	0.0113		165.2054
<b>Total</b>	<b>0.6328</b>	<b>7.4592</b>	<b>6.4870</b>	<b>0.0147</b>	<b>0.4463</b>	<b>0.2069</b>	<b>0.6532</b>	<b>0.1209</b>	<b>0.1903</b>	<b>0.3112</b>		<b>1,500.2382</b>	<b>1,500.2382</b>	<b>0.0272</b>		<b>1,500.8082</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.4636	0.0000	1.4636	0.2216	0.0000	0.2216			0.0000			0.0000
Off-Road	1.2811	26.1231	31.3056	0.0539		1.2749	1.2749		1.2749	1.2749	0.0000	5,675.4829	5,675.4829	1.5706		5,708.4649
<b>Total</b>	<b>1.2811</b>	<b>26.1231</b>	<b>31.3056</b>	<b>0.0539</b>	<b>1.4636</b>	<b>1.2749</b>	<b>2.7385</b>	<b>0.2216</b>	<b>1.2749</b>	<b>1.4965</b>	<b>0.0000</b>	<b>5,675.4829</b>	<b>5,675.4829</b>	<b>1.5706</b>		<b>5,708.4649</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5422	7.3477	5.3136	0.0129	0.3014	0.2052	0.5066	0.0825	0.1887	0.2712		1,335.2700	1,335.2700	0.0159		1,335.6028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0906	0.1116	1.1734	1.7800e-003	0.1449	1.7200e-003	0.1466	0.0384	1.5600e-003	0.0400		164.9681	164.9681	0.0113		165.2054
<b>Total</b>	<b>0.6328</b>	<b>7.4592</b>	<b>6.4870</b>	<b>0.0147</b>	<b>0.4463</b>	<b>0.2069</b>	<b>0.6532</b>	<b>0.1209</b>	<b>0.1903</b>	<b>0.3112</b>		<b>1,500.2382</b>	<b>1,500.2382</b>	<b>0.0272</b>		<b>1,500.8082</b>

### 3.3 Site Preparation - 2013

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	9.9156	110.2849	82.9934	0.0696		5.7199	5.7199		5.2623	5.2623		7,432.6282	7,432.6282	2.1853		7,478.5201
<b>Total</b>	<b>9.9156</b>	<b>110.2849</b>	<b>82.9934</b>	<b>0.0696</b>	<b>18.0663</b>	<b>5.7199</b>	<b>23.7862</b>	<b>9.9307</b>	<b>5.2623</b>	<b>15.1930</b>		<b>7,432.6282</b>	<b>7,432.6282</b>	<b>2.1853</b>		<b>7,478.5201</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1087	0.1339	1.4081	2.1400e-003	0.1739	2.0600e-003	0.1759	0.0461	1.8800e-003	0.0480		197.9618	197.9618	0.0136		198.2464
<b>Total</b>	<b>0.1087</b>	<b>0.1339</b>	<b>1.4081</b>	<b>2.1400e-003</b>	<b>0.1739</b>	<b>2.0600e-003</b>	<b>0.1759</b>	<b>0.0461</b>	<b>1.8800e-003</b>	<b>0.0480</b>		<b>197.9618</b>	<b>197.9618</b>	<b>0.0136</b>		<b>198.2464</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	1.6903	33.9017	39.8246	0.0696		1.5422	1.5422		1.5422	1.5422	0.0000	7,432.628 2	7,432.6282	2.1853		7,478.520 1
<b>Total</b>	<b>1.6903</b>	<b>33.9017</b>	<b>39.8246</b>	<b>0.0696</b>	<b>7.0458</b>	<b>1.5422</b>	<b>8.5881</b>	<b>3.8730</b>	<b>1.5422</b>	<b>5.4152</b>	<b>0.0000</b>	<b>7,432.628 2</b>	<b>7,432.6282</b>	<b>2.1853</b>		<b>7,478.520 1</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1087	0.1339	1.4081	2.1400e-003	0.1739	2.0600e-003	0.1759	0.0461	1.8800e-003	0.0480		197.9618	197.9618	0.0136		198.2464
<b>Total</b>	<b>0.1087</b>	<b>0.1339</b>	<b>1.4081</b>	<b>2.1400e-003</b>	<b>0.1739</b>	<b>2.0600e-003</b>	<b>0.1759</b>	<b>0.0461</b>	<b>1.8800e-003</b>	<b>0.0480</b>		<b>197.9618</b>	<b>197.9618</b>	<b>0.0136</b>		<b>198.2464</b>

### **3.4 Grading & Excavation - 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					6.6638	0.0000	6.6638	3.3844	0.0000	3.3844			0.0000			0.0000

Off-Road	12.1757	148.9192	89.2125	0.1237		6.9154	6.9154		6.3621	6.3621		13,192.0812	13,192.0812	3.8787		13,273.5342
<b>Total</b>	<b>12.1757</b>	<b>148.9192</b>	<b>89.2125</b>	<b>0.1237</b>	<b>6.6638</b>	<b>6.9154</b>	<b>13.5792</b>	<b>3.3844</b>	<b>6.3621</b>	<b>9.7465</b>		<b>13,192.0812</b>	<b>13,192.0812</b>	<b>3.8787</b>		<b>13,273.5342</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.1720	83.6428	60.4881	0.1473	3.4314	2.3353	5.7668	0.9394	2.1481	3.0875		15,200.1493	15,200.1493	0.1804		15,203.9376
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1691	0.2082	2.1903	3.3300e-003	0.2704	3.2100e-003	0.2736	0.0717	2.9200e-003	0.0747		307.9405	307.9405	0.0211		308.3833
<b>Total</b>	<b>6.3411</b>	<b>83.8510</b>	<b>62.6784</b>	<b>0.1506</b>	<b>3.7019</b>	<b>2.3386</b>	<b>6.0404</b>	<b>1.0111</b>	<b>2.1510</b>	<b>3.1622</b>		<b>15,508.0898</b>	<b>15,508.0898</b>	<b>0.2015</b>		<b>15,512.3209</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5989	0.0000	2.5989	1.3199	0.0000	1.3199			0.0000			0.0000
Off-Road	3.0132	59.1726	73.0771	0.1237		2.5543	2.5543		2.5543	2.5543	0.0000	13,192.0812	13,192.0812	3.8787		13,273.5342
<b>Total</b>	<b>3.0132</b>	<b>59.1726</b>	<b>73.0771</b>	<b>0.1237</b>	<b>2.5989</b>	<b>2.5543</b>	<b>5.1532</b>	<b>1.3199</b>	<b>2.5543</b>	<b>3.8742</b>	<b>0.0000</b>	<b>13,192.0812</b>	<b>13,192.0812</b>	<b>3.8787</b>		<b>13,273.5342</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.1720	83.6428	60.4881	0.1473	3.4314	2.3353	5.7668	0.9394	2.1481	3.0875		15,200.1493	15,200.1493	0.1804		15,203.9376
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1691	0.2082	2.1903	3.3300e-003	0.2704	3.2100e-003	0.2736	0.0717	2.9200e-003	0.0747		307.9405	307.9405	0.0211		308.3833
<b>Total</b>	<b>6.3411</b>	<b>83.8510</b>	<b>62.6784</b>	<b>0.1506</b>	<b>3.7019</b>	<b>2.3386</b>	<b>6.0404</b>	<b>1.0111</b>	<b>2.1510</b>	<b>3.1622</b>		<b>15,508.0898</b>	<b>15,508.0898</b>	<b>0.2015</b>		<b>15,512.3209</b>

**3.5 Building Construction - 2013**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.2389	46.8375	25.7791	0.0368		2.9514	2.9514		2.7676	2.7676		3,782.8706	3,782.8706	1.0149		3,804.1832
<b>Total</b>	<b>5.2389</b>	<b>46.8375</b>	<b>25.7791</b>	<b>0.0368</b>		<b>2.9514</b>	<b>2.9514</b>		<b>2.7676</b>	<b>2.7676</b>		<b>3,782.8706</b>	<b>3,782.8706</b>	<b>1.0149</b>		<b>3,804.1832</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6183	14.4808	17.3155	0.0245	0.7013	0.3779	1.0791	0.1994	0.3475	0.5469	2,510.9660	2,510.9660	0.0295	2,511.5854	
Worker	1.6971	2.0897	21.9813	0.0334	2.7140	0.0322	2.7461	0.7198	0.0293	0.7491	3,090.4031	3,090.4031	0.2116	3,094.8470	
<b>Total</b>	<b>3.3154</b>	<b>16.5705</b>	<b>39.2969</b>	<b>0.0579</b>	<b>3.4152</b>	<b>0.4100</b>	<b>3.8253</b>	<b>0.9192</b>	<b>0.3768</b>	<b>1.2960</b>	<b>5,601.3691</b>	<b>5,601.3691</b>	<b>0.2411</b>	<b>5,606.4324</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9161	18.6163	24.9590	0.0368		1.0658	1.0658		1.0658	1.0658	0.0000	3,782.8706	3,782.8706	1.0149		3,804.1832
<b>Total</b>	<b>0.9161</b>	<b>18.6163</b>	<b>24.9590</b>	<b>0.0368</b>		<b>1.0658</b>	<b>1.0658</b>		<b>1.0658</b>	<b>1.0658</b>	<b>0.0000</b>	<b>3,782.8706</b>	<b>3,782.8706</b>	<b>1.0149</b>		<b>3,804.1832</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6183	14.4808	17.3155	0.0245	0.7013	0.3779	1.0791	0.1994	0.3475	0.5469	2,510.9660	2,510.9660	0.0295			2,511.5854

Worker	1.6971	2.0897	21.9813	0.0334	2.7140	0.0322	2.7461	0.7198	0.0293	0.7491		3,090.4031	3,090.4031	0.2116		3,094.8470
<b>Total</b>	<b>3.3154</b>	<b>16.5705</b>	<b>39.2969</b>	<b>0.0579</b>	<b>3.4152</b>	<b>0.4100</b>	<b>3.8253</b>	<b>0.9192</b>	<b>0.3768</b>	<b>1.2960</b>		<b>5,601.3691</b>	<b>5,601.3691</b>	<b>0.2411</b>		<b>5,606.4324</b>

### 3.5 Building Construction - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8754	44.1112	25.3700	0.0368		2.7455	2.7455		2.5734	2.5734		3,765.9321	3,765.9321	1.0011		3,786.9560
<b>Total</b>	<b>4.8754</b>	<b>44.1112</b>	<b>25.3700</b>	<b>0.0368</b>		<b>2.7455</b>	<b>2.7455</b>		<b>2.5734</b>	<b>2.5734</b>		<b>3,765.9321</b>	<b>3,765.9321</b>	<b>1.0011</b>		<b>3,786.9560</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3270	12.9059	15.5263	0.0245	0.7016	0.2462	0.9478	0.1995	0.2264	0.4259		2,501.6373	2,501.6373	0.0231		2,502.1233
Worker	1.5197	1.8782	19.7656	0.0334	2.7140	0.0294	2.7434	0.7198	0.0269	0.7467		3,012.8910	3,012.8910	0.1934		3,016.9527
<b>Total</b>	<b>2.8467</b>	<b>14.7841</b>	<b>35.2920</b>	<b>0.0579</b>	<b>3.4156</b>	<b>0.2756</b>	<b>3.6912</b>	<b>0.9193</b>	<b>0.2532</b>	<b>1.1726</b>		<b>5,514.5283</b>	<b>5,514.5283</b>	<b>0.2166</b>		<b>5,519.0759</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9161	18.6163	24.9590	0.0368		1.0658	1.0658		1.0658	1.0658	0.0000	3,765.9321	3,765.9321	1.0011		3,786.9560
<b>Total</b>	<b>0.9161</b>	<b>18.6163</b>	<b>24.9590</b>	<b>0.0368</b>		<b>1.0658</b>	<b>1.0658</b>		<b>1.0658</b>	<b>1.0658</b>	<b>0.0000</b>	<b>3,765.9321</b>	<b>3,765.9321</b>	<b>1.0011</b>		<b>3,786.9560</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.3270	12.9059	15.5263	0.0245	0.7016	0.2462	0.9478	0.1995	0.2264	0.4259		2,501.6373	2,501.6373	0.0231		2,502.1233
Worker	1.5197	1.8782	19.7656	0.0334	2.7140	0.0294	2.7434	0.7198	0.0269	0.7467		3,012.8910	3,012.8910	0.1934		3,016.9527
<b>Total</b>	<b>2.8467</b>	<b>14.7841</b>	<b>35.2920</b>	<b>0.0579</b>	<b>3.4156</b>	<b>0.2756</b>	<b>3.6912</b>	<b>0.9193</b>	<b>0.2532</b>	<b>1.1726</b>		<b>5,514.5283</b>	<b>5,514.5283</b>	<b>0.2166</b>		<b>5,519.0759</b>

**3.5 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
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Category	lb/day										lb/day					
Off-Road	4.6513	42.4793	25.1716	0.0368		2.6200	2.6200		2.4534	2.4534		3,735.5068	3,735.5068	0.9871		3,756.2353
<b>Total</b>	<b>4.6513</b>	<b>42.4793</b>	<b>25.1716</b>	<b>0.0368</b>		<b>2.6200</b>	<b>2.6200</b>		<b>2.4534</b>	<b>2.4534</b>		<b>3,735.5068</b>	<b>3,735.5068</b>	<b>0.9871</b>		<b>3,756.2353</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1400	11.2648	14.2134	0.0245	0.7018	0.1882	0.8900	0.1996	0.1731	0.3727		2,473.7931	2,473.7931	0.0204		2,474.2208
Worker	1.3688	1.6918	17.8189	0.0334	2.7140	0.0274	2.7414	0.7198	0.0251	0.7450		2,922.8060	2,922.8060	0.1777		2,926.5372
<b>Total</b>	<b>2.5088</b>	<b>12.9566</b>	<b>32.0323</b>	<b>0.0579</b>	<b>3.4158</b>	<b>0.2157</b>	<b>3.6314</b>	<b>0.9194</b>	<b>0.1982</b>	<b>1.1176</b>		<b>5,396.5991</b>	<b>5,396.5991</b>	<b>0.1980</b>		<b>5,400.7580</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9161	18.6163	24.9590	0.0368		1.0658	1.0658		1.0658	1.0658	0.0000	3,735.5068	3,735.5068	0.9871		3,756.2353
<b>Total</b>	<b>0.9161</b>	<b>18.6163</b>	<b>24.9590</b>	<b>0.0368</b>		<b>1.0658</b>	<b>1.0658</b>		<b>1.0658</b>	<b>1.0658</b>	<b>0.0000</b>	<b>3,735.5068</b>	<b>3,735.5068</b>	<b>0.9871</b>		<b>3,756.2353</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.1400	11.2648	14.2134	0.0245	0.7018	0.1882	0.8900	0.1996	0.1731	0.3727		2,473.7931	2,473.7931	0.0204		2,474.2208
Worker	1.3688	1.6918	17.8189	0.0334	2.7140	0.0274	2.7414	0.7198	0.0251	0.7450		2,922.8060	2,922.8060	0.1777		2,926.5372
<b>Total</b>	<b>2.5088</b>	<b>12.9566</b>	<b>32.0323</b>	<b>0.0579</b>	<b>3.4158</b>	<b>0.2157</b>	<b>3.6314</b>	<b>0.9194</b>	<b>0.1982</b>	<b>1.1176</b>		<b>5,396.5991</b>	<b>5,396.5991</b>	<b>0.1980</b>		<b>5,400.7580</b>

**3.6 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	37.7415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
<b>Total</b>	<b>38.1481</b>	<b>2.5703</b>	<b>1.9018</b>	<b>2.9700e-003</b>		<b>0.2209</b>	<b>0.2209</b>		<b>0.2209</b>	<b>0.2209</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0367</b>		<b>282.2177</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2728	0.3372	3.5511	6.6600e-003	0.5409	5.4700e-003	0.5463	0.1435	5.0100e-003	0.1485		582.4809	582.4809	0.0354		583.2245
<b>Total</b>	<b>0.2728</b>	<b>0.3372</b>	<b>3.5511</b>	<b>6.6600e-003</b>	<b>0.5409</b>	<b>5.4700e-003</b>	<b>0.5463</b>	<b>0.1435</b>	<b>5.0100e-003</b>	<b>0.1485</b>		<b>582.4809</b>	<b>582.4809</b>	<b>0.0354</b>		<b>583.2245</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.7415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0367		282.2177
<b>Total</b>	<b>37.8010</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0367</b>		<b>282.2177</b>

**Mitigated Construction Off-Site**

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2728	0.3372	3.5511	6.6600e-003	0.5409	5.4700e-003	0.5463	0.1435	5.0100e-003	0.1485		582.4809	582.4809	0.0354		583.2245
<b>Total</b>	<b>0.2728</b>	<b>0.3372</b>	<b>3.5511</b>	<b>6.6600e-003</b>	<b>0.5409</b>	<b>5.4700e-003</b>	<b>0.5463</b>	<b>0.1435</b>	<b>5.0100e-003</b>	<b>0.1485</b>		<b>582.4809</b>	<b>582.4809</b>	<b>0.0354</b>		<b>583.2245</b>

### 3.7 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	2.7747	25.3464	16.0846	0.0211		1.9209	1.9209		1.7691	1.7691		2,176.9565	2,176.9565	0.6352		2,190.2948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.7747</b>	<b>25.3464</b>	<b>16.0846</b>	<b>0.0211</b>		<b>1.9209</b>	<b>1.9209</b>		<b>1.7691</b>	<b>1.7691</b>		<b>2,176.9565</b>	<b>2,176.9565</b>	<b>0.6352</b>		<b>2,190.2948</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0974	0.1204	1.2683	2.3800e-003	0.1932	1.9500e-003	0.1951	0.0512	1.7900e-003	0.0530		208.0289	208.0289	0.0127		208.2945

<b>Total</b>	<b>0.0974</b>	<b>0.1204</b>	<b>1.2683</b>	<b>2.3800e-003</b>	<b>0.1932</b>	<b>1.9500e-003</b>	<b>0.1951</b>	<b>0.0512</b>	<b>1.7900e-003</b>	<b>0.0530</b>		<b>208.0289</b>	<b>208.0289</b>	<b>0.0127</b>		<b>208.2945</b>
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**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4914	11.2202	15.1513	0.0211		0.7862	0.7862		0.7862	0.7862	0.0000	2,176.9565	2,176.9565	0.6352		2,190.2948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4914</b>	<b>11.2202</b>	<b>15.1513</b>	<b>0.0211</b>		<b>0.7862</b>	<b>0.7862</b>		<b>0.7862</b>	<b>0.7862</b>	<b>0.0000</b>	<b>2,176.9565</b>	<b>2,176.9565</b>	<b>0.6352</b>		<b>2,190.2948</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0974	0.1204	1.2683	2.3800e-003	0.1932	1.9500e-003	0.1951	0.0512	1.7900e-003	0.0530		208.0289	208.0289	0.0127		208.2945
<b>Total</b>	<b>0.0974</b>	<b>0.1204</b>	<b>1.2683</b>	<b>2.3800e-003</b>	<b>0.1932</b>	<b>1.9500e-003</b>	<b>0.1951</b>	<b>0.0512</b>	<b>1.7900e-003</b>	<b>0.0530</b>		<b>208.0289</b>	<b>208.0289</b>	<b>0.0127</b>		<b>208.2945</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**



- Increase Density
- Increase Diversity
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network
- Limit Parking Supply
- Unbundle Parking Cost
- Implement Trip Reduction Program
- Market Commute Trip Reduction Option
- Employee Vanpool/Shuttle
- Provide Ride Sharing Program

	ROG	NOx	CO	SO2	Fugitive 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	19.4191	37.1917	164.3602	0.2907	19.4504	0.4806	19.9310	5.2006	0.4418	5.6424		25,611.0175	25,611.0175	1.1786		25,635.7671
Unmitigated	21.9104	55.2850	223.6250	0.4677	31.9600	0.7567	32.7167	8.5454	0.6956	9.2410		41,254.2070	41,254.2070	1.8177		41,292.3790

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	505.40	544.16	461.32	1,680,741	1,050,856
General Office Building	1,700.04	324.93	134.36	4,087,431	2,479,252
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	737.59	773.75	591.71	1,312,751	795,612
Strip Mall	1,999.28	1,896.42	921.60	4,205,813	2,549,347
User Defined Commercial	450.84	450.84	450.84	1,035,782	627,838
User Defined Commercial	338.13	338.13	338.13	776,837	470,878

Total	5,731.27	4,328.23	2,897.95	13,099,355	7,973,782
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### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.70	7.00	9.50	40.20	19.20	40.60	86	11	3
General Office Building	8.90	13.30	7.40	33.00	48.00	19.00	77	19	4
Enclosed Parking with Elevator	8.90	13.30	7.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	8.90	13.30	7.40	12.00	69.00	19.00	38	18	44
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15
User Defined Commercial	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15
User Defined Commercial	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.533598	0.058434	0.178244	0.125508	0.038944	0.006283	0.016425	0.031066	0.002453	0.003157	0.003691	0.000543	0.001655

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Natural Gas Mitigated	0.1646	1.4862	1.1853	8.9800e-003		0.1137	0.1137		0.1137	0.1137		1,795.1376	1,795.1376	0.0344	0.0329	1,806.0625

NaturalGas Unmitigated	0.2057	1.8578	1.4816	0.0112		0.1421	0.1421		0.1421	0.1421		2,243.9219	2,243.9219	0.0430	0.0411	2,257.5781
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## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4105.49	0.0443	0.4025	0.3381	2.4100e-003		0.0306	0.0306		0.0306	0.0306		482.9986	482.9986	9.2600e-003	8.8500e-003	485.9380
Quality Restaurant	12558.3	0.1354	1.2312	1.0342	7.3900e-003		0.0936	0.0936		0.0936	0.0936		1,477.4510	1,477.4510	0.0283	0.0271	1,486.4425
Strip Mall	210.101	2.2700e-003	0.0206	0.0173	1.2000e-004		1.5700e-003	1.5700e-003		1.5700e-003	1.5700e-003		24.7178	24.7178	4.7000e-004	4.5000e-004	24.8682
User Defined Commercial	57.2877	6.2000e-004	5.6200e-003	4.7200e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.7397	6.7397	1.3000e-004	1.2000e-004	6.7807
User Defined Commercial	76.3836	8.2000e-004	7.4900e-003	6.2900e-003	4.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004		8.9863	8.9863	1.7000e-004	1.6000e-004	9.0410
Apartments High Rise	2065.74	0.0223	0.1904	0.0810	1.2200e-003		0.0154	0.0154		0.0154	0.0154		243.0285	243.0285	4.6600e-003	4.4600e-003	244.5076
<b>Total</b>		<b>0.2057</b>	<b>1.8578</b>	<b>1.4816</b>	<b>0.0112</b>		<b>0.1421</b>	<b>0.1421</b>		<b>0.1421</b>	<b>0.1421</b>		<b>2,243.9219</b>	<b>2,243.9219</b>	<b>0.0430</b>	<b>0.0411</b>	<b>2,257.5781</b>

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

General Office Building	3.28439	0.0354	0.3220	0.2705	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.3988	386.3988	7.4100e-003	7.0800e-003	388.7504
Quality Restaurant	10.0467	0.1084	0.9850	0.8274	5.9100e-003		0.0749	0.0749		0.0749	0.0749		1,181.9608	1,181.9608	0.0227	0.0217	1,189.1540
Strip Mall	0.168081	1.8100e-003	0.0165	0.0138	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003		19.7743	19.7743	3.8000e-004	3.6000e-004	19.8946
User Defined Commercial	0.0458301	4.9000e-004	4.4900e-003	3.7700e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		5.3918	5.3918	1.0000e-004	1.0000e-004	5.4246
User Defined Commercial	0.0611068	6.6000e-004	5.9900e-003	5.0300e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		7.1890	7.1890	1.4000e-004	1.3000e-004	7.2328
Apartments High Rise	1.65259	0.0178	0.1523	0.0648	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.4228	194.4228	3.7300e-003	3.5600e-003	195.6061
<b>Total</b>		<b>0.1646</b>	<b>1.4862</b>	<b>1.1853</b>	<b>8.9800e-003</b>		<b>0.1137</b>	<b>0.1137</b>		<b>0.1137</b>	<b>0.1137</b>		<b>1,795.1376</b>	<b>1,795.1376</b>	<b>0.0344</b>	<b>0.0329</b>	<b>1,806.0625</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.3853	0.0773	6.5524	3.4000e-004		0.1263	0.1263		0.1253	0.1253	0.0000	1,460.0105	1,460.0105	0.0406	0.0266	1,469.0942
Unmitigated	36.4410	0.5826	44.7460	0.0611		5.8401	5.8401		5.8392	5.8392	711.8858	1,379.5399	2,091.4257	2.1358	0.0483	2,151.2553

## 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	3.1512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1533					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	19.9147	0.5053	38.2008	0.0608		5.8055	5.8055		5.8046	5.8046	711.8858	1,368.0000	2,079.8858	2.1230	0.0483	2,139.4469
Landscaping	0.2218	0.0773	6.5452	3.4000e-004		0.0346	0.0346		0.0346	0.0346		11.5399	11.5399	0.0128		11.8084
<b>Total</b>	<b>36.4410</b>	<b>0.5826</b>	<b>44.7460</b>	<b>0.0611</b>		<b>5.8401</b>	<b>5.8401</b>		<b>5.8392</b>	<b>5.8392</b>	<b>711.8858</b>	<b>1,379.5399</b>	<b>2,091.4257</b>	<b>2.1358</b>	<b>0.0483</b>	<b>2,151.2553</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8774					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.1533					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1328	1.0000e-005	7.2400e-003	0.0000		0.0917	0.0917		0.0908	0.0908	0.0000	1,448.4706	1,448.4706	0.0278	0.0266	1,457.2857
Landscaping	0.2218	0.0773	6.5452	3.4000e-004		0.0346	0.0346		0.0346	0.0346		11.5399	11.5399	0.0128		11.8084
<b>Total</b>	<b>14.3853</b>	<b>0.0773</b>	<b>6.5524</b>	<b>3.4000e-004</b>		<b>0.1263</b>	<b>0.1263</b>		<b>0.1253</b>	<b>0.1253</b>	<b>0.0000</b>	<b>1,460.0105</b>	<b>1,460.0105</b>	<b>0.0406</b>	<b>0.0266</b>	<b>1,469.0942</b>

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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## Melrose Triangle Los Angeles-South Coast County, Annual

### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	137.10	1000sqft	1.00	137,100.00	0
User Defined Commercial	16.40	User Defined Unit	0.00	16,400.00	0
User Defined Commercial	12.30	User Defined Unit	0.00	12,300.00	0
Enclosed Parking with Elevator	923.00	Space	0.00	369,200.00	0
Quality Restaurant	8.20	1000sqft	0.19	8,200.00	0
Apartments High Rise	76.00	Dwelling Unit	0.82	76,000.00	217
Strip Mall	45.11	1000sqft	1.04	45,110.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2014
<b>Utility Company</b>	Los Angeles Department of Water & Power				
<b>CO2 Intensity (lb/MW hr)</b>	1227.89	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreages adjusted to match total site area of 3.05 acres, parking is all subterranean.

Construction Phase - Construction schedule estimated based on a 33-month total and 9-month excavation for 4-story subterranean parking structure.

Off-road Equipment -

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Excavating 4 stories down will be equipment intensive.

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Off-road Equipment - Equipment set as used in previous air quality analysis (2008).

Trips and VMT - Haul trips set to 34,500 per the traffic study, trip lengths set to match previous analysis.

Demolition - Demolition area set as used in previous air quality analysis (2008).

Grading -

Architectural Coating - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Vehicle Trips - Set the weekday trip rates to match the traffic study peak day rates, left the Saturday and Sunday rates at the CalEEMod defaults. Set the Art Gallery & Design Showrooms (User Defined Commercial) all to match the traffic study peak day rates.

Area Coating - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Energy Use - Moved all energy use from nontitle-24 to Title-24. Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall.

Water And Wastewater - Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall. Set outdoor water use to zero for all but the strip mall since other land uses will not have landscaping.

Solid Waste - Set the Art Gallery & Design Showrooms (User Defined Commercial) to match the Strip Mall. Set the office waste generation rate to match the strip mall since there will be simple offices.

Construction Off-road Equipment Mitigation - The only dust control implemented is what is mandated by SCAQMD Rule 403, all diesel equipment will meet EPA Tier 2 level.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - Project will comply with the City's Green Building Ordinance, including that architectural coatings are low VOC (approximately 50 grams per liter).

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves -

Landscape Equipment -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	50





tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	18.00	88.00
tblConstructionPhase	NumDays	230.00	411.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	175.00
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	5.00	20.00
tblEnergyUse	NT24E	2,553.86	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	28.16	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24NG	1,718.92	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	187.78	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	T24E	246.66	2,801.00
tblEnergyUse	T24E	5.62	10.24
tblEnergyUse	T24E	3.92	4.11
tblEnergyUse	T24E	9.91	38.07
tblEnergyUse	T24E	4.90	8.13
tblEnergyUse	T24E	0.00	8.13
tblEnergyUse	T24NG	8,201.59	9,921.00
tblEnergyUse	T24NG	10.54	10.93
tblEnergyUse	T24NG	45.23	559.00
tblEnergyUse	T24NG	1.21	1.70
tblEnergyUse	T24NG	0.00	1.70
tblGrading	MaterialExported	0.00	172,500.00
tblLandUse	LandUseSquareFeet	0.00	12,300.00

tblLandUse	LandUseSquareFeet	0.00	16,400.00
tblLandUse	LotAcreage	3.15	1.00
tblLandUse	LotAcreage	1.23	0.82
tblLandUse	LotAcreage	8.31	0.00
tblOffRoadEquipment	HorsePower	226.00	208.00
tblOffRoadEquipment	HorsePower	162.00	157.00
tblOffRoadEquipment	HorsePower	89.00	149.00
tblOffRoadEquipment	HorsePower	174.00	162.00
tblOffRoadEquipment	HorsePower	125.00	89.00
tblOffRoadEquipment	HorsePower	130.00	82.00
tblOffRoadEquipment	HorsePower	80.00	84.00
tblOffRoadEquipment	HorsePower	255.00	358.00
tblOffRoadEquipment	HorsePower	255.00	358.00
tblOffRoadEquipment	HorsePower	255.00	358.00
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tblOffRoadEquipment	HorsePower	97.00	75.00
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tblOffRoadEquipment	HorsePower	171.00	327.00
tblOffRoadEquipment	LoadFactor	0.29	0.43
tblOffRoadEquipment	LoadFactor	0.38	0.57
tblOffRoadEquipment	LoadFactor	0.20	0.30
tblOffRoadEquipment	LoadFactor	0.41	0.61
tblOffRoadEquipment	LoadFactor	0.42	0.62
tblOffRoadEquipment	LoadFactor	0.36	0.53
tblOffRoadEquipment	LoadFactor	0.38	0.56
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tblOffRoadEquipment	LoadFactor	0.40	0.59
tblOffRoadEquipment	LoadFactor	0.40	0.59

tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.37	0.55
tblOffRoadEquipment	LoadFactor	0.42	0.62
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	47.37
tblTripsAndVMT	HaulingTripNumber	21,563.00	34,500.00
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	VendorTripLength	6.90	7.40
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblTripsAndVMT	WorkerTripLength	14.70	12.70
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.78	2.81
tblVehicleEF	HHD	2.26	1.89
tblVehicleEF	HHD	70.66	60.76
tblVehicleEF	HHD	576.70	566.61

tbIVehicleEF	HHD	1,704.18	1,665.81
tbIVehicleEF	HHD	67.83	58.19
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	5.80	4.87
tbIVehicleEF	HHD	8.09	6.24
tbIVehicleEF	HHD	3.99	3.76
tbIVehicleEF	HHD	0.03	0.01
tbIVehicleEF	HHD	0.06	0.06
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	0.15	0.09
tbIVehicleEF	HHD	5.3500e-003	2.6460e-003
tbIVehicleEF	HHD	0.03	0.01
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	8.6480e-003	8.6630e-003
tbIVehicleEF	HHD	0.14	0.09
tbIVehicleEF	HHD	4.2300e-003	2.1680e-003
tbIVehicleEF	HHD	3.0220e-003	1.9170e-003
tbIVehicleEF	HHD	0.19	0.10
tbIVehicleEF	HHD	0.52	0.50
tbIVehicleEF	HHD	1.9270e-003	1.3190e-003
tbIVehicleEF	HHD	0.32	0.26
tbIVehicleEF	HHD	0.74	0.44
tbIVehicleEF	HHD	2.81	2.01
tbIVehicleEF	HHD	5.5860e-003	5.6020e-003
tbIVehicleEF	HHD	0.02	0.02
tbIVehicleEF	HHD	1.8850e-003	1.6190e-003
tbIVehicleEF	HHD	3.0220e-003	1.9170e-003
tbIVehicleEF	HHD	0.19	0.10
tbIVehicleEF	HHD	0.59	0.57
tbIVehicleEF	HHD	1.9270e-003	1.3190e-003

tbIVehicleEF	HHD	0.37	0.30
tbIVehicleEF	HHD	0.74	0.44
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tbIVehicleEF	HHD	0.01	0.01
tbIVehicleEF	HHD	2.02	2.04
tbIVehicleEF	HHD	2.27	1.90
tbIVehicleEF	HHD	60.06	49.99
tbIVehicleEF	HHD	610.97	600.27
tbIVehicleEF	HHD	1,704.18	1,665.81
tbIVehicleEF	HHD	67.83	58.19
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	5.98	5.02
tbIVehicleEF	HHD	7.65	5.90
tbIVehicleEF	HHD	3.83	3.60
tbIVehicleEF	HHD	0.02	0.01
tbIVehicleEF	HHD	0.06	0.06
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	0.15	0.09
tbIVehicleEF	HHD	5.3500e-003	2.6460e-003
tbIVehicleEF	HHD	0.02	9.5250e-003
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	8.6480e-003	8.6630e-003
tbIVehicleEF	HHD	0.14	0.09
tbIVehicleEF	HHD	4.2300e-003	2.1680e-003
tbIVehicleEF	HHD	4.7100e-003	2.9810e-003
tbIVehicleEF	HHD	0.19	0.11
tbIVehicleEF	HHD	0.49	0.47
tbIVehicleEF	HHD	3.0260e-003	2.0320e-003
tbIVehicleEF	HHD	0.32	0.26

tbIVehicleEF	HHD	0.73	0.43
tbIVehicleEF	HHD	2.38	1.72
tbIVehicleEF	HHD	5.9180e-003	5.9350e-003
tbIVehicleEF	HHD	0.02	0.02
tbIVehicleEF	HHD	1.7050e-003	1.4410e-003
tbIVehicleEF	HHD	4.7100e-003	2.9810e-003
tbIVehicleEF	HHD	0.19	0.11
tbIVehicleEF	HHD	0.56	0.54
tbIVehicleEF	HHD	3.0260e-003	2.0320e-003
tbIVehicleEF	HHD	0.37	0.30
tbIVehicleEF	HHD	0.73	0.43
tbIVehicleEF	HHD	2.55	1.84
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	0.01	0.01
tbIVehicleEF	HHD	3.83	3.87
tbIVehicleEF	HHD	2.25	1.88
tbIVehicleEF	HHD	72.66	62.83
tbIVehicleEF	HHD	529.39	520.12
tbIVehicleEF	HHD	1,704.18	1,665.81
tbIVehicleEF	HHD	67.83	58.19
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	5.54	4.65
tbIVehicleEF	HHD	7.95	6.13
tbIVehicleEF	HHD	4.03	3.79
tbIVehicleEF	HHD	0.03	0.01
tbIVehicleEF	HHD	0.06	0.06
tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	0.15	0.09
tbIVehicleEF	HHD	5.3500e-003	2.6460e-003
tbIVehicleEF	HHD	0.03	0.01

tbIVehicleEF	HHD	0.03	0.03
tbIVehicleEF	HHD	8.6480e-003	8.6630e-003
tbIVehicleEF	HHD	0.14	0.09
tbIVehicleEF	HHD	4.2300e-003	2.1680e-003
tbIVehicleEF	HHD	3.3810e-003	2.0770e-003
tbIVehicleEF	HHD	0.25	0.13
tbIVehicleEF	HHD	0.56	0.54
tbIVehicleEF	HHD	1.9690e-003	1.3280e-003
tbIVehicleEF	HHD	0.32	0.26
tbIVehicleEF	HHD	0.79	0.47
tbIVehicleEF	HHD	2.89	2.07
tbIVehicleEF	HHD	5.1280e-003	5.1420e-003
tbIVehicleEF	HHD	0.02	0.02
tbIVehicleEF	HHD	1.9200e-003	1.6530e-003
tbIVehicleEF	HHD	3.3810e-003	2.0770e-003
tbIVehicleEF	HHD	0.25	0.13
tbIVehicleEF	HHD	0.64	0.62
tbIVehicleEF	HHD	1.9690e-003	1.3280e-003
tbIVehicleEF	HHD	0.37	0.30
tbIVehicleEF	HHD	0.79	0.47
tbIVehicleEF	HHD	3.11	2.21
tbIVehicleEF	LDA	0.02	0.01
tbIVehicleEF	LDA	0.01	9.5050e-003
tbIVehicleEF	LDA	1.45	1.17
tbIVehicleEF	LDA	2.69	2.12
tbIVehicleEF	LDA	330.59	306.92
tbIVehicleEF	LDA	67.11	62.69
tbIVehicleEF	LDA	0.54	0.53
tbIVehicleEF	LDA	0.13	0.10
tbIVehicleEF	LDA	0.18	0.14



tbIVehicleEF	LDA	2.4600e-003	2.1770e-003
tbIVehicleEF	LDA	2.9560e-003	2.8640e-003
tbIVehicleEF	LDA	2.2430e-003	1.9970e-003
tbIVehicleEF	LDA	2.6930e-003	2.6280e-003
tbIVehicleEF	LDA	0.07	0.06
tbIVehicleEF	LDA	0.16	0.14
tbIVehicleEF	LDA	0.06	0.05
tbIVehicleEF	LDA	0.05	0.03
tbIVehicleEF	LDA	0.37	0.31
tbIVehicleEF	LDA	0.23	0.17
tbIVehicleEF	LDA	3.7180e-003	3.7240e-003
tbIVehicleEF	LDA	7.8200e-004	7.7200e-004
tbIVehicleEF	LDA	0.07	0.06
tbIVehicleEF	LDA	0.16	0.14
tbIVehicleEF	LDA	0.06	0.05
tbIVehicleEF	LDA	0.06	0.05
tbIVehicleEF	LDA	0.37	0.31
tbIVehicleEF	LDA	0.24	0.18
tbIVehicleEF	LDA	0.02	0.01
tbIVehicleEF	LDA	0.01	9.5050e-003
tbIVehicleEF	LDA	1.56	1.26
tbIVehicleEF	LDA	2.14	1.68
tbIVehicleEF	LDA	345.38	320.65
tbIVehicleEF	LDA	67.11	62.69
tbIVehicleEF	LDA	0.54	0.53
tbIVehicleEF	LDA	0.11	0.09
tbIVehicleEF	LDA	0.17	0.13
tbIVehicleEF	LDA	2.4600e-003	2.1770e-003
tbIVehicleEF	LDA	2.9560e-003	2.8640e-003
tbIVehicleEF	LDA	2.2430e-003	1.9970e-003

tbIVehicleEF	LDA	2.6930e-003	2.6280e-003
tbIVehicleEF	LDA	0.12	0.09
tbIVehicleEF	LDA	0.17	0.14
tbIVehicleEF	LDA	0.09	0.07
tbIVehicleEF	LDA	0.05	0.03
tbIVehicleEF	LDA	0.35	0.29
tbIVehicleEF	LDA	0.19	0.14
tbIVehicleEF	LDA	3.8860e-003	3.8930e-003
tbIVehicleEF	LDA	7.7200e-004	7.6500e-004
tbIVehicleEF	LDA	0.12	0.09
tbIVehicleEF	LDA	0.17	0.14
tbIVehicleEF	LDA	0.09	0.07
tbIVehicleEF	LDA	0.07	0.05
tbIVehicleEF	LDA	0.35	0.29
tbIVehicleEF	LDA	0.20	0.15
tbIVehicleEF	LDA	0.02	0.01
tbIVehicleEF	LDA	0.01	9.5050e-003
tbIVehicleEF	LDA	1.41	1.13
tbIVehicleEF	LDA	2.81	2.21
tbIVehicleEF	LDA	325.11	301.84
tbIVehicleEF	LDA	67.11	62.69
tbIVehicleEF	LDA	0.54	0.53
tbIVehicleEF	LDA	0.12	0.10
tbIVehicleEF	LDA	0.19	0.14
tbIVehicleEF	LDA	2.4600e-003	2.1770e-003
tbIVehicleEF	LDA	2.9560e-003	2.8640e-003
tbIVehicleEF	LDA	2.2430e-003	1.9970e-003
tbIVehicleEF	LDA	2.6930e-003	2.6280e-003
tbIVehicleEF	LDA	0.08	0.06
tbIVehicleEF	LDA	0.19	0.16

tbIVehicleEF	LDA	0.06	0.05
tbIVehicleEF	LDA	0.05	0.03
tbIVehicleEF	LDA	0.42	0.35
tbIVehicleEF	LDA	0.23	0.17
tbIVehicleEF	LDA	3.6560e-003	3.6620e-003
tbIVehicleEF	LDA	7.8400e-004	7.7400e-004
tbIVehicleEF	LDA	0.08	0.06
tbIVehicleEF	LDA	0.19	0.16
tbIVehicleEF	LDA	0.06	0.05
tbIVehicleEF	LDA	0.06	0.05
tbIVehicleEF	LDA	0.42	0.35
tbIVehicleEF	LDA	0.25	0.18
tbIVehicleEF	LDT1	0.04	0.03
tbIVehicleEF	LDT1	0.03	0.02
tbIVehicleEF	LDT1	3.93	3.26
tbIVehicleEF	LDT1	6.39	5.42
tbIVehicleEF	LDT1	390.84	368.68
tbIVehicleEF	LDT1	78.22	73.87
tbIVehicleEF	LDT1	0.06	0.06
tbIVehicleEF	LDT1	0.38	0.32
tbIVehicleEF	LDT1	0.36	0.31
tbIVehicleEF	LDT1	6.1870e-003	5.3800e-003
tbIVehicleEF	LDT1	5.8970e-003	5.3140e-003
tbIVehicleEF	LDT1	5.6590e-003	4.9510e-003
tbIVehicleEF	LDT1	5.3950e-003	4.8940e-003
tbIVehicleEF	LDT1	0.20	0.18
tbIVehicleEF	LDT1	0.36	0.34
tbIVehicleEF	LDT1	0.15	0.14
tbIVehicleEF	LDT1	0.13	0.10
tbIVehicleEF	LDT1	1.30	1.19

tbIVehicleEF	LDT1	0.51	0.42
tbIVehicleEF	LDT1	4.3170e-003	4.3220e-003
tbIVehicleEF	LDT1	9.5500e-004	9.3800e-004
tbIVehicleEF	LDT1	0.20	0.18
tbIVehicleEF	LDT1	0.36	0.34
tbIVehicleEF	LDT1	0.15	0.14
tbIVehicleEF	LDT1	0.17	0.13
tbIVehicleEF	LDT1	1.30	1.19
tbIVehicleEF	LDT1	0.54	0.45
tbIVehicleEF	LDT1	0.04	0.03
tbIVehicleEF	LDT1	0.03	0.02
tbIVehicleEF	LDT1	4.16	3.47
tbIVehicleEF	LDT1	5.09	4.30
tbIVehicleEF	LDT1	406.73	383.78
tbIVehicleEF	LDT1	78.22	73.87
tbIVehicleEF	LDT1	0.06	0.06
tbIVehicleEF	LDT1	0.33	0.28
tbIVehicleEF	LDT1	0.33	0.29
tbIVehicleEF	LDT1	6.1870e-003	5.3800e-003
tbIVehicleEF	LDT1	5.8970e-003	5.3140e-003
tbIVehicleEF	LDT1	5.6590e-003	4.9510e-003
tbIVehicleEF	LDT1	5.3950e-003	4.8940e-003
tbIVehicleEF	LDT1	0.31	0.29
tbIVehicleEF	LDT1	0.38	0.35
tbIVehicleEF	LDT1	0.22	0.20
tbIVehicleEF	LDT1	0.14	0.10
tbIVehicleEF	LDT1	1.20	1.10
tbIVehicleEF	LDT1	0.43	0.36
tbIVehicleEF	LDT1	4.4950e-003	4.5020e-003
tbIVehicleEF	LDT1	9.3300e-004	9.1900e-004

tbIVehicleEF	LDT1	0.31	0.29
tbIVehicleEF	LDT1	0.38	0.35
tbIVehicleEF	LDT1	0.22	0.20
tbIVehicleEF	LDT1	0.17	0.13
tbIVehicleEF	LDT1	1.20	1.10
tbIVehicleEF	LDT1	0.46	0.38
tbIVehicleEF	LDT1	0.04	0.03
tbIVehicleEF	LDT1	0.03	0.02
tbIVehicleEF	LDT1	3.84	3.17
tbIVehicleEF	LDT1	6.68	5.67
tbIVehicleEF	LDT1	384.95	363.09
tbIVehicleEF	LDT1	78.22	73.87
tbIVehicleEF	LDT1	0.06	0.06
tbIVehicleEF	LDT1	0.37	0.31
tbIVehicleEF	LDT1	0.37	0.31
tbIVehicleEF	LDT1	6.1870e-003	5.3800e-003
tbIVehicleEF	LDT1	5.8970e-003	5.3140e-003
tbIVehicleEF	LDT1	5.6590e-003	4.9510e-003
tbIVehicleEF	LDT1	5.3950e-003	4.8940e-003
tbIVehicleEF	LDT1	0.21	0.19
tbIVehicleEF	LDT1	0.42	0.39
tbIVehicleEF	LDT1	0.14	0.14
tbIVehicleEF	LDT1	0.13	0.10
tbIVehicleEF	LDT1	1.55	1.42
tbIVehicleEF	LDT1	0.52	0.43
tbIVehicleEF	LDT1	4.2510e-003	4.2550e-003
tbIVehicleEF	LDT1	9.6000e-004	9.4200e-004
tbIVehicleEF	LDT1	0.21	0.19
tbIVehicleEF	LDT1	0.42	0.39
tbIVehicleEF	LDT1	0.14	0.14

tbIVehicleEF	LDT1	0.17	0.13
tbIVehicleEF	LDT1	1.55	1.42
tbIVehicleEF	LDT1	0.56	0.46
tbIVehicleEF	LDT2	0.02	0.02
tbIVehicleEF	LDT2	0.02	0.01
tbIVehicleEF	LDT2	2.09	1.70
tbIVehicleEF	LDT2	3.90	3.16
tbIVehicleEF	LDT2	468.21	442.97
tbIVehicleEF	LDT2	93.61	88.90
tbIVehicleEF	LDT2	0.18	0.18
tbIVehicleEF	LDT2	0.25	0.20
tbIVehicleEF	LDT2	0.38	0.30
tbIVehicleEF	LDT2	2.5700e-003	2.2860e-003
tbIVehicleEF	LDT2	2.9410e-003	2.8890e-003
tbIVehicleEF	LDT2	2.3500e-003	2.1010e-003
tbIVehicleEF	LDT2	2.6960e-003	2.6610e-003
tbIVehicleEF	LDT2	0.08	0.07
tbIVehicleEF	LDT2	0.18	0.17
tbIVehicleEF	LDT2	0.07	0.07
tbIVehicleEF	LDT2	0.06	0.05
tbIVehicleEF	LDT2	0.60	0.54
tbIVehicleEF	LDT2	0.30	0.24
tbIVehicleEF	LDT2	5.0750e-003	5.0780e-003
tbIVehicleEF	LDT2	1.0680e-003	1.0560e-003
tbIVehicleEF	LDT2	0.08	0.07
tbIVehicleEF	LDT2	0.18	0.17
tbIVehicleEF	LDT2	0.07	0.07
tbIVehicleEF	LDT2	0.08	0.07
tbIVehicleEF	LDT2	0.60	0.54
tbIVehicleEF	LDT2	0.32	0.25

tbIVehicleEF	LDT2	0.02	0.02
tbIVehicleEF	LDT2	0.02	0.01
tbIVehicleEF	LDT2	2.24	1.83
tbIVehicleEF	LDT2	3.09	2.50
tbIVehicleEF	LDT2	488.41	462.14
tbIVehicleEF	LDT2	93.61	88.90
tbIVehicleEF	LDT2	0.18	0.18
tbIVehicleEF	LDT2	0.22	0.17
tbIVehicleEF	LDT2	0.35	0.28
tbIVehicleEF	LDT2	2.5700e-003	2.2860e-003
tbIVehicleEF	LDT2	2.9410e-003	2.8890e-003
tbIVehicleEF	LDT2	2.3500e-003	2.1010e-003
tbIVehicleEF	LDT2	2.6960e-003	2.6610e-003
tbIVehicleEF	LDT2	0.13	0.12
tbIVehicleEF	LDT2	0.19	0.18
tbIVehicleEF	LDT2	0.10	0.10
tbIVehicleEF	LDT2	0.06	0.05
tbIVehicleEF	LDT2	0.56	0.50
tbIVehicleEF	LDT2	0.26	0.20
tbIVehicleEF	LDT2	5.2950e-003	5.3000e-003
tbIVehicleEF	LDT2	1.0540e-003	1.0450e-003
tbIVehicleEF	LDT2	0.13	0.12
tbIVehicleEF	LDT2	0.19	0.18
tbIVehicleEF	LDT2	0.10	0.10
tbIVehicleEF	LDT2	0.09	0.07
tbIVehicleEF	LDT2	0.56	0.50
tbIVehicleEF	LDT2	0.28	0.22
tbIVehicleEF	LDT2	0.02	0.02
tbIVehicleEF	LDT2	0.02	0.01
tbIVehicleEF	LDT2	2.03	1.65

tbIVehicleEF	LDT2	4.08	3.30
tbIVehicleEF	LDT2	460.73	435.87
tbIVehicleEF	LDT2	93.61	88.90
tbIVehicleEF	LDT2	0.18	0.18
tbIVehicleEF	LDT2	0.24	0.19
tbIVehicleEF	LDT2	0.38	0.30
tbIVehicleEF	LDT2	2.5700e-003	2.2860e-003
tbIVehicleEF	LDT2	2.9410e-003	2.8890e-003
tbIVehicleEF	LDT2	2.3500e-003	2.1010e-003
tbIVehicleEF	LDT2	2.6960e-003	2.6610e-003
tbIVehicleEF	LDT2	0.08	0.07
tbIVehicleEF	LDT2	0.21	0.19
tbIVehicleEF	LDT2	0.07	0.06
tbIVehicleEF	LDT2	0.06	0.04
tbIVehicleEF	LDT2	0.71	0.63
tbIVehicleEF	LDT2	0.31	0.25
tbIVehicleEF	LDT2	4.9930e-003	4.9960e-003
tbIVehicleEF	LDT2	1.0710e-003	1.0590e-003
tbIVehicleEF	LDT2	0.08	0.07
tbIVehicleEF	LDT2	0.21	0.19
tbIVehicleEF	LDT2	0.07	0.06
tbIVehicleEF	LDT2	0.08	0.06
tbIVehicleEF	LDT2	0.71	0.63
tbIVehicleEF	LDT2	0.33	0.26
tbIVehicleEF	LHD1	1.3770e-003	1.3670e-003
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	0.20	0.20
tbIVehicleEF	LHD1	2.19	1.82
tbIVehicleEF	LHD1	6.49	5.80



tbIVehicleEF	LHD1	8.22	8.05
tbIVehicleEF	LHD1	602.22	592.34
tbIVehicleEF	LHD1	48.16	47.48
tbIVehicleEF	LHD1	0.04	0.04
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	1.34	1.16
tbIVehicleEF	LHD1	1.68	1.62
tbIVehicleEF	LHD1	3.7400e-004	3.6500e-004
tbIVehicleEF	LHD1	0.04	0.04
tbIVehicleEF	LHD1	8.7210e-003	8.7170e-003
tbIVehicleEF	LHD1	8.3690e-003	7.5590e-003
tbIVehicleEF	LHD1	1.7820e-003	1.5190e-003
tbIVehicleEF	LHD1	3.4400e-004	3.3600e-004
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	2.1800e-003	2.1790e-003
tbIVehicleEF	LHD1	7.7020e-003	6.9580e-003
tbIVehicleEF	LHD1	1.6270e-003	1.3900e-003
tbIVehicleEF	LHD1	3.3330e-003	3.1330e-003
tbIVehicleEF	LHD1	0.08	0.08
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	1.9270e-003	1.8880e-003
tbIVehicleEF	LHD1	0.15	0.13
tbIVehicleEF	LHD1	0.43	0.42
tbIVehicleEF	LHD1	0.60	0.54
tbIVehicleEF	LHD1	8.7000e-005	8.6000e-005
tbIVehicleEF	LHD1	6.0980e-003	6.1160e-003
tbIVehicleEF	LHD1	6.0900e-004	5.9900e-004
tbIVehicleEF	LHD1	3.3330e-003	3.1330e-003
tbIVehicleEF	LHD1	0.08	0.08
tbIVehicleEF	LHD1	0.03	0.03

tbIVehicleEF	LHD1	1.9270e-003	1.8880e-003
tbIVehicleEF	LHD1	0.18	0.15
tbIVehicleEF	LHD1	0.43	0.42
tbIVehicleEF	LHD1	0.64	0.58
tbIVehicleEF	LHD1	1.3770e-003	1.3670e-003
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	0.20	0.20
tbIVehicleEF	LHD1	2.22	1.85
tbIVehicleEF	LHD1	5.25	4.69
tbIVehicleEF	LHD1	8.22	8.05
tbIVehicleEF	LHD1	602.22	592.34
tbIVehicleEF	LHD1	48.16	47.48
tbIVehicleEF	LHD1	0.04	0.04
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	1.23	1.07
tbIVehicleEF	LHD1	1.61	1.56
tbIVehicleEF	LHD1	3.7400e-004	3.6500e-004
tbIVehicleEF	LHD1	0.04	0.04
tbIVehicleEF	LHD1	8.7210e-003	8.7170e-003
tbIVehicleEF	LHD1	8.3690e-003	7.5590e-003
tbIVehicleEF	LHD1	1.7820e-003	1.5190e-003
tbIVehicleEF	LHD1	3.4400e-004	3.3600e-004
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	2.1800e-003	2.1790e-003
tbIVehicleEF	LHD1	7.7020e-003	6.9580e-003
tbIVehicleEF	LHD1	1.6270e-003	1.3900e-003
tbIVehicleEF	LHD1	5.0030e-003	4.6870e-003
tbIVehicleEF	LHD1	0.08	0.08
tbIVehicleEF	LHD1	0.03	0.03

tbIVehicleEF	LHD1	2.8300e-003	2.7320e-003
tbIVehicleEF	LHD1	0.16	0.13
tbIVehicleEF	LHD1	0.42	0.41
tbIVehicleEF	LHD1	0.52	0.48
tbIVehicleEF	LHD1	8.7000e-005	8.6000e-005
tbIVehicleEF	LHD1	6.0990e-003	6.1160e-003
tbIVehicleEF	LHD1	5.8700e-004	5.8000e-004
tbIVehicleEF	LHD1	5.0030e-003	4.6870e-003
tbIVehicleEF	LHD1	0.08	0.08
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	2.8300e-003	2.7320e-003
tbIVehicleEF	LHD1	0.18	0.15
tbIVehicleEF	LHD1	0.42	0.41
tbIVehicleEF	LHD1	0.56	0.51
tbIVehicleEF	LHD1	1.3770e-003	1.3670e-003
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	0.20	0.20
tbIVehicleEF	LHD1	2.18	1.81
tbIVehicleEF	LHD1	6.71	5.99
tbIVehicleEF	LHD1	8.22	8.05
tbIVehicleEF	LHD1	602.22	592.34
tbIVehicleEF	LHD1	48.16	47.48
tbIVehicleEF	LHD1	0.04	0.04
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	1.31	1.13
tbIVehicleEF	LHD1	1.69	1.63
tbIVehicleEF	LHD1	3.7400e-004	3.6500e-004
tbIVehicleEF	LHD1	0.04	0.04
tbIVehicleEF	LHD1	8.7210e-003	8.7170e-003

tbIVehicleEF	LHD1	8.3690e-003	7.5590e-003
tbIVehicleEF	LHD1	1.7820e-003	1.5190e-003
tbIVehicleEF	LHD1	3.4400e-004	3.3600e-004
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	2.1800e-003	2.1790e-003
tbIVehicleEF	LHD1	7.7020e-003	6.9580e-003
tbIVehicleEF	LHD1	1.6270e-003	1.3900e-003
tbIVehicleEF	LHD1	3.6840e-003	3.4110e-003
tbIVehicleEF	LHD1	0.09	0.09
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	1.9440e-003	1.8900e-003
tbIVehicleEF	LHD1	0.15	0.13
tbIVehicleEF	LHD1	0.47	0.46
tbIVehicleEF	LHD1	0.61	0.55
tbIVehicleEF	LHD1	8.7000e-005	8.6000e-005
tbIVehicleEF	LHD1	6.0980e-003	6.1160e-003
tbIVehicleEF	LHD1	6.1300e-004	6.0300e-004
tbIVehicleEF	LHD1	3.6840e-003	3.4110e-003
tbIVehicleEF	LHD1	0.09	0.09
tbIVehicleEF	LHD1	0.03	0.03
tbIVehicleEF	LHD1	1.9440e-003	1.8900e-003
tbIVehicleEF	LHD1	0.18	0.15
tbIVehicleEF	LHD1	0.47	0.46
tbIVehicleEF	LHD1	0.65	0.59
tbIVehicleEF	LHD2	1.1150e-003	1.1080e-003
tbIVehicleEF	LHD2	0.02	0.01
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	0.16	0.16
tbIVehicleEF	LHD2	1.65	1.27
tbIVehicleEF	LHD2	4.59	3.88

tbIVehicleEF	LHD2	9.01	8.82
tbIVehicleEF	LHD2	576.77	566.57
tbIVehicleEF	LHD2	35.55	34.81
tbIVehicleEF	LHD2	6.2460e-003	6.2830e-003
tbIVehicleEF	LHD2	0.08	0.08
tbIVehicleEF	LHD2	2.19	1.89
tbIVehicleEF	LHD2	1.19	1.14
tbIVehicleEF	LHD2	9.3000e-004	9.1400e-004
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	9.7170e-003	9.7040e-003
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	1.3370e-003	1.0190e-003
tbIVehicleEF	LHD2	8.5600e-004	8.4100e-004
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	2.4290e-003	2.4260e-003
tbIVehicleEF	LHD2	0.02	0.01
tbIVehicleEF	LHD2	1.1950e-003	9.2000e-004
tbIVehicleEF	LHD2	2.4100e-003	2.1190e-003
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	1.3700e-003	1.2630e-003
tbIVehicleEF	LHD2	0.14	0.11
tbIVehicleEF	LHD2	0.34	0.32
tbIVehicleEF	LHD2	0.42	0.36
tbIVehicleEF	LHD2	5.7700e-003	5.7800e-003
tbIVehicleEF	LHD2	4.4600e-004	4.3200e-004
tbIVehicleEF	LHD2	2.4100e-003	2.1190e-003
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	1.3700e-003	1.2630e-003

tbIVehicleEF	LHD2	0.16	0.13
tbIVehicleEF	LHD2	0.34	0.32
tbIVehicleEF	LHD2	0.45	0.39
tbIVehicleEF	LHD2	1.1150e-003	1.1080e-003
tbIVehicleEF	LHD2	0.02	0.01
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	0.16	0.16
tbIVehicleEF	LHD2	1.66	1.28
tbIVehicleEF	LHD2	3.76	3.17
tbIVehicleEF	LHD2	9.01	8.82
tbIVehicleEF	LHD2	576.77	566.57
tbIVehicleEF	LHD2	35.55	34.81
tbIVehicleEF	LHD2	6.2460e-003	6.2830e-003
tbIVehicleEF	LHD2	0.08	0.08
tbIVehicleEF	LHD2	2.05	1.77
tbIVehicleEF	LHD2	1.15	1.10
tbIVehicleEF	LHD2	9.3000e-004	9.1400e-004
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	9.7170e-003	9.7040e-003
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	1.3370e-003	1.0190e-003
tbIVehicleEF	LHD2	8.5600e-004	8.4100e-004
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	2.4290e-003	2.4260e-003
tbIVehicleEF	LHD2	0.02	0.01
tbIVehicleEF	LHD2	1.1950e-003	9.2000e-004
tbIVehicleEF	LHD2	3.6230e-003	3.1700e-003
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	2.0270e-003	1.8350e-003

tbIVehicleEF	LHD2	0.14	0.11
tbIVehicleEF	LHD2	0.33	0.31
tbIVehicleEF	LHD2	0.37	0.32
tbIVehicleEF	LHD2	5.7700e-003	5.7800e-003
tbIVehicleEF	LHD2	4.3100e-004	4.2000e-004
tbIVehicleEF	LHD2	3.6230e-003	3.1700e-003
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	2.0270e-003	1.8350e-003
tbIVehicleEF	LHD2	0.16	0.13
tbIVehicleEF	LHD2	0.33	0.31
tbIVehicleEF	LHD2	0.40	0.34
tbIVehicleEF	LHD2	1.1150e-003	1.1080e-003
tbIVehicleEF	LHD2	0.02	0.01
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	0.16	0.16
tbIVehicleEF	LHD2	1.64	1.26
tbIVehicleEF	LHD2	4.74	4.00
tbIVehicleEF	LHD2	9.01	8.82
tbIVehicleEF	LHD2	576.77	566.57
tbIVehicleEF	LHD2	35.55	34.81
tbIVehicleEF	LHD2	6.2460e-003	6.2830e-003
tbIVehicleEF	LHD2	0.08	0.08
tbIVehicleEF	LHD2	2.15	1.85
tbIVehicleEF	LHD2	1.20	1.15
tbIVehicleEF	LHD2	9.3000e-004	9.1400e-004
tbIVehicleEF	LHD2	0.06	0.06
tbIVehicleEF	LHD2	9.7170e-003	9.7040e-003
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	1.3370e-003	1.0190e-003

tbIVehicleEF	LHD2	8.5600e-004	8.4100e-004
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	2.4290e-003	2.4260e-003
tbIVehicleEF	LHD2	0.02	0.01
tbIVehicleEF	LHD2	1.1950e-003	9.2000e-004
tbIVehicleEF	LHD2	2.6660e-003	2.2990e-003
tbIVehicleEF	LHD2	0.07	0.07
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	1.3740e-003	1.2530e-003
tbIVehicleEF	LHD2	0.14	0.11
tbIVehicleEF	LHD2	0.38	0.35
tbIVehicleEF	LHD2	0.43	0.37
tbIVehicleEF	LHD2	5.7700e-003	5.7800e-003
tbIVehicleEF	LHD2	4.4800e-004	4.3500e-004
tbIVehicleEF	LHD2	2.6660e-003	2.2990e-003
tbIVehicleEF	LHD2	0.07	0.07
tbIVehicleEF	LHD2	0.03	0.03
tbIVehicleEF	LHD2	1.3740e-003	1.2530e-003
tbIVehicleEF	LHD2	0.16	0.13
tbIVehicleEF	LHD2	0.38	0.35
tbIVehicleEF	LHD2	0.46	0.40
tbIVehicleEF	MCY	22.89	21.17
tbIVehicleEF	MCY	9.71	9.82
tbIVehicleEF	MCY	147.17	147.81
tbIVehicleEF	MCY	46.38	43.76
tbIVehicleEF	MCY	3.6960e-003	3.6910e-003
tbIVehicleEF	MCY	1.19	1.17
tbIVehicleEF	MCY	0.31	0.31
tbIVehicleEF	MCY	0.04	0.04
tbIVehicleEF	MCY	7.0000e-004	5.0600e-004



tbIVehicleEF	MCY	2.3630e-003	1.6970e-003
tbIVehicleEF	MCY	0.02	0.02
tbIVehicleEF	MCY	5.6000e-004	4.1100e-004
tbIVehicleEF	MCY	1.8490e-003	1.3480e-003
tbIVehicleEF	MCY	0.95	0.93
tbIVehicleEF	MCY	0.50	0.46
tbIVehicleEF	MCY	0.57	0.55
tbIVehicleEF	MCY	2.51	2.43
tbIVehicleEF	MCY	1.88	1.57
tbIVehicleEF	MCY	2.17	2.12
tbIVehicleEF	MCY	1.9330e-003	1.9410e-003
tbIVehicleEF	MCY	6.9200e-004	6.7500e-004
tbIVehicleEF	MCY	0.95	0.93
tbIVehicleEF	MCY	0.50	0.46
tbIVehicleEF	MCY	0.57	0.55
tbIVehicleEF	MCY	2.76	2.67
tbIVehicleEF	MCY	1.88	1.57
tbIVehicleEF	MCY	2.34	2.28
tbIVehicleEF	MCY	21.75	20.17
tbIVehicleEF	MCY	8.68	8.72
tbIVehicleEF	MCY	147.17	147.81
tbIVehicleEF	MCY	46.38	43.76
tbIVehicleEF	MCY	3.6960e-003	3.6910e-003
tbIVehicleEF	MCY	1.03	1.02
tbIVehicleEF	MCY	0.29	0.29
tbIVehicleEF	MCY	0.04	0.04
tbIVehicleEF	MCY	7.0000e-004	5.0600e-004
tbIVehicleEF	MCY	2.3630e-003	1.6970e-003
tbIVehicleEF	MCY	0.02	0.02
tbIVehicleEF	MCY	5.6000e-004	4.1100e-004

tbIVehicleEF	MCY	1.8490e-003	1.3480e-003
tbIVehicleEF	MCY	1.53	1.50
tbIVehicleEF	MCY	0.54	0.50
tbIVehicleEF	MCY	0.95	0.92
tbIVehicleEF	MCY	2.42	2.36
tbIVehicleEF	MCY	1.75	1.45
tbIVehicleEF	MCY	1.89	1.86
tbIVehicleEF	MCY	1.9120e-003	1.9230e-003
tbIVehicleEF	MCY	6.6700e-004	6.4900e-004
tbIVehicleEF	MCY	1.53	1.50
tbIVehicleEF	MCY	0.54	0.50
tbIVehicleEF	MCY	0.95	0.92
tbIVehicleEF	MCY	2.66	2.59
tbIVehicleEF	MCY	1.75	1.45
tbIVehicleEF	MCY	2.04	1.99
tbIVehicleEF	MCY	23.10	21.35
tbIVehicleEF	MCY	9.89	10.02
tbIVehicleEF	MCY	147.17	147.81
tbIVehicleEF	MCY	46.38	43.76
tbIVehicleEF	MCY	3.6960e-003	3.6910e-003
tbIVehicleEF	MCY	1.16	1.14
tbIVehicleEF	MCY	0.31	0.31
tbIVehicleEF	MCY	0.04	0.04
tbIVehicleEF	MCY	7.0000e-004	5.0600e-004
tbIVehicleEF	MCY	2.3630e-003	1.6970e-003
tbIVehicleEF	MCY	0.02	0.02
tbIVehicleEF	MCY	5.6000e-004	4.1100e-004
tbIVehicleEF	MCY	1.8490e-003	1.3480e-003
tbIVehicleEF	MCY	1.05	1.02
tbIVehicleEF	MCY	0.65	0.59

tbIVehicleEF	MCY	0.55	0.53
tbIVehicleEF	MCY	2.53	2.45
tbIVehicleEF	MCY	2.17	1.84
tbIVehicleEF	MCY	2.23	2.17
tbIVehicleEF	MCY	1.9360e-003	1.9440e-003
tbIVehicleEF	MCY	6.9600e-004	6.7900e-004
tbIVehicleEF	MCY	1.05	1.02
tbIVehicleEF	MCY	0.65	0.59
tbIVehicleEF	MCY	0.55	0.53
tbIVehicleEF	MCY	2.78	2.69
tbIVehicleEF	MCY	2.17	1.84
tbIVehicleEF	MCY	2.40	2.34
tbIVehicleEF	MDV	0.03	0.03
tbIVehicleEF	MDV	0.03	0.03
tbIVehicleEF	MDV	2.87	2.56
tbIVehicleEF	MDV	5.80	5.19
tbIVehicleEF	MDV	606.41	580.22
tbIVehicleEF	MDV	120.57	115.97
tbIVehicleEF	MDV	0.13	0.13
tbIVehicleEF	MDV	0.37	0.32
tbIVehicleEF	MDV	0.56	0.49
tbIVehicleEF	MDV	2.8070e-003	2.6430e-003
tbIVehicleEF	MDV	3.5390e-003	3.4430e-003
tbIVehicleEF	MDV	2.5760e-003	2.4310e-003
tbIVehicleEF	MDV	3.2530e-003	3.1710e-003
tbIVehicleEF	MDV	0.09	0.09
tbIVehicleEF	MDV	0.20	0.21
tbIVehicleEF	MDV	0.08	0.09
tbIVehicleEF	MDV	0.09	0.08
tbIVehicleEF	MDV	0.64	0.65

tbIVehicleEF	MDV	0.51	0.45
tbIVehicleEF	MDV	6.4380e-003	6.4590e-003
tbIVehicleEF	MDV	1.3650e-003	1.3580e-003
tbIVehicleEF	MDV	0.09	0.09
tbIVehicleEF	MDV	0.20	0.21
tbIVehicleEF	MDV	0.08	0.09
tbIVehicleEF	MDV	0.13	0.11
tbIVehicleEF	MDV	0.64	0.65
tbIVehicleEF	MDV	0.54	0.48
tbIVehicleEF	MDV	0.03	0.03
tbIVehicleEF	MDV	0.03	0.03
tbIVehicleEF	MDV	3.08	2.75
tbIVehicleEF	MDV	4.60	4.11
tbIVehicleEF	MDV	632.24	604.99
tbIVehicleEF	MDV	120.57	115.97
tbIVehicleEF	MDV	0.13	0.13
tbIVehicleEF	MDV	0.33	0.28
tbIVehicleEF	MDV	0.52	0.46
tbIVehicleEF	MDV	2.8070e-003	2.6430e-003
tbIVehicleEF	MDV	3.5390e-003	3.4430e-003
tbIVehicleEF	MDV	2.5760e-003	2.4310e-003
tbIVehicleEF	MDV	3.2530e-003	3.1710e-003
tbIVehicleEF	MDV	0.14	0.14
tbIVehicleEF	MDV	0.21	0.22
tbIVehicleEF	MDV	0.12	0.12
tbIVehicleEF	MDV	0.09	0.08
tbIVehicleEF	MDV	0.60	0.61
tbIVehicleEF	MDV	0.43	0.38
tbIVehicleEF	MDV	6.7150e-003	6.7370e-003
tbIVehicleEF	MDV	1.3430e-003	1.3390e-003

tbIVehicleEF	MDV	0.14	0.14
tbIVehicleEF	MDV	0.21	0.22
tbIVehicleEF	MDV	0.12	0.12
tbIVehicleEF	MDV	0.13	0.11
tbIVehicleEF	MDV	0.60	0.61
tbIVehicleEF	MDV	0.46	0.41
tbIVehicleEF	MDV	0.03	0.03
tbIVehicleEF	MDV	0.03	0.03
tbIVehicleEF	MDV	2.79	2.48
tbIVehicleEF	MDV	6.06	5.43
tbIVehicleEF	MDV	596.84	571.04
tbIVehicleEF	MDV	120.57	115.97
tbIVehicleEF	MDV	0.13	0.13
tbIVehicleEF	MDV	0.36	0.31
tbIVehicleEF	MDV	0.57	0.50
tbIVehicleEF	MDV	2.8070e-003	2.6430e-003
tbIVehicleEF	MDV	3.5390e-003	3.4430e-003
tbIVehicleEF	MDV	2.5760e-003	2.4310e-003
tbIVehicleEF	MDV	3.2530e-003	3.1710e-003
tbIVehicleEF	MDV	0.09	0.09
tbIVehicleEF	MDV	0.22	0.23
tbIVehicleEF	MDV	0.08	0.08
tbIVehicleEF	MDV	0.09	0.08
tbIVehicleEF	MDV	0.75	0.76
tbIVehicleEF	MDV	0.53	0.46
tbIVehicleEF	MDV	6.3360e-003	6.3560e-003
tbIVehicleEF	MDV	1.3690e-003	1.3620e-003
tbIVehicleEF	MDV	0.09	0.09
tbIVehicleEF	MDV	0.22	0.23
tbIVehicleEF	MDV	0.08	0.08

tbIVehicleEF	MDV	0.12	0.11
tbIVehicleEF	MDV	0.75	0.76
tbIVehicleEF	MDV	0.56	0.50
tbIVehicleEF	MH	7.77	5.14
tbIVehicleEF	MH	11.97	9.68
tbIVehicleEF	MH	670.28	658.34
tbIVehicleEF	MH	35.76	33.03
tbIVehicleEF	MH	1.6450e-003	1.6550e-003
tbIVehicleEF	MH	1.75	1.49
tbIVehicleEF	MH	1.03	0.91
tbIVehicleEF	MH	0.05	0.05
tbIVehicleEF	MH	8.4600e-003	8.4530e-003
tbIVehicleEF	MH	0.03	0.02
tbIVehicleEF	MH	2.6470e-003	1.7560e-003
tbIVehicleEF	MH	0.02	0.02
tbIVehicleEF	MH	2.1150e-003	2.1130e-003
tbIVehicleEF	MH	0.02	0.02
tbIVehicleEF	MH	2.2420e-003	1.5230e-003
tbIVehicleEF	MH	1.54	1.31
tbIVehicleEF	MH	0.11	0.09
tbIVehicleEF	MH	0.63	0.54
tbIVehicleEF	MH	0.25	0.17
tbIVehicleEF	MH	2.33	2.19
tbIVehicleEF	MH	0.78	0.59
tbIVehicleEF	MH	6.8640e-003	6.8380e-003
tbIVehicleEF	MH	5.7500e-004	5.1200e-004
tbIVehicleEF	MH	1.54	1.31
tbIVehicleEF	MH	0.11	0.09
tbIVehicleEF	MH	0.63	0.54
tbIVehicleEF	MH	0.29	0.20

tbIVehicleEF	MH	2.33	2.19
tbIVehicleEF	MH	0.83	0.63
tbIVehicleEF	MH	7.76	5.17
tbIVehicleEF	MH	9.56	7.68
tbIVehicleEF	MH	670.28	658.34
tbIVehicleEF	MH	35.76	33.03
tbIVehicleEF	MH	1.6450e-003	1.6550e-003
tbIVehicleEF	MH	1.59	1.36
tbIVehicleEF	MH	0.98	0.87
tbIVehicleEF	MH	0.05	0.05
tbIVehicleEF	MH	8.4600e-003	8.4530e-003
tbIVehicleEF	MH	0.03	0.02
tbIVehicleEF	MH	2.6470e-003	1.7560e-003
tbIVehicleEF	MH	0.02	0.02
tbIVehicleEF	MH	2.1150e-003	2.1130e-003
tbIVehicleEF	MH	0.02	0.02
tbIVehicleEF	MH	2.2420e-003	1.5230e-003
tbIVehicleEF	MH	2.20	1.87
tbIVehicleEF	MH	0.11	0.09
tbIVehicleEF	MH	0.88	0.75
tbIVehicleEF	MH	0.25	0.17
tbIVehicleEF	MH	2.27	2.14
tbIVehicleEF	MH	0.64	0.49
tbIVehicleEF	MH	6.8630e-003	6.8380e-003
tbIVehicleEF	MH	5.3300e-004	4.7800e-004
tbIVehicleEF	MH	2.20	1.87
tbIVehicleEF	MH	0.11	0.09
tbIVehicleEF	MH	0.88	0.75
tbIVehicleEF	MH	0.29	0.20
tbIVehicleEF	MH	2.27	2.14

tbIVehicleEF	MH	0.69	0.53
tbIVehicleEF	MH	7.77	5.13
tbIVehicleEF	MH	12.41	10.05
tbIVehicleEF	MH	670.28	658.34
tbIVehicleEF	MH	35.76	33.03
tbIVehicleEF	MH	1.6450e-003	1.6550e-003
tbIVehicleEF	MH	1.71	1.46
tbIVehicleEF	MH	1.04	0.91
tbIVehicleEF	MH	0.05	0.05
tbIVehicleEF	MH	8.4600e-003	8.4530e-003
tbIVehicleEF	MH	0.03	0.02
tbIVehicleEF	MH	2.6470e-003	1.7560e-003
tbIVehicleEF	MH	0.02	0.02
tbIVehicleEF	MH	2.1150e-003	2.1130e-003
tbIVehicleEF	MH	0.02	0.02
tbIVehicleEF	MH	2.2420e-003	1.5230e-003
tbIVehicleEF	MH	1.82	1.53
tbIVehicleEF	MH	0.14	0.12
tbIVehicleEF	MH	0.67	0.57
tbIVehicleEF	MH	0.25	0.17
tbIVehicleEF	MH	2.46	2.31
tbIVehicleEF	MH	0.80	0.61
tbIVehicleEF	MH	6.8640e-003	6.8380e-003
tbIVehicleEF	MH	5.8300e-004	5.1800e-004
tbIVehicleEF	MH	1.82	1.53
tbIVehicleEF	MH	0.14	0.12
tbIVehicleEF	MH	0.67	0.57
tbIVehicleEF	MH	0.29	0.20
tbIVehicleEF	MH	2.46	2.31
tbIVehicleEF	MH	0.86	0.65



tbIVehicleEF	MHD	9.1490e-003	7.4170e-003
tbIVehicleEF	MHD	7.6140e-003	5.3470e-003
tbIVehicleEF	MHD	1.98	1.82
tbIVehicleEF	MHD	1.81	1.29
tbIVehicleEF	MHD	23.70	20.16
tbIVehicleEF	MHD	606.65	606.04
tbIVehicleEF	MHD	1,015.49	994.23
tbIVehicleEF	MHD	62.16	57.28
tbIVehicleEF	MHD	0.02	0.02
tbIVehicleEF	MHD	7.20	6.27
tbIVehicleEF	MHD	4.49	3.19
tbIVehicleEF	MHD	2.37	2.11
tbIVehicleEF	MHD	0.04	0.02
tbIVehicleEF	MHD	0.11	0.11
tbIVehicleEF	MHD	0.01	0.01
tbIVehicleEF	MHD	0.12	0.08
tbIVehicleEF	MHD	4.5660e-003	3.1220e-003
tbIVehicleEF	MHD	0.04	0.02
tbIVehicleEF	MHD	0.05	0.05
tbIVehicleEF	MHD	2.7920e-003	2.7960e-003
tbIVehicleEF	MHD	0.11	0.07
tbIVehicleEF	MHD	3.8030e-003	2.6590e-003
tbIVehicleEF	MHD	3.7860e-003	3.0790e-003
tbIVehicleEF	MHD	0.17	0.13
tbIVehicleEF	MHD	0.20	0.16
tbIVehicleEF	MHD	2.2230e-003	1.8810e-003
tbIVehicleEF	MHD	0.22	0.16
tbIVehicleEF	MHD	0.67	0.55
tbIVehicleEF	MHD	1.66	1.33
tbIVehicleEF	MHD	5.8760e-003	5.9920e-003

tbIVehicleEF	MHD	9.9130e-003	9.9000e-003
tbIVehicleEF	MHD	1.0540e-003	9.5100e-004
tbIVehicleEF	MHD	3.7860e-003	3.0790e-003
tbIVehicleEF	MHD	0.17	0.13
tbIVehicleEF	MHD	0.22	0.18
tbIVehicleEF	MHD	2.2230e-003	1.8810e-003
tbIVehicleEF	MHD	0.26	0.18
tbIVehicleEF	MHD	0.67	0.55
tbIVehicleEF	MHD	1.78	1.42
tbIVehicleEF	MHD	8.6220e-003	6.9900e-003
tbIVehicleEF	MHD	7.6140e-003	5.3470e-003
tbIVehicleEF	MHD	1.44	1.33
tbIVehicleEF	MHD	1.81	1.30
tbIVehicleEF	MHD	19.59	16.49
tbIVehicleEF	MHD	642.69	642.05
tbIVehicleEF	MHD	1,015.49	994.23
tbIVehicleEF	MHD	62.16	57.28
tbIVehicleEF	MHD	0.02	0.02
tbIVehicleEF	MHD	7.43	6.47
tbIVehicleEF	MHD	4.22	3.00
tbIVehicleEF	MHD	2.27	2.03
tbIVehicleEF	MHD	0.04	0.02
tbIVehicleEF	MHD	0.11	0.11
tbIVehicleEF	MHD	0.01	0.01
tbIVehicleEF	MHD	0.12	0.08
tbIVehicleEF	MHD	4.5660e-003	3.1220e-003
tbIVehicleEF	MHD	0.03	0.02
tbIVehicleEF	MHD	0.05	0.05
tbIVehicleEF	MHD	2.7920e-003	2.7960e-003
tbIVehicleEF	MHD	0.11	0.07

tbIVehicleEF	MHD	3.8030e-003	2.6590e-003
tbIVehicleEF	MHD	5.7560e-003	4.6580e-003
tbIVehicleEF	MHD	0.17	0.13
tbIVehicleEF	MHD	0.19	0.15
tbIVehicleEF	MHD	3.3540e-003	2.7850e-003
tbIVehicleEF	MHD	0.22	0.16
tbIVehicleEF	MHD	0.65	0.53
tbIVehicleEF	MHD	1.43	1.15
tbIVehicleEF	MHD	6.2250e-003	6.3480e-003
tbIVehicleEF	MHD	9.9130e-003	9.9000e-003
tbIVehicleEF	MHD	9.8300e-004	8.8800e-004
tbIVehicleEF	MHD	5.7560e-003	4.6580e-003
tbIVehicleEF	MHD	0.17	0.13
tbIVehicleEF	MHD	0.21	0.17
tbIVehicleEF	MHD	3.3540e-003	2.7850e-003
tbIVehicleEF	MHD	0.26	0.18
tbIVehicleEF	MHD	0.65	0.53
tbIVehicleEF	MHD	1.53	1.23
tbIVehicleEF	MHD	9.8770e-003	8.0070e-003
tbIVehicleEF	MHD	7.6140e-003	5.3470e-003
tbIVehicleEF	MHD	2.73	2.51
tbIVehicleEF	MHD	1.81	1.29
tbIVehicleEF	MHD	24.49	20.87
tbIVehicleEF	MHD	556.87	556.32
tbIVehicleEF	MHD	1,015.49	994.23
tbIVehicleEF	MHD	62.16	57.28
tbIVehicleEF	MHD	0.02	0.02
tbIVehicleEF	MHD	6.88	5.99
tbIVehicleEF	MHD	4.41	3.13
tbIVehicleEF	MHD	2.39	2.13

tbIVehicleEF	MHD	0.05	0.03
tbIVehicleEF	MHD	0.11	0.11
tbIVehicleEF	MHD	0.01	0.01
tbIVehicleEF	MHD	0.12	0.08
tbIVehicleEF	MHD	4.5660e-003	3.1220e-003
tbIVehicleEF	MHD	0.05	0.03
tbIVehicleEF	MHD	0.05	0.05
tbIVehicleEF	MHD	2.7920e-003	2.7960e-003
tbIVehicleEF	MHD	0.11	0.07
tbIVehicleEF	MHD	3.8030e-003	2.6590e-003
tbIVehicleEF	MHD	4.2380e-003	3.3880e-003
tbIVehicleEF	MHD	0.21	0.15
tbIVehicleEF	MHD	0.21	0.17
tbIVehicleEF	MHD	2.2660e-003	1.8990e-003
tbIVehicleEF	MHD	0.22	0.16
tbIVehicleEF	MHD	0.73	0.60
tbIVehicleEF	MHD	1.71	1.37
tbIVehicleEF	MHD	5.3940e-003	5.5000e-003
tbIVehicleEF	MHD	9.9130e-003	9.9000e-003
tbIVehicleEF	MHD	1.0680e-003	9.6300e-004
tbIVehicleEF	MHD	4.2380e-003	3.3880e-003
tbIVehicleEF	MHD	0.21	0.15
tbIVehicleEF	MHD	0.24	0.20
tbIVehicleEF	MHD	2.2660e-003	1.8990e-003
tbIVehicleEF	MHD	0.26	0.18
tbIVehicleEF	MHD	0.73	0.60
tbIVehicleEF	MHD	1.83	1.46
tbIVehicleEF	OBUS	0.02	0.02
tbIVehicleEF	OBUS	3.4320e-003	3.2660e-003
tbIVehicleEF	OBUS	2.30	2.36

tbIVehicleEF	OBUS	1.74	1.37
tbIVehicleEF	OBUS	11.22	10.33
tbIVehicleEF	OBUS	573.90	571.35
tbIVehicleEF	OBUS	1,120.43	1,112.31
tbIVehicleEF	OBUS	37.05	35.72
tbIVehicleEF	OBUS	2.4260e-003	2.4530e-003
tbIVehicleEF	OBUS	7.28	5.94
tbIVehicleEF	OBUS	5.80	4.26
tbIVehicleEF	OBUS	1.53	1.43
tbIVehicleEF	OBUS	0.06	0.02
tbIVehicleEF	OBUS	0.09	0.10
tbIVehicleEF	OBUS	0.01	0.01
tbIVehicleEF	OBUS	0.10	0.06
tbIVehicleEF	OBUS	1.1480e-003	8.8300e-004
tbIVehicleEF	OBUS	0.05	0.02
tbIVehicleEF	OBUS	0.04	0.04
tbIVehicleEF	OBUS	2.6200e-003	2.6430e-003
tbIVehicleEF	OBUS	0.09	0.05
tbIVehicleEF	OBUS	1.0010e-003	7.8600e-004
tbIVehicleEF	OBUS	9.2800e-004	9.3000e-004
tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.49	0.41
tbIVehicleEF	OBUS	4.5700e-004	4.8600e-004
tbIVehicleEF	OBUS	0.21	0.16
tbIVehicleEF	OBUS	0.29	0.30
tbIVehicleEF	OBUS	0.71	0.64
tbIVehicleEF	OBUS	5.5590e-003	5.6490e-003
tbIVehicleEF	OBUS	0.01	0.01
tbIVehicleEF	OBUS	5.7400e-004	5.5200e-004
tbIVehicleEF	OBUS	9.2800e-004	9.3000e-004

tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.56	0.47
tbIVehicleEF	OBUS	4.5700e-004	4.8600e-004
tbIVehicleEF	OBUS	0.25	0.18
tbIVehicleEF	OBUS	0.29	0.30
tbIVehicleEF	OBUS	0.76	0.69
tbIVehicleEF	OBUS	0.02	0.02
tbIVehicleEF	OBUS	3.4320e-003	3.2660e-003
tbIVehicleEF	OBUS	1.67	1.72
tbIVehicleEF	OBUS	1.76	1.38
tbIVehicleEF	OBUS	9.14	8.38
tbIVehicleEF	OBUS	607.99	605.30
tbIVehicleEF	OBUS	1,120.43	1,112.31
tbIVehicleEF	OBUS	37.05	35.72
tbIVehicleEF	OBUS	2.4260e-003	2.4530e-003
tbIVehicleEF	OBUS	7.51	6.13
tbIVehicleEF	OBUS	5.46	4.01
tbIVehicleEF	OBUS	1.47	1.38
tbIVehicleEF	OBUS	0.05	0.02
tbIVehicleEF	OBUS	0.09	0.10
tbIVehicleEF	OBUS	0.01	0.01
tbIVehicleEF	OBUS	0.10	0.06
tbIVehicleEF	OBUS	1.1480e-003	8.8300e-004
tbIVehicleEF	OBUS	0.05	0.01
tbIVehicleEF	OBUS	0.04	0.04
tbIVehicleEF	OBUS	2.6200e-003	2.6430e-003
tbIVehicleEF	OBUS	0.09	0.05
tbIVehicleEF	OBUS	1.0010e-003	7.8600e-004
tbIVehicleEF	OBUS	1.3450e-003	1.3440e-003
tbIVehicleEF	OBUS	0.03	0.03

tbIVehicleEF	OBUS	0.46	0.39
tbIVehicleEF	OBUS	6.6000e-004	6.8700e-004
tbIVehicleEF	OBUS	0.21	0.16
tbIVehicleEF	OBUS	0.28	0.29
tbIVehicleEF	OBUS	0.62	0.57
tbIVehicleEF	OBUS	5.8890e-003	5.9840e-003
tbIVehicleEF	OBUS	0.01	0.01
tbIVehicleEF	OBUS	5.3900e-004	5.1900e-004
tbIVehicleEF	OBUS	1.3450e-003	1.3440e-003
tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.53	0.44
tbIVehicleEF	OBUS	6.6000e-004	6.8700e-004
tbIVehicleEF	OBUS	0.25	0.18
tbIVehicleEF	OBUS	0.28	0.29
tbIVehicleEF	OBUS	0.66	0.60
tbIVehicleEF	OBUS	0.02	0.02
tbIVehicleEF	OBUS	3.4320e-003	3.2660e-003
tbIVehicleEF	OBUS	3.17	3.26
tbIVehicleEF	OBUS	1.74	1.36
tbIVehicleEF	OBUS	11.63	10.71
tbIVehicleEF	OBUS	526.81	524.48
tbIVehicleEF	OBUS	1,120.43	1,112.31
tbIVehicleEF	OBUS	37.05	35.72
tbIVehicleEF	OBUS	2.4260e-003	2.4530e-003
tbIVehicleEF	OBUS	6.96	5.67
tbIVehicleEF	OBUS	5.70	4.19
tbIVehicleEF	OBUS	1.54	1.45
tbIVehicleEF	OBUS	0.07	0.02
tbIVehicleEF	OBUS	0.09	0.10
tbIVehicleEF	OBUS	0.01	0.01

tbIVehicleEF	OBUS	0.10	0.06
tbIVehicleEF	OBUS	1.1480e-003	8.8300e-004
tbIVehicleEF	OBUS	0.07	0.02
tbIVehicleEF	OBUS	0.04	0.04
tbIVehicleEF	OBUS	2.6200e-003	2.6430e-003
tbIVehicleEF	OBUS	0.09	0.05
tbIVehicleEF	OBUS	1.0010e-003	7.8600e-004
tbIVehicleEF	OBUS	1.0220e-003	9.9400e-004
tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.53	0.45
tbIVehicleEF	OBUS	4.6000e-004	4.8100e-004
tbIVehicleEF	OBUS	0.21	0.16
tbIVehicleEF	OBUS	0.31	0.32
tbIVehicleEF	OBUS	0.73	0.66
tbIVehicleEF	OBUS	5.1030e-003	5.1850e-003
tbIVehicleEF	OBUS	0.01	0.01
tbIVehicleEF	OBUS	5.8100e-004	5.5800e-004
tbIVehicleEF	OBUS	1.0220e-003	9.9400e-004
tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.60	0.51
tbIVehicleEF	OBUS	4.6000e-004	4.8100e-004
tbIVehicleEF	OBUS	0.25	0.18
tbIVehicleEF	OBUS	0.31	0.32
tbIVehicleEF	OBUS	0.78	0.70
tbIVehicleEF	SBUS	5.3980e-003	5.4360e-003
tbIVehicleEF	SBUS	7.6510e-003	8.0050e-003
tbIVehicleEF	SBUS	1.04	1.06
tbIVehicleEF	SBUS	5.36	4.90
tbIVehicleEF	SBUS	39.37	36.92
tbIVehicleEF	SBUS	581.72	570.82



tbIVehicleEF	SBUS	1,155.83	1,130.57
tbIVehicleEF	SBUS	130.96	127.39
tbIVehicleEF	SBUS	5.4700e-004	5.4300e-004
tbIVehicleEF	SBUS	8.19	8.09
tbIVehicleEF	SBUS	8.55	8.44
tbIVehicleEF	SBUS	2.51	2.39
tbIVehicleEF	SBUS	0.03	0.03
tbIVehicleEF	SBUS	0.58	0.58
tbIVehicleEF	SBUS	0.01	0.01
tbIVehicleEF	SBUS	0.09	0.09
tbIVehicleEF	SBUS	7.8690e-003	7.0020e-003
tbIVehicleEF	SBUS	0.03	0.02
tbIVehicleEF	SBUS	0.25	0.25
tbIVehicleEF	SBUS	2.7730e-003	2.7720e-003
tbIVehicleEF	SBUS	0.08	0.08
tbIVehicleEF	SBUS	6.8680e-003	6.1480e-003
tbIVehicleEF	SBUS	0.04	0.04
tbIVehicleEF	SBUS	0.29	0.28
tbIVehicleEF	SBUS	0.12	0.12
tbIVehicleEF	SBUS	0.02	0.02
tbIVehicleEF	SBUS	0.46	0.45
tbIVehicleEF	SBUS	2.38	2.33
tbIVehicleEF	SBUS	2.56	2.37
tbIVehicleEF	SBUS	5.6340e-003	5.6430e-003
tbIVehicleEF	SBUS	0.01	0.01
tbIVehicleEF	SBUS	2.0260e-003	1.9720e-003
tbIVehicleEF	SBUS	0.04	0.04
tbIVehicleEF	SBUS	0.29	0.28
tbIVehicleEF	SBUS	0.13	0.13
tbIVehicleEF	SBUS	0.02	0.02

tbIVehicleEF	SBUS	0.51	0.50
tbIVehicleEF	SBUS	2.38	2.33
tbIVehicleEF	SBUS	2.74	2.54
tbIVehicleEF	SBUS	5.0870e-003	5.1230e-003
tbIVehicleEF	SBUS	7.6510e-003	8.0050e-003
tbIVehicleEF	SBUS	0.76	0.77
tbIVehicleEF	SBUS	5.35	4.91
tbIVehicleEF	SBUS	33.50	31.36
tbIVehicleEF	SBUS	616.28	604.73
tbIVehicleEF	SBUS	1,155.83	1,130.57
tbIVehicleEF	SBUS	130.96	127.39
tbIVehicleEF	SBUS	5.4700e-004	5.4300e-004
tbIVehicleEF	SBUS	8.46	8.35
tbIVehicleEF	SBUS	8.04	7.94
tbIVehicleEF	SBUS	2.38	2.27
tbIVehicleEF	SBUS	0.02	0.02
tbIVehicleEF	SBUS	0.58	0.58
tbIVehicleEF	SBUS	0.01	0.01
tbIVehicleEF	SBUS	0.09	0.09
tbIVehicleEF	SBUS	7.8690e-003	7.0020e-003
tbIVehicleEF	SBUS	0.02	0.02
tbIVehicleEF	SBUS	0.25	0.25
tbIVehicleEF	SBUS	2.7730e-003	2.7720e-003
tbIVehicleEF	SBUS	0.08	0.08
tbIVehicleEF	SBUS	6.8680e-003	6.1480e-003
tbIVehicleEF	SBUS	0.06	0.06
tbIVehicleEF	SBUS	0.29	0.28
tbIVehicleEF	SBUS	0.11	0.11
tbIVehicleEF	SBUS	0.03	0.03
tbIVehicleEF	SBUS	0.47	0.45

tbIVehicleEF	SBUS	2.19	2.15
tbIVehicleEF	SBUS	2.25	2.09
tbIVehicleEF	SBUS	5.9690e-003	5.9790e-003
tbIVehicleEF	SBUS	0.01	0.01
tbIVehicleEF	SBUS	1.9240e-003	1.8760e-003
tbIVehicleEF	SBUS	0.06	0.06
tbIVehicleEF	SBUS	0.29	0.28
tbIVehicleEF	SBUS	0.12	0.13
tbIVehicleEF	SBUS	0.03	0.03
tbIVehicleEF	SBUS	0.52	0.50
tbIVehicleEF	SBUS	2.19	2.15
tbIVehicleEF	SBUS	2.41	2.24
tbIVehicleEF	SBUS	5.8270e-003	5.8680e-003
tbIVehicleEF	SBUS	7.6510e-003	8.0050e-003
tbIVehicleEF	SBUS	1.44	1.46
tbIVehicleEF	SBUS	5.36	4.90
tbIVehicleEF	SBUS	40.90	38.37
tbIVehicleEF	SBUS	533.99	523.99
tbIVehicleEF	SBUS	1,155.83	1,130.57
tbIVehicleEF	SBUS	130.96	127.39
tbIVehicleEF	SBUS	5.4700e-004	5.4300e-004
tbIVehicleEF	SBUS	7.83	7.73
tbIVehicleEF	SBUS	8.40	8.29
tbIVehicleEF	SBUS	2.55	2.43
tbIVehicleEF	SBUS	0.03	0.03
tbIVehicleEF	SBUS	0.58	0.58
tbIVehicleEF	SBUS	0.01	0.01
tbIVehicleEF	SBUS	0.09	0.09
tbIVehicleEF	SBUS	7.8690e-003	7.0020e-003
tbIVehicleEF	SBUS	0.03	0.03

tbIVehicleEF	SBUS	0.25	0.25
tbIVehicleEF	SBUS	2.7730e-003	2.7720e-003
tbIVehicleEF	SBUS	0.08	0.08
tbIVehicleEF	SBUS	6.8680e-003	6.1480e-003
tbIVehicleEF	SBUS	0.05	0.05
tbIVehicleEF	SBUS	0.37	0.34
tbIVehicleEF	SBUS	0.13	0.13
tbIVehicleEF	SBUS	0.02	0.02
tbIVehicleEF	SBUS	0.46	0.44
tbIVehicleEF	SBUS	2.81	2.75
tbIVehicleEF	SBUS	2.64	2.45
tbIVehicleEF	SBUS	5.1720e-003	5.1800e-003
tbIVehicleEF	SBUS	0.01	0.01
tbIVehicleEF	SBUS	2.0530e-003	1.9970e-003
tbIVehicleEF	SBUS	0.05	0.05
tbIVehicleEF	SBUS	0.37	0.34
tbIVehicleEF	SBUS	0.14	0.14
tbIVehicleEF	SBUS	0.02	0.02
tbIVehicleEF	SBUS	0.51	0.50
tbIVehicleEF	SBUS	2.81	2.75
tbIVehicleEF	SBUS	2.83	2.62
tbIVehicleEF	UBUS	5.41	5.02
tbIVehicleEF	UBUS	8.46	8.21
tbIVehicleEF	UBUS	2,287.55	2,216.14
tbIVehicleEF	UBUS	22.10	21.49
tbIVehicleEF	UBUS	3.1710e-003	3.1570e-003
tbIVehicleEF	UBUS	14.75	13.87
tbIVehicleEF	UBUS	0.90	0.89
tbIVehicleEF	UBUS	0.24	0.22
tbIVehicleEF	UBUS	7.7800e-004	7.0200e-004

tbIVehicleEF	UBUS	0.22	0.21
tbIVehicleEF	UBUS	6.8900e-004	6.3000e-004
tbIVehicleEF	UBUS	4.5680e-003	4.5000e-003
tbIVehicleEF	UBUS	0.09	0.08
tbIVehicleEF	UBUS	2.5400e-003	2.5020e-003
tbIVehicleEF	UBUS	0.86	0.83
tbIVehicleEF	UBUS	0.61	0.64
tbIVehicleEF	UBUS	0.62	0.60
tbIVehicleEF	UBUS	0.02	0.02
tbIVehicleEF	UBUS	3.7600e-004	3.7000e-004
tbIVehicleEF	UBUS	4.5680e-003	4.5000e-003
tbIVehicleEF	UBUS	0.09	0.08
tbIVehicleEF	UBUS	2.5400e-003	2.5020e-003
tbIVehicleEF	UBUS	0.96	0.92
tbIVehicleEF	UBUS	0.61	0.64
tbIVehicleEF	UBUS	0.66	0.64
tbIVehicleEF	UBUS	5.43	5.05
tbIVehicleEF	UBUS	7.11	6.89
tbIVehicleEF	UBUS	2,287.55	2,216.14
tbIVehicleEF	UBUS	22.10	21.49
tbIVehicleEF	UBUS	3.1710e-003	3.1570e-003
tbIVehicleEF	UBUS	13.91	13.08
tbIVehicleEF	UBUS	0.86	0.85
tbIVehicleEF	UBUS	0.24	0.22
tbIVehicleEF	UBUS	7.7800e-004	7.0200e-004
tbIVehicleEF	UBUS	0.22	0.21
tbIVehicleEF	UBUS	6.8900e-004	6.3000e-004
tbIVehicleEF	UBUS	6.4920e-003	6.3740e-003
tbIVehicleEF	UBUS	0.09	0.08
tbIVehicleEF	UBUS	3.5460e-003	3.4570e-003

tbIVehicleEF	UBUS	0.87	0.84
tbIVehicleEF	UBUS	0.56	0.59
tbIVehicleEF	UBUS	0.55	0.53
tbIVehicleEF	UBUS	0.02	0.02
tbIVehicleEF	UBUS	3.5300e-004	3.4700e-004
tbIVehicleEF	UBUS	6.4920e-003	6.3740e-003
tbIVehicleEF	UBUS	0.09	0.08
tbIVehicleEF	UBUS	3.5460e-003	3.4570e-003
tbIVehicleEF	UBUS	0.97	0.93
tbIVehicleEF	UBUS	0.56	0.59
tbIVehicleEF	UBUS	0.59	0.57
tbIVehicleEF	UBUS	5.40	5.01
tbIVehicleEF	UBUS	8.69	8.44
tbIVehicleEF	UBUS	2,287.55	2,216.14
tbIVehicleEF	UBUS	22.10	21.49
tbIVehicleEF	UBUS	3.1710e-003	3.1570e-003
tbIVehicleEF	UBUS	14.47	13.60
tbIVehicleEF	UBUS	0.91	0.90
tbIVehicleEF	UBUS	0.24	0.22
tbIVehicleEF	UBUS	7.7800e-004	7.0200e-004
tbIVehicleEF	UBUS	0.22	0.21
tbIVehicleEF	UBUS	6.8900e-004	6.3000e-004
tbIVehicleEF	UBUS	5.3900e-003	5.2850e-003
tbIVehicleEF	UBUS	0.11	0.11
tbIVehicleEF	UBUS	2.7720e-003	2.7160e-003
tbIVehicleEF	UBUS	0.86	0.82
tbIVehicleEF	UBUS	0.71	0.74
tbIVehicleEF	UBUS	0.63	0.61
tbIVehicleEF	UBUS	0.02	0.02
tbIVehicleEF	UBUS	3.8000e-004	3.7400e-004

tbIVehicleEF	UBUS	5.3900e-003	5.2850e-003
tbIVehicleEF	UBUS	0.11	0.11
tbIVehicleEF	UBUS	2.7720e-003	2.7160e-003
tbIVehicleEF	UBUS	0.96	0.92
tbIVehicleEF	UBUS	0.71	0.74
tbIVehicleEF	UBUS	0.68	0.65
tbIVehicleTrips	CC_TL	8.40	13.30
tbIVehicleTrips	CC_TL	8.40	13.30
tbIVehicleTrips	CC_TL	8.40	13.30
tbIVehicleTrips	CC_TL	8.40	13.30
tbIVehicleTrips	CC_TL	8.40	13.30
tbIVehicleTrips	CC_TTP	0.00	64.40
tbIVehicleTrips	CNW_TL	6.90	7.40
tbIVehicleTrips	CNW_TL	6.90	7.40
tbIVehicleTrips	CNW_TL	6.90	7.40
tbIVehicleTrips	CNW_TL	6.90	7.40
tbIVehicleTrips	CNW_TL	6.90	7.40
tbIVehicleTrips	CNW_TTP	0.00	19.00
tbIVehicleTrips	CW_TL	16.60	8.90
tbIVehicleTrips	CW_TL	16.60	8.90
tbIVehicleTrips	CW_TL	16.60	8.90
tbIVehicleTrips	CW_TL	16.60	8.90
tbIVehicleTrips	CW_TL	16.60	8.90
tbIVehicleTrips	CW_TTP	0.00	16.60
tbIVehicleTrips	DV_TP	0.00	40.00
tbIVehicleTrips	HO_TL	8.70	9.50
tbIVehicleTrips	HS_TL	5.90	7.00
tbIVehicleTrips	HW_TL	14.70	12.70
tbIVehicleTrips	PB_TP	0.00	15.00
tbIVehicleTrips	PR_TP	0.00	45.00

tblVehicleTrips	ST_TR	0.00	27.49
tblVehicleTrips	SU_TR	0.00	27.49
tblVehicleTrips	WD_TR	6.59	6.65
tblVehicleTrips	WD_TR	11.01	12.40
tblVehicleTrips	WD_TR	0.00	27.49
tblWater	IndoorWaterUseRate	0.00	3,341,411.44
tblWater	OutdoorWaterUseRate	3,121,727.66	0.00
tblWater	OutdoorWaterUseRate	14,934,794.84	0.00
tblWater	OutdoorWaterUseRate	158,870.84	0.00

## 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	1.9794	23.9442	16.1475	0.0276	1.2019	0.9894	2.1913	0.5100	0.9118	1.4217	0.0000	2,605.3271	2,605.3271	0.3842	0.0000	2,613.3950
2014	0.9900	7.7255	7.8949	0.0124	0.4373	0.3940	0.8313	0.1179	0.3687	0.4866	0.0000	1,105.7300	1,105.7300	0.1441	0.0000	1,108.7566
2015	2.0980	3.3886	3.4847	5.7900e-003	0.2047	0.1828	0.3874	0.0551	0.1712	0.2263	0.0000	504.7292	504.7292	0.0669	0.0000	506.1329
<b>Total</b>	<b>5.0674</b>	<b>35.0583</b>	<b>27.5271</b>	<b>0.0458</b>	<b>1.8438</b>	<b>1.5662</b>	<b>3.4100</b>	<b>0.6830</b>	<b>1.4516</b>	<b>2.1346</b>	<b>0.0000</b>	<b>4,215.7863</b>	<b>4,215.7863</b>	<b>0.5952</b>	<b>0.0000</b>	<b>4,228.2846</b>

#### 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
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Year	tons/yr										MT/yr					
2013	0.9328	14.1208	13.9693	0.0276	0.7108	0.4912	1.2020	0.2649	0.4739	0.7388	0.0000	2,605.3257	2,605.3257	0.3842	0.0000	2,613.3936
2014	0.4733	4.3984	7.8412	0.0124	0.4373	0.1748	0.6121	0.1179	0.1719	0.2898	0.0000	1,105.7295	1,105.7295	0.1441	0.0000	1,108.7561
2015	1.8577	1.9031	3.4600	5.7900e-003	0.2047	0.0816	0.2863	0.0551	0.0806	0.1357	0.0000	504.7289	504.7289	0.0669	0.0000	506.1327
<b>Total</b>	<b>3.2639</b>	<b>20.4223</b>	<b>25.2705</b>	<b>0.0458</b>	<b>1.3528</b>	<b>0.7476</b>	<b>2.1003</b>	<b>0.4379</b>	<b>0.7264</b>	<b>1.1644</b>	<b>0.0000</b>	<b>4,215.7840</b>	<b>4,215.7840</b>	<b>0.5952</b>	<b>0.0000</b>	<b>4,228.2823</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>35.59</b>	<b>41.75</b>	<b>8.20</b>	<b>0.00</b>	<b>26.63</b>	<b>52.27</b>	<b>38.41</b>	<b>35.88</b>	<b>49.96</b>	<b>45.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## 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	3.2522	0.0160	1.2957	8.0000e-004		0.0769	0.0769		0.0769	0.0769	8.0727	16.8215	24.8941	0.0255	5.5000e-004	25.6000
Energy	0.0375	0.3391	0.2704	2.0500e-003		0.0259	0.0259		0.0259	0.0259	0.0000	3,742.2422	3,742.2422	0.0867	0.0233	3,751.2809
Mobile	3.3129	8.9412	35.6287	0.0750	4.9635	0.1194	5.0829	1.3293	0.1098	1.4391	0.0000	5,998.3709	5,998.3709	0.2611	0.0000	6,003.8537
Waste						0.0000	0.0000		0.0000	0.0000	53.7277	0.0000	53.7277	3.1752	0.0000	120.4071
Water						0.0000	0.0000		0.0000	0.0000	12.2114	291.8153	304.0267	1.2611	0.0310	340.1328
<b>Total</b>	<b>6.6027</b>	<b>9.2963</b>	<b>37.1948</b>	<b>0.0778</b>	<b>4.9635</b>	<b>0.2223</b>	<b>5.1858</b>	<b>1.3293</b>	<b>0.2126</b>	<b>1.5419</b>	<b>74.0117</b>	<b>10,049.2498</b>	<b>10,123.2615</b>	<b>4.8097</b>	<b>0.0549</b>	<b>10,241.2745</b>

## 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	2.5900	9.6700e-003	0.8182	4.0000e-005		5.4700e-003	5.4700e-003		5.4500e-003	5.4500e-003	0.0000	17.7340	17.7340	1.7600e-003	3.0000e-004	17.8644
Energy	0.0300	0.2712	0.2163	1.6400e-003		0.0208	0.0208		0.0208	0.0208	0.0000	2,993.7938	2,993.7938	0.0694	0.0186	3,001.0247
Mobile	2.9152	6.0169	26.0164	0.0466	3.0214	0.0758	3.0972	0.8092	0.0697	0.8788	0.0000	3,726.4566	3,726.4566	0.1694	0.0000	3,730.0141
Waste						0.0000	0.0000		0.0000	0.0000	42.9821	0.0000	42.9821	2.5402	0.0000	96.3257
Water						0.0000	0.0000		0.0000	0.0000	9.7691	221.8997	231.6687	1.0086	0.0248	260.5304
<b>Total</b>	<b>5.5352</b>	<b>6.2978</b>	<b>27.0510</b>	<b>0.0483</b>	<b>3.0214</b>	<b>0.1020</b>	<b>3.1234</b>	<b>0.8092</b>	<b>0.0959</b>	<b>0.9050</b>	<b>52.7512</b>	<b>6,959.8840</b>	<b>7,012.6352</b>	<b>3.7893</b>	<b>0.0437</b>	<b>7,105.7592</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>16.17</b>	<b>32.25</b>	<b>27.27</b>	<b>37.94</b>	<b>39.13</b>	<b>54.10</b>	<b>39.77</b>	<b>39.13</b>	<b>54.91</b>	<b>41.31</b>	<b>28.73</b>	<b>30.74</b>	<b>30.73</b>	<b>21.21</b>	<b>20.34</b>	<b>30.62</b>

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2013	1/31/2013	5	22	
2	Site Preparation	Site Preparation	2/1/2013	2/28/2013	5	20	
3	Grading & Excavation	Grading	3/1/2013	10/31/2013	5	175	
4	Building Construction	Building Construction	11/1/2013	5/29/2015	5	411	
5	Architectural Coating	Architectural Coating	5/30/2015	9/30/2015	5	88	
6	Paving	Paving	10/1/2015	10/30/2015	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 153,900; Residential Outdoor: 51,300; Non-Residential Indoor: 882,465; Non-Residential Outdoor: 294,155

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	358	0.59
Demolition	Excavators	0	8.00	162	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	358	0.59
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	75	0.55
Grading & Excavation	Excavators	2	8.00	157	0.57
Grading & Excavation	Graders	1	8.00	162	0.61
Demolition	Tractors/Loaders/Backhoes	3	8.00	75	0.55
Grading & Excavation	Rubber Tired Dozers	1	8.00	358	0.59
Grading & Excavation	Tractors/Loaders/Backhoes	3	8.00	75	0.55
Building Construction	Cranes	1	7.00	208	0.43
Building Construction	Forklifts	3	8.00	149	0.30
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	75	0.55
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	89	0.62
Paving	Paving Equipment	2	6.00	82	0.53
Paving	Rollers	2	6.00	84	0.56
Paving	Tractors/Loaders/Backhoes	1	8.00	75	0.55
Grading & Excavation	Other Construction Equipment	4	8.00	327	0.62

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	381.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading & Excavation	11	28.00	0.00	34,500.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	281.00	105.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	56.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	12.70	7.40	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

### 3.2 Demolition - 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					0.0413	0.0000	0.0413	6.2500e-003	0.0000	6.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0837	0.8873	0.6614	5.9000e-004		0.0484	0.0484		0.0449	0.0449	0.0000	56.6358	56.6358	0.0157	0.0000	56.9650
<b>Total</b>	<b>0.0837</b>	<b>0.8873</b>	<b>0.6614</b>	<b>5.9000e-004</b>	<b>0.0413</b>	<b>0.0484</b>	<b>0.0897</b>	<b>6.2500e-003</b>	<b>0.0449</b>	<b>0.0512</b>	<b>0.0000</b>	<b>56.6358</b>	<b>56.6358</b>	<b>0.0157</b>	<b>0.0000</b>	<b>56.9650</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8400e-003	0.0823	0.0572	1.4000e-004	3.2600e-003	2.2500e-003	5.5100e-003	8.9000e-004	2.0700e-003	2.9700e-003	0.0000	13.3428	13.3428	1.6000e-004	0.0000	13.3461
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	1.2600e-003	0.0131	2.0000e-005	1.5600e-003	2.0000e-005	1.5800e-003	4.1000e-004	2.0000e-005	4.3000e-004	0.0000	1.6725	1.6725	1.1000e-004	0.0000	1.6749
<b>Total</b>	<b>6.7800e-003</b>	<b>0.0835</b>	<b>0.0703</b>	<b>1.6000e-004</b>	<b>4.8200e-003</b>	<b>2.2700e-003</b>	<b>7.0900e-003</b>	<b>1.3000e-003</b>	<b>2.0900e-003</b>	<b>3.4000e-003</b>	<b>0.0000</b>	<b>15.0153</b>	<b>15.0153</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>15.0210</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0161	0.0000	0.0161	2.4400e-003	0.0000	2.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.2874	0.3444	5.9000e-004		0.0140	0.0140		0.0140	0.0140	0.0000	56.6358	56.6358	0.0157	0.0000	56.9649
<b>Total</b>	<b>0.0141</b>	<b>0.2874</b>	<b>0.3444</b>	<b>5.9000e-004</b>	<b>0.0161</b>	<b>0.0140</b>	<b>0.0301</b>	<b>2.4400e-003</b>	<b>0.0140</b>	<b>0.0165</b>	<b>0.0000</b>	<b>56.6358</b>	<b>56.6358</b>	<b>0.0157</b>	<b>0.0000</b>	<b>56.9649</b>

**Mitigated Construction Off-Site**

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

Hauling	5.8400e-003	0.0823	0.0572	1.4000e-004	3.2600e-003	2.2500e-003	5.5100e-003	8.9000e-004	2.0700e-003	2.9700e-003	0.0000	13.3428	13.3428	1.6000e-004	0.0000	13.3461
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	1.2600e-003	0.0131	2.0000e-005	1.5600e-003	2.0000e-005	1.5800e-003	4.1000e-004	2.0000e-005	4.3000e-004	0.0000	1.6725	1.6725	1.1000e-004	0.0000	1.6749
<b>Total</b>	<b>6.7800e-003</b>	<b>0.0835</b>	<b>0.0703</b>	<b>1.6000e-004</b>	<b>4.8200e-003</b>	<b>2.2700e-003</b>	<b>7.0900e-003</b>	<b>1.3000e-003</b>	<b>2.0900e-003</b>	<b>3.4000e-003</b>	<b>0.0000</b>	<b>15.0153</b>	<b>15.0153</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>15.0210</b>

### 3.3 Site Preparation - 2013

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0992	1.1029	0.8299	7.0000e-004		0.0572	0.0572		0.0526	0.0526	0.0000	67.4277	67.4277	0.0198	0.0000	67.8440
<b>Total</b>	<b>0.0992</b>	<b>1.1029</b>	<b>0.8299</b>	<b>7.0000e-004</b>	<b>0.1807</b>	<b>0.0572</b>	<b>0.2379</b>	<b>0.0993</b>	<b>0.0526</b>	<b>0.1519</b>	<b>0.0000</b>	<b>67.4277</b>	<b>67.4277</b>	<b>0.0198</b>	<b>0.0000</b>	<b>67.8440</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	1.3700e-003	0.0143	2.0000e-005	1.7000e-003	2.0000e-005	1.7200e-003	4.5000e-004	2.0000e-005	4.7000e-004	0.0000	1.8246	1.8246	1.2000e-004	0.0000	1.8272

<b>Total</b>	<b>1.0200e-003</b>	<b>1.3700e-003</b>	<b>0.0143</b>	<b>2.0000e-005</b>	<b>1.7000e-003</b>	<b>2.0000e-005</b>	<b>1.7200e-003</b>	<b>4.5000e-004</b>	<b>2.0000e-005</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.8246</b>	<b>1.8246</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.8272</b>
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**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					0.0705	0.0000	0.0705	0.0387	0.0000	0.0387	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.3390	0.3983	7.0000e-004		0.0154	0.0154		0.0154	0.0154	0.0000	67.4276	67.4276	0.0198	0.0000	67.8439
<b>Total</b>	<b>0.0169</b>	<b>0.3390</b>	<b>0.3983</b>	<b>7.0000e-004</b>	<b>0.0705</b>	<b>0.0154</b>	<b>0.0859</b>	<b>0.0387</b>	<b>0.0154</b>	<b>0.0542</b>	<b>0.0000</b>	<b>67.4276</b>	<b>67.4276</b>	<b>0.0198</b>	<b>0.0000</b>	<b>67.8439</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	1.3700e-003	0.0143	2.0000e-005	1.7000e-003	2.0000e-005	1.7200e-003	4.5000e-004	2.0000e-005	4.7000e-004	0.0000	1.8246	1.8246	1.2000e-004	0.0000	1.8272
<b>Total</b>	<b>1.0200e-003</b>	<b>1.3700e-003</b>	<b>0.0143</b>	<b>2.0000e-005</b>	<b>1.7000e-003</b>	<b>2.0000e-005</b>	<b>1.7200e-003</b>	<b>4.5000e-004</b>	<b>2.0000e-005</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.8246</b>	<b>1.8246</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.8272</b>

**3.4 Grading & Excavation - 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					0.5831	0.0000	0.5831	0.2961	0.0000	0.2961	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0654	13.0304	7.8061	0.0108		0.6051	0.6051		0.5567	0.5567	0.0000	1,047.1698	1,047.1698	0.3079	0.0000	1,053.6354
<b>Total</b>	<b>1.0654</b>	<b>13.0304</b>	<b>7.8061</b>	<b>0.0108</b>	<b>0.5831</b>	<b>0.6051</b>	<b>1.1882</b>	<b>0.2961</b>	<b>0.5567</b>	<b>0.8528</b>	<b>0.0000</b>	<b>1,047.1698</b>	<b>1,047.1698</b>	<b>0.3079</b>	<b>0.0000</b>	<b>1,053.6354</b>

### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.5288	7.4494	5.1749	0.0129	0.2951	0.2040	0.4991	0.0809	0.1876	0.2686	0.0000	1,208.2024	1,208.2024	0.0142	0.0000	1,208.5015
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0139	0.0187	0.1950	3.0000e-004	0.0232	2.8000e-004	0.0235	6.1600e-003	2.6000e-004	6.4200e-003	0.0000	24.8346	24.8346	1.6700e-003	0.0000	24.8697
<b>Total</b>	<b>0.5427</b>	<b>7.4681</b>	<b>5.3699</b>	<b>0.0132</b>	<b>0.3183</b>	<b>0.2043</b>	<b>0.5226</b>	<b>0.0871</b>	<b>0.1879</b>	<b>0.2750</b>	<b>0.0000</b>	<b>1,233.0370</b>	<b>1,233.0370</b>	<b>0.0159</b>	<b>0.0000</b>	<b>1,233.3712</b>

### Mitigated Construction On-Site

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



Fugitive Dust					0.2274	0.0000	0.2274	0.1155	0.0000	0.1155	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2637	5.1776	6.3942	0.0108		0.2235	0.2235		0.2235	0.2235	0.0000	1,047.1685	1,047.1685	0.3079	0.0000	1,053.6342
<b>Total</b>	<b>0.2637</b>	<b>5.1776</b>	<b>6.3942</b>	<b>0.0108</b>	<b>0.2274</b>	<b>0.2235</b>	<b>0.4509</b>	<b>0.1155</b>	<b>0.2235</b>	<b>0.3390</b>	<b>0.0000</b>	<b>1,047.1685</b>	<b>1,047.1685</b>	<b>0.3079</b>	<b>0.0000</b>	<b>1,053.6342</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.5288	7.4494	5.1749	0.0129	0.2951	0.2040	0.4991	0.0809	0.1876	0.2686	0.0000	1,208.2024	1,208.2024	0.0142	0.0000	1,208.5015
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0139	0.0187	0.1950	3.0000e-004	0.0232	2.8000e-004	0.0235	6.1600e-003	2.6000e-004	6.4200e-003	0.0000	24.8346	24.8346	1.6700e-003	0.0000	24.8697
<b>Total</b>	<b>0.5427</b>	<b>7.4681</b>	<b>5.3699</b>	<b>0.0132</b>	<b>0.3183</b>	<b>0.2043</b>	<b>0.5226</b>	<b>0.0871</b>	<b>0.1879</b>	<b>0.2750</b>	<b>0.0000</b>	<b>1,233.0370</b>	<b>1,233.0370</b>	<b>0.0159</b>	<b>0.0000</b>	<b>1,233.3712</b>

**3.5 Building Construction - 2013**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1126	1.0070	0.5543	7.9000e-004		0.0635	0.0635		0.0595	0.0595	0.0000	73.7829	73.7829	0.0198	0.0000	74.1986
<b>Total</b>	<b>0.1126</b>	<b>1.0070</b>	<b>0.5543</b>	<b>7.9000e-004</b>		<b>0.0635</b>	<b>0.0635</b>		<b>0.0595</b>	<b>0.0595</b>	<b>0.0000</b>	<b>73.7829</b>	<b>73.7829</b>	<b>0.0198</b>	<b>0.0000</b>	<b>74.1986</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0336	0.3175	0.3604	5.3000e-004	0.0148	8.0700e-003	0.0229	4.2300e-003	7.4200e-003	0.0117	0.0000	49.1941	49.1941	5.7000e-004	0.0000	49.2060
Worker	0.0344	0.0461	0.4809	7.3000e-004	0.0572	6.9000e-004	0.0579	0.0152	6.3000e-004	0.0158	0.0000	61.2401	61.2401	4.1300e-003	0.0000	61.3267
<b>Total</b>	<b>0.0680</b>	<b>0.3636</b>	<b>0.8413</b>	<b>1.2600e-003</b>	<b>0.0720</b>	<b>8.7600e-003</b>	<b>0.0808</b>	<b>0.0194</b>	<b>8.0500e-003</b>	<b>0.0275</b>	<b>0.0000</b>	<b>110.4341</b>	<b>110.4341</b>	<b>4.7000e-003</b>	<b>0.0000</b>	<b>110.5327</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0197	0.4003	0.5366	7.9000e-004		0.0229	0.0229		0.0229	0.0229	0.0000	73.7828	73.7828	0.0198	0.0000	74.1985
<b>Total</b>	<b>0.0197</b>	<b>0.4003</b>	<b>0.5366</b>	<b>7.9000e-004</b>		<b>0.0229</b>	<b>0.0229</b>		<b>0.0229</b>	<b>0.0229</b>	<b>0.0000</b>	<b>73.7828</b>	<b>73.7828</b>	<b>0.0198</b>	<b>0.0000</b>	<b>74.1985</b>

**Mitigated Construction Off-Site**



Vendor	0.1672	1.7175	1.9574	3.2100e-003	0.0901	0.0319	0.1219	0.0257	0.0293	0.0550	0.0000	297.4932	297.4932	2.7000e-003	0.0000	297.5500
Worker	0.1866	0.2514	2.6267	4.4300e-003	0.3472	3.8400e-003	0.3511	0.0922	3.5000e-003	0.0957	0.0000	362.3971	362.3971	0.0229	0.0000	362.8780
<b>Total</b>	<b>0.3538</b>	<b>1.9690</b>	<b>4.5841</b>	<b>7.6400e-003</b>	<b>0.4373</b>	<b>0.0357</b>	<b>0.4730</b>	<b>0.1179</b>	<b>0.0328</b>	<b>0.1507</b>	<b>0.0000</b>	<b>659.8903</b>	<b>659.8903</b>	<b>0.0256</b>	<b>0.0000</b>	<b>660.4279</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1195	2.4294	3.2571	4.8000e-003		0.1391	0.1391		0.1391	0.1391	0.0000	445.8392	445.8392	0.1185	0.0000	448.3281
<b>Total</b>	<b>0.1195</b>	<b>2.4294</b>	<b>3.2571</b>	<b>4.8000e-003</b>		<b>0.1391</b>	<b>0.1391</b>		<b>0.1391</b>	<b>0.1391</b>	<b>0.0000</b>	<b>445.8392</b>	<b>445.8392</b>	<b>0.1185</b>	<b>0.0000</b>	<b>448.3281</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1672	1.7175	1.9574	3.2100e-003	0.0901	0.0319	0.1219	0.0257	0.0293	0.0550	0.0000	297.4932	297.4932	2.7000e-003	0.0000	297.5500
Worker	0.1866	0.2514	2.6267	4.4300e-003	0.3472	3.8400e-003	0.3511	0.0922	3.5000e-003	0.0957	0.0000	362.3971	362.3971	0.0229	0.0000	362.8780
<b>Total</b>	<b>0.3538</b>	<b>1.9690</b>	<b>4.5841</b>	<b>7.6400e-003</b>	<b>0.4373</b>	<b>0.0357</b>	<b>0.4730</b>	<b>0.1179</b>	<b>0.0328</b>	<b>0.1507</b>	<b>0.0000</b>	<b>659.8903</b>	<b>659.8903</b>	<b>0.0256</b>	<b>0.0000</b>	<b>660.4279</b>

### 3.5 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	0.2488	2.2726	1.3467	1.9700e-003		0.1402	0.1402		0.1313	0.1313	0.0000	181.3005	181.3005	0.0479	0.0000	182.3066
<b>Total</b>	<b>0.2488</b>	<b>2.2726</b>	<b>1.3467</b>	<b>1.9700e-003</b>		<b>0.1402</b>	<b>0.1402</b>		<b>0.1313</b>	<b>0.1313</b>	<b>0.0000</b>	<b>181.3005</b>	<b>181.3005</b>	<b>0.0479</b>	<b>0.0000</b>	<b>182.3066</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0590	0.6146	0.7324	1.3100e-003	0.0369	0.0100	0.0469	0.0105	9.2000e-003	0.0197	0.0000	120.6080	120.6080	9.7000e-004	0.0000	120.6284
Worker	0.0688	0.0929	0.9716	1.8200e-003	0.1423	1.4700e-003	0.1438	0.0378	1.3500e-003	0.0392	0.0000	144.1302	144.1302	8.6200e-003	0.0000	144.3113
<b>Total</b>	<b>0.1278</b>	<b>0.7075</b>	<b>1.7040</b>	<b>3.1300e-003</b>	<b>0.1793</b>	<b>0.0115</b>	<b>0.1907</b>	<b>0.0483</b>	<b>0.0106</b>	<b>0.0589</b>	<b>0.0000</b>	<b>264.7382</b>	<b>264.7382</b>	<b>9.5900e-003</b>	<b>0.0000</b>	<b>264.9397</b>

#### Mitigated Construction On-Site



Off-Road	0.0179	0.1131	0.0837	1.3000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	11.2343	11.2343	1.4600e-003	0.0000	11.2650
<b>Total</b>	<b>1.6785</b>	<b>0.1131</b>	<b>0.0837</b>	<b>1.3000e-004</b>		<b>9.7200e-003</b>	<b>9.7200e-003</b>		<b>9.7200e-003</b>	<b>9.7200e-003</b>	<b>0.0000</b>	<b>11.2343</b>	<b>11.2343</b>	<b>1.4600e-003</b>	<b>0.0000</b>	<b>11.2650</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0113	0.0152	0.1592	3.0000e-004	0.0233	2.4000e-004	0.0236	6.2000e-003	2.2000e-004	6.4200e-003	0.0000	23.6230	23.6230	1.4100e-003	0.0000	23.6527
<b>Total</b>	<b>0.0113</b>	<b>0.0152</b>	<b>0.1592</b>	<b>3.0000e-004</b>	<b>0.0233</b>	<b>2.4000e-004</b>	<b>0.0236</b>	<b>6.2000e-003</b>	<b>2.2000e-004</b>	<b>6.4200e-003</b>	<b>0.0000</b>	<b>23.6230</b>	<b>23.6230</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>23.6527</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6606					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0597	0.0806	1.3000e-004		4.1800e-003	4.1800e-003		4.1800e-003	4.1800e-003	0.0000	11.2343	11.2343	1.4600e-003	0.0000	11.2650
<b>Total</b>	<b>1.6632</b>	<b>0.0597</b>	<b>0.0806</b>	<b>1.3000e-004</b>		<b>4.1800e-003</b>	<b>4.1800e-003</b>		<b>4.1800e-003</b>	<b>4.1800e-003</b>	<b>0.0000</b>	<b>11.2343</b>	<b>11.2343</b>	<b>1.4600e-003</b>	<b>0.0000</b>	<b>11.2650</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0113	0.0152	0.1592	3.0000e-004	0.0233	2.4000e-004	0.0236	6.2000e-003	2.2000e-004	6.4200e-003	0.0000	23.6230	23.6230	1.4100e-003	0.0000	23.6527
<b>Total</b>	<b>0.0113</b>	<b>0.0152</b>	<b>0.1592</b>	<b>3.0000e-004</b>	<b>0.0233</b>	<b>2.4000e-004</b>	<b>0.0236</b>	<b>6.2000e-003</b>	<b>2.2000e-004</b>	<b>6.4200e-003</b>	<b>0.0000</b>	<b>23.6230</b>	<b>23.6230</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>23.6527</b>

**3.7 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	0.0305	0.2788	0.1769	2.3000e-004		0.0211	0.0211		0.0195	0.0195	0.0000	21.7239	21.7239	6.3400e-003	0.0000	21.8570
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0305</b>	<b>0.2788</b>	<b>0.1769</b>	<b>2.3000e-004</b>		<b>0.0211</b>	<b>0.0211</b>		<b>0.0195</b>	<b>0.0195</b>	<b>0.0000</b>	<b>21.7239</b>	<b>21.7239</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>21.8570</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	1.3600e-003	0.0142	3.0000e-005	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	2.1092	2.1092	1.3000e-004	0.0000	2.1119
<b>Total</b>	<b>1.0100e-003</b>	<b>1.3600e-003</b>	<b>0.0142</b>	<b>3.0000e-005</b>	<b>2.0800e-003</b>	<b>2.0000e-005</b>	<b>2.1000e-003</b>	<b>5.5000e-004</b>	<b>2.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>2.1092</b>	<b>2.1092</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.1119</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4100e-003	0.1234	0.1667	2.3000e-004		8.6500e-003	8.6500e-003		8.6500e-003	8.6500e-003	0.0000	21.7239	21.7239	6.3400e-003	0.0000	21.8570
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.4100e-003</b>	<b>0.1234</b>	<b>0.1667</b>	<b>2.3000e-004</b>		<b>8.6500e-003</b>	<b>8.6500e-003</b>		<b>8.6500e-003</b>	<b>8.6500e-003</b>	<b>0.0000</b>	<b>21.7239</b>	<b>21.7239</b>	<b>6.3400e-003</b>	<b>0.0000</b>	<b>21.8570</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	1.0100e-003	1.3600e-003	0.0142	3.0000e-005	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	2.1092	2.1092	1.3000e-004	0.0000	2.1119
<b>Total</b>	<b>1.0100e-003</b>	<b>1.3600e-003</b>	<b>0.0142</b>	<b>3.0000e-005</b>	<b>2.0800e-003</b>	<b>2.0000e-005</b>	<b>2.1000e-003</b>	<b>5.5000e-004</b>	<b>2.0000e-005</b>	<b>5.7000e-004</b>	<b>0.0000</b>	<b>2.1092</b>	<b>2.1092</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>2.1119</b>

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

- Implement Trip Reduction Program
- Market Commute Trip Reduction Option
- Employee Vanpool/Shuttle
- Provide Ride Sharing Program
- Increase Density
- Increase Diversity
- Improve Destination Accessibility
- Increase Transit Accessibility
- Improve Pedestrian Network
- Limit Parking Supply
- Unbundle Parking Cost

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9152	6.0169	26.0164	0.0466	3.0214	0.0758	3.0972	0.8092	0.0697	0.8788	0.0000	3,726.4566	3,726.4566	0.1694	0.0000	3,730.0141
Unmitigated	3.3129	8.9412	35.6287	0.0750	4.9635	0.1194	5.0829	1.3293	0.1098	1.4391	0.0000	5,998.3709	5,998.3709	0.2611	0.0000	6,003.8537

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	505.40	544.16	461.32	1,680,741	1,050,856
General Office Building	1,700.04	324.93	134.36	4,087,431	2,479,252
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	737.59	773.75	591.71	1,312,751	795,612
Strip Mall	1,999.28	1,896.42	921.60	4,205,813	2,549,347
User Defined Commercial	450.84	450.84	450.84	1,035,782	627,838
User Defined Commercial	338.13	338.13	338.13	776,837	470,878
<b>Total</b>	<b>5,731.27</b>	<b>4,328.23</b>	<b>2,897.95</b>	<b>13,099,355</b>	<b>7,973,782</b>

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.70	7.00	9.50	40.20	19.20	40.60	86	11	3
General Office Building	8.90	13.30	7.40	33.00	48.00	19.00	77	19	4
Enclosed Parking with Elevator	8.90	13.30	7.40	0.00	0.00	0.00	0	0	0
Quality Restaurant	8.90	13.30	7.40	12.00	69.00	19.00	38	18	44
Strip Mall	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15
User Defined Commercial	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15
User Defined Commercial	8.90	13.30	7.40	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.533598	0.058434	0.178244	0.125508	0.038944	0.006283	0.016425	0.031066	0.002453	0.003157	0.003691	0.000543	0.001655

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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 Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,370.7357	3,370.7357	0.0796	0.0165	3,377.5135
NaturalGas Mitigated	0.0300	0.2712	0.2163	1.6400e-003		0.0208	0.0208		0.0208	0.0208	0.0000	297.2052	297.2052	5.7000e-003	5.4500e-003	299.0139
NaturalGas Unmitigated	0.0375	0.3391	0.2704	2.0500e-003		0.0259	0.0259		0.0259	0.0259	0.0000	371.5064	371.5064	7.1200e-003	6.8100e-003	373.7674
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,696.5886	2,696.5886	0.0637	0.0132	2,702.0108

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.4985e+06	8.0800e-003	0.0735	0.0617	4.4000e-004		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003	0.0000	79.9658	79.9658	1.5300e-003	1.4700e-003	80.4525
Quality Restaurant	4.58379e+006	0.0247	0.2247	0.1887	1.3500e-003		0.0171	0.0171		0.0171	0.0171	0.0000	244.6086	244.6086	4.6900e-003	4.4800e-003	246.0972
Strip Mall	76687	4.1000e-004	3.7600e-003	3.1600e-003	2.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	4.0923	4.0923	8.0000e-005	8.0000e-005	4.1172
User Defined Commercial	20910	1.1000e-004	1.0200e-003	8.6000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1158	1.1158	2.0000e-005	2.0000e-005	1.1226
User Defined Commercial	27880	1.5000e-004	1.3700e-003	1.1500e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4878	1.4878	3.0000e-005	3.0000e-005	1.4968
Apartments High Rise	753996	4.0700e-003	0.0347	0.0148	2.2000e-004		2.8100e-003	2.8100e-003		2.8100e-003	2.8100e-003	0.0000	40.2361	40.2361	7.7000e-004	7.4000e-004	40.4810
<b>Total</b>		<b>0.0375</b>	<b>0.3391</b>	<b>0.2704</b>	<b>2.0500e-003</b>		<b>0.0259</b>	<b>0.0259</b>		<b>0.0259</b>	<b>0.0259</b>	<b>0.0000</b>	<b>371.5065</b>	<b>371.5065</b>	<b>7.1200e-003</b>	<b>6.8200e-003</b>	<b>373.7674</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.1988e+06	6.4600e-003	0.0588	0.0494	3.5000e-004		4.4700e-003	4.4700e-003		4.4700e-003	4.4700e-003	0.0000	63.9727	63.9727	1.2300e-003	1.1700e-003	64.3620
Quality Restaurant	3.66703e+006	0.0198	0.1798	0.1510	1.0800e-003		0.0137	0.0137		0.0137	0.0137	0.0000	195.6869	195.6869	3.7500e-003	3.5900e-003	196.8778
Strip Mall	61349.6	3.3000e-004	3.0100e-003	2.5300e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.2739	3.2739	6.0000e-005	6.0000e-005	3.2938
User Defined Commercial	16728	9.0000e-005	8.2000e-004	6.9000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8927	0.8927	2.0000e-005	2.0000e-005	0.8981
User Defined Commercial	22304	1.2000e-004	1.0900e-003	9.2000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1902	1.1902	2.0000e-005	2.0000e-005	1.1975
Apartments High Rise	603197	3.2500e-003	0.0278	0.0118	1.8000e-004		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	32.1889	32.1889	6.2000e-004	5.9000e-004	32.3848
<b>Total</b>		<b>0.0300</b>	<b>0.2712</b>	<b>0.2163</b>	<b>1.6400e-003</b>		<b>0.0208</b>	<b>0.0208</b>		<b>0.0208</b>	<b>0.0208</b>	<b>0.0000</b>	<b>297.2052</b>	<b>297.2052</b>	<b>5.7000e-003</b>	<b>5.4500e-003</b>	<b>299.0139</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	269225	149.9482	3.5400e-003	7.3000e-004	150.2497
Enclosed Parking with Elevator	2.48841e+006	1,385.9475	0.0327	6.7700e-003	1,388.7344
General Office Building	1.99206e+006	1,109.5025	0.0262	5.4200e-003	1,111.7334

Quality Restaurant	384662	214.2419	5.0600e-003	1.0500e-003	214.6727
Strip Mall	684319	381.1392	9.0000e-003	1.8600e-003	381.9056
User Defined Commercial	133332	74.2608	1.7500e-003	3.6000e-004	74.4101
User Defined Commercial	99999	55.6956	1.3200e-003	2.7000e-004	55.8076
<b>Total</b>		<b>3,370.7358</b>	<b>0.0796</b>	<b>0.0165</b>	<b>3,377.5135</b>

### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	215380	119.9586	2.8300e-003	5.9000e-004	120.1998
Enclosed Parking with Elevator	1.99073e+006	1,108.7580	0.0262	5.4200e-003	1,110.9875
General Office Building	1.59365e+006	887.6020	0.0210	4.3400e-003	889.3867
Quality Restaurant	307730	171.3936	4.0500e-003	8.4000e-004	171.7382
Strip Mall	547455	304.9114	7.2000e-003	1.4900e-003	305.5245
User Defined Commercial	106666	59.4086	1.4000e-003	2.9000e-004	59.5281
User Defined Commercial	79999.2	44.5565	1.0500e-003	2.2000e-004	44.6461
<b>Total</b>		<b>2,696.5886</b>	<b>0.0637</b>	<b>0.0132</b>	<b>2,702.0108</b>

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.5900	9.6700e-003	0.8182	4.0000e-005		5.4700e-003	5.4700e-003		5.4500e-003	5.4500e-003	0.0000	17.7340	17.7340	1.7600e-003	3.0000e-004	17.8644
Unmitigated	3.2522	0.0160	1.2957	8.0000e-004		0.0769	0.0769		0.0769	0.0769	8.0727	16.8215	24.8941	0.0255	5.5000e-004	25.6000

## 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	0.5751					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2489	6.3200e-003	0.4775	7.6000e-004		0.0726	0.0726		0.0726	0.0726	8.0727	15.5129	23.5855	0.0241	5.5000e-004	24.2609
Landscaping	0.0277	9.6700e-003	0.8182	4.0000e-005		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	1.3086	1.3086	1.4500e-003	0.0000	1.3391
<b>Total</b>	<b>3.2522</b>	<b>0.0160</b>	<b>1.2957</b>	<b>8.0000e-004</b>		<b>0.0769</b>	<b>0.0769</b>		<b>0.0769</b>	<b>0.0769</b>	<b>8.0727</b>	<b>16.8215</b>	<b>24.8941</b>	<b>0.0255</b>	<b>5.5000e-004</b>	<b>25.6000</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1601					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6600e-003	0.0000	9.0000e-005	0.0000		1.1500e-003	1.1500e-003		1.1300e-003	1.1300e-003	0.0000	16.4254	16.4254	3.1000e-004	3.0000e-004	16.5253
Landscaping	0.0277	9.6700e-003	0.8182	4.0000e-005		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	1.3086	1.3086	1.4500e-003	0.0000	1.3391
<b>Total</b>	<b>2.5900</b>	<b>9.6700e-003</b>	<b>0.8182</b>	<b>4.0000e-005</b>		<b>5.4700e-003</b>	<b>5.4700e-003</b>		<b>5.4500e-003</b>	<b>5.4500e-003</b>	<b>0.0000</b>	<b>17.7340</b>	<b>17.7340</b>	<b>1.7600e-003</b>	<b>3.0000e-004</b>	<b>17.8644</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	231.6687	1.0086	0.0248	260.5304
Unmitigated	304.0267	1.2611	0.0310	340.1328

**7.2 Water by Land Use**

**Unmitigated**



	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	4.95171 / 0	37.4817	0.1622	3.9900e-003	42.1233
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	24.3673 / 0	184.4470	0.7982	0.0196	207.2885
Quality Restaurant	2.48898 / 0	18.8402	0.0815	2.0000e-003	21.1733
Strip Mall	3.34141 / 2.04796	37.9651	0.1098	2.7500e-003	41.1228
User Defined Commercial	3.34141 / 0	25.2927	0.1095	2.6900e-003	28.4248
<b>Total</b>		<b>304.0267</b>	<b>1.2611</b>	<b>0.0310</b>	<b>340.1328</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	3.96136 / 0	28.9882	0.1297	3.1800e-003	32.6995
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	19.4938 / 0	142.6508	0.6384	0.0157	160.9141
Quality Restaurant	1.99118 / 0	14.5709	0.0652	1.6000e-003	16.4364
Strip Mall	2.67313 / 1.02398	25.8975	0.0877	2.1800e-003	28.4146
User Defined Commercial	2.67313 / 0	19.5613	0.0876	2.1500e-003	22.0657

Total		231.6687	1.0086	0.0248	260.5304
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## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	42.9821	2.5402	0.0000	96.3257
Unmitigated	53.7277	3.1752	0.0000	120.4071

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	34.96	7.0966	0.4194	0.0000	15.9039
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	127.5	25.8814	1.5295	0.0000	58.0018
Quality Restaurant	7.48	1.5184	0.0897	0.0000	3.4028

Strip Mall	47.37	9.6157	0.5683	0.0000	21.5494
User Defined Commercial	47.37	9.6157	0.5683	0.0000	21.5494
<b>Total</b>		<b>53.7276</b>	<b>3.1752</b>	<b>0.0000</b>	<b>120.4071</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	27.968	5.6773	0.3355	0.0000	12.7231
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	102	20.7051	1.2236	0.0000	46.4014
Quality Restaurant	5.984	1.2147	0.0718	0.0000	2.7222
Strip Mall	37.896	7.6926	0.4546	0.0000	17.2395
User Defined Commercial	37.896	7.6926	0.4546	0.0000	17.2395
<b>Total</b>		<b>42.9821</b>	<b>2.5402</b>	<b>0.0000</b>	<b>96.3257</b>

## 9.0 Operational Offroad

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

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**APPENDIX B**

**WEST HOLLYWOOD GENERAL PLAN EIR GHG MITIGATION  
MEASURE 3.15-1**

### **3.15 GLOBAL CLIMATE CHANGE**

#### **Mitigation Measure 3.15-1 - Construction-Related GHG Emissions**

To further reduce construction-generated GHG emissions, the project applicant(s) of all project phases shall implement all feasible measures for reducing GHG emissions associated with construction that are recommended by the City and/or SCAQMD at the time individual portions of the site undergo construction.

Prior to releasing each request for bid to contractors for the construction of each development phase, the project applicant(s) shall obtain the most current list of GHG reduction measures that are recommended by the City and stipulate that these measures be implemented in the respective request for bid as well as the subsequent construction contract with the selected primary contractor.

The project applicant(s) for any particular development phase may submit to the City a report that substantiates why specific measures are considered infeasible for construction of that particular development phase and/or at that point in time. The report, including the substantiation for not implementing particular GHG reduction measures, shall be approved by the City prior to the release of a request for bid by the project applicant(s) for seeking a primary contractor to manage the construction of each development phase. By requiring that the list of feasible measures be established prior to the selection of a primary contractor, this measure requires that the ability of a contractor to effectively implement the selected GHG reduction measures be inherent to the selection process.

The City's recommended measures for reducing construction-related GHG emissions at the time of writing this EIR are listed below. The list will be updated as new technologies or methods become available. The project applicant(s) shall, at a minimum, be required to implement the following:

- Improve fuel efficiency of construction equipment:
  - reduce unnecessary idling (modify work practices, install auxiliary power for driver comfort);
  - perform equipment maintenance (inspections, detect failures early, corrections);
  - train equipment operators in proper use of equipment;
  - use the proper size of equipment for the job; and
  - use equipment with new technologies (repowered engines, electric drive trains).
- Use alternative fuels for electricity generators and welders at construction sites such as propane or solar, or use electrical power.
- Use an ARB-approved low-carbon fuel, such as biodiesel or renewable diesel for construction equipment. (emissions of oxides of nitrogen [NOX] from the use of low carbon fuel must be reviewed and increases mitigated.) Additional information about low-carbon fuels is available from ARB's Low Carbon Fuel Standard Program (ARB 2010g).
- Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Recycle or salvage nonhazardous construction and demolition debris (goal of at least 75% by weight).

- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk, and curb materials).
- Minimize the amount of concrete used for paved surfaces or use a low carbon concrete option.
- Produce concrete on-site if determined to be less emissive than transporting ready mix.
- Use EPA-certified SmartWay trucks for deliveries and equipment transport.
  - Additional information about the SmartWay Transport Partnership Program is available from ARB's Heavy-Duty Vehicle Greenhouse Gas Measure<sup>1</sup> and EPA.<sup>2</sup>
- Develop a plan to efficiently use water for adequate dust control. This may consist of the use of nonpotable water from a local source.

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<sup>1</sup> Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation. Available at <http://www.arb.ca.gov/cc/hdghg/hdghg.htm>. Accessed March 2013.

<sup>2</sup> EPA Certified SmartWay. Available at <http://www.epa.gov/smartway/index.htm>. Accessed March 2013.

**APPENDIX C**  
**CALINE4 MODEL PRINTOUTS**

**MELROSE TRIANGLE MIXED-USE PROJECT**

**AIR QUALITY CO HOT SPOT ANALYSIS**

**CALINE4 MODEL PRINTOUTS**

**EXISTING BASELINE CONDITIONS**





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -01 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	17	-19	1.8
2. NW	*	-14	19	1.8
3. SW	*	-12	-21	1.8
4. NE	*	17	21	1.8
5. ES mdbl	*	150	-19	1.8
6. WN mdbl	*	-150	19	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	21	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-14	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	17	150	1.8
13. ES blk	*	600	-19	1.8
14. WN blk	*	-600	19	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	21	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-14	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	17	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -01 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	*	.1	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.1	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.5
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	*	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. La Ciene NBA	*	9	-150	9	0	* AG	1427	5.5	.0	13.5
B. La Ciene NBD	*	9	0	9	150	* AG	1250	3.2	.0	10.0
C. La Ciene NBL	*	5	-150	0	0	* AG	89	5.3	.0	10.0
D. La Ciene SBA	*	-9	150	-9	0	* AG	853	4.5	.0	13.5
E. La Ciene SBD	*	-9	0	-9	-150	* AG	1061	2.9	.0	10.0
F. La Ciene SBL	*	-5	150	0	0	* AG	69	5.3	.0	10.0
G. Melrose EBA	*	-150	-9	0	-9	* AG	861	4.5	.0	13.5
H. Melrose EBD	*	0	-9	150	-9	* AG	1228	3.2	.0	10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	105	5.3	.0	10.0
J. Melrose WBA	*	150	9	0	9	* AG	528	4.2	.0	13.5
K. Melrose WBD	*	0	9	-150	9	* AG	628	2.8	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	235	5.6	.0	10.0
M. La Cien NBAX	*	9	-750	9	-150	* AG	1516	2.6	.0	13.5
N. La Cien NBDX	*	9	150	9	750	* AG	1250	2.6	.0	10.0
O. La Cien SBAX	*	-9	750	-9	150	* AG	922	2.6	.0	13.5
P. La Cien SBDX	*	-9	-150	-9	-750	* AG	1061	2.6	.0	10.0
Q. Melrose EBAX	*	-750	-9	-150	-9	* AG	966	2.6	.0	13.5
R. Melrose EBDX	*	150	-9	750	-9	* AG	1228	2.6	.0	10.0
S. Melrose WBAX	*	750	9	150	9	* AG	763	2.6	.0	13.5
T. Melrose WBDX	*	-150	9	-750	9	* AG	628	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -02 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	17	-15	1.8
2. NW	*	-17	15	1.8
3. SW	*	-15	-17	1.8
4. NE	*	15	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0
17. SE blk	*	.0	.0	.0	.0	.6	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                 AMB= .0 PPM  
 SIGTH= 10. DEGREES            TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH (G/MI)	(M)	(M)
A. San Vinc NBA	*	9	-150	9	0	* AG	722	3.9	.0 13.5
B. San Vinc NBD	*	9	0	9	150	* AG	911	2.7	.0 10.0
C. San Vinc NBL	*	5	-150	0	0	* AG	70	5.3	.0 10.0
D. San Vinc SBA	*	-9	150	-9	0	* AG	517	3.8	.0 13.5
E. San Vinc SBD	*	-9	0	-9	-150	* AG	714	2.7	.0 10.0
F. San Vinc SBL	*	-5	150	0	0	* AG	116	5.3	.0 10.0
G. Melrose EBA	*	-150	-7	0	-7	* AG	694	5.4	.0 10.0
H. Melrose EBD	*	0	-7	150	-7	* AG	838	4.4	.0 10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	82	5.3	.0 10.0
J. Melrose WBA	*	150	7	0	7	* AG	666	5.7	.0 10.0
K. Melrose WBD	*	0	7	-150	7	* AG	563	5.3	.0 10.0
L. Melrose WBL	*	150	5	0	0	* AG	159	5.3	.0 10.0
M. San Vin NBAX	*	9	-750	9	-150	* AG	792	2.6	.0 13.5
N. San Vin NBDX	*	9	150	9	750	* AG	911	2.6	.0 10.0
O. San Vin SBAX	*	-9	750	-9	150	* AG	633	2.6	.0 13.5
P. San Vin SBDX	*	-9	-150	-9	-750	* AG	714	2.6	.0 10.0
Q. Melrose EBAX	*	-750	-7	-150	-7	* AG	776	2.6	.0 10.0
R. Melrose EBDX	*	150	-7	750	-7	* AG	838	2.6	.0 10.0
S. Melrose WBAX	*	750	7	150	7	* AG	825	2.6	.0 10.0
T. Melrose WBDX	*	-150	7	-750	7	* AG	563	2.6	.0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -03 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	17	-14	1.8
2. NW	*	-17	14	1.8
3. SW	*	-15	-14	1.8
4. NE	*	15	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -04 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	12	-15	1.8
2. NW	*	-10	15	1.8
3. SW	*	-10	-17	1.8
4. NE	*	12	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-10	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-10	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	12	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -04 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -05 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Robertso NBA	*	7	-150	7	0	* AG	702	5.5	.0	10.0
B. Robertso NBD	*	7	0	7	150	* AG	514	3.1	.0	10.0
C. Robertso NBL	*	5	-150	0	0	* AG	69	5.3	.0	10.0
D. Robertso SBA	*	-5	150	-5	0	* AG	253	4.3	.0	10.0
E. Robertso SBD	*	-5	0	-5	-150	* AG	526	3.1	.0	10.0
F. Robertso SBL	*	-5	150	0	0	* AG	62	5.3	.0	10.0
G. Melrose EBA	*	-150	-2	0	-2	* AG	538	4.8	.0	10.0
H. Melrose EBD	*	0	-2	150	-2	* AG	810	4.5	.0	10.0
I. Melrose EBL	*	-150	-2	0	0	* AG	35	5.3	.0	10.0
J. Melrose WBA	*	150	7	0	7	* AG	319	4.3	.0	10.0
K. Melrose WBD	*	0	7	-150	7	* AG	342	2.8	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	214	5.6	.0	10.0
M. Roberts NBAX	*	7	-750	7	-150	* AG	771	2.7	.0	10.0
N. Roberts NBDX	*	7	150	7	750	* AG	514	2.7	.0	10.0
O. Roberts SBAX	*	-5	750	-5	150	* AG	315	2.7	.0	10.0
P. Roberts SBDX	*	-5	-150	-5	-750	* AG	526	2.7	.0	10.0
Q. Melrose EBAX	*	-750	-2	-150	-2	* AG	573	2.6	.0	10.0
R. Melrose EBDX	*	150	-2	750	-2	* AG	810	2.6	.0	10.0
S. Melrose WBAX	*	750	7	150	7	* AG	533	2.6	.0	10.0
T. Melrose WBDX	*	-150	7	-750	7	* AG	342	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -05 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-8	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-8	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -05 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Robertso NBA	*	7	-150	7	0	* AG	634	5.7	.0	10.0
B. Robertso NBD	*	7	0	7	150	* AG	700	5.5	.0	10.0
C. Robertso NBL	*	5	-150	0	0	* AG	64	5.3	.0	10.0
D. Robertso SBA	*	-5	150	-5	0	* AG	457	5.6	.0	10.0
E. Robertso SBD	*	-5	0	-5	-150	* AG	492	4.6	.0	10.0
F. Robertso SBL	*	-5	150	0	0	* AG	66	5.3	.0	10.0
G. Beverly EBA	*	-150	-9	0	-9	* AG	947	4.1	.0	13.5
H. Beverly EBD	*	0	-9	150	-9	* AG	1098	2.7	.0	10.0
I. Beverly EBL	*	-150	-5	0	0	* AG	118	5.3	.0	10.0
J. Beverly WBA	*	150	9	0	9	* AG	949	4.1	.0	13.5
K. Beverly WBD	*	0	9	-150	9	* AG	1034	2.7	.0	10.0
L. Beverly WBL	*	150	5	0	0	* AG	89	5.3	.0	10.0
M. Roberts NBAX	*	7	-750	7	-150	* AG	698	2.7	.0	10.0
N. Roberts NBDX	*	7	150	7	750	* AG	700	2.7	.0	10.0
O. Roberts SBAX	*	-5	750	-5	150	* AG	523	2.7	.0	10.0
P. Roberts SBDX	*	-5	-150	-5	-750	* AG	492	2.7	.0	10.0
Q. Beverly EBAX	*	-750	-9	-150	-9	* AG	1065	2.6	.0	13.5
R. Beverly EBDX	*	150	-9	750	-9	* AG	1098	2.6	.0	10.0
S. Beverly WBAX	*	750	9	150	9	* AG	1038	2.6	.0	13.5
T. Beverly WBDX	*	-150	9	-750	9	* AG	1034	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -06 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-12	15	1.8
3. SW	*	-12	-17	1.8
4. NE	*	14	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -07 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	7	-150	7	0	* AG	255	5.0	.0	10.0
B. Doheny NBD	*	7	0	7	150	* AG	168	2.9	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	182	5.3	.0	10.0
D. Doheny SBA	*	-2	150	-2	0	* AG	115	4.8	.0	10.0
E. Doheny SBD	*	-2	0	-2	-150	* AG	322	3.4	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	145	5.3	.0	10.0
G. Sunset EBA	*	-150	-9	0	-9	* AG	1268	4.4	.0	13.5
H. Sunset EBD	*	0	-9	150	-9	* AG	1506	3.0	.0	10.0
I. Sunset EBL	*	-150	-5	0	0	* AG	17	5.3	.0	10.0
J. Sunset WBA	*	150	7	0	7	* AG	1044	4.2	.0	10.0
K. Sunset WBD	*	0	7	-150	7	* AG	1190	2.7	.0	10.0
L. Sunset WBL	*	150	5	0	0	* AG	160	5.3	.0	10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	437	2.6	.0	10.0
N. Doheny NBDX	*	7	150	7	750	* AG	168	2.6	.0	10.0
O. Doheny SBAX	*	-2	750	-2	150	* AG	260	2.6	.0	10.0
P. Doheny SBDX	*	-2	-150	-2	-750	* AG	322	2.6	.0	10.0
Q. Sunset EBAX	*	-750	-9	-150	-9	* AG	1285	2.6	.0	13.5
R. Sunset EBDX	*	150	-9	750	-9	* AG	1506	2.6	.0	10.0
S. Sunset WBAX	*	750	7	150	7	* AG	1204	2.6	.0	10.0
T. Sunset WBDX	*	-150	7	-750	7	* AG	1190	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -07 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-8	14	1.8
3. SW	*	-8	-17	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	14	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	5	-150	5	0	* AG	614	5.2	.0	10.0
B. Doheny NBD	*	5	0	5	150	* AG	737	3.7	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	35	5.3	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	558	4.8	.0	10.0
E. Doheny SBD	*	-5	0	-5	-150	* AG	678	3.2	.0	10.0
F. Doheny SBL	*	-5	150	0	0	* AG	6	5.3	.0	10.0
G. Elevado EBA	*	-150	-2	0	-2	* AG	144	4.2	.0	10.0
H. Elevado EBD	*	0	-2	150	-2	* AG	27	2.9	.0	10.0
I. Elevado EBL	*	-150	-2	0	0	* AG	119	5.3	.0	10.0
J. Elevado WBA	*	150	2	0	2	* AG	12	4.2	.0	10.0
K. Elevado WBD	*	0	2	-150	2	* AG	49	2.9	.0	10.0
L. Elevado WBL	*	150	2	0	0	* AG	3	5.3	.0	10.0
M. Doheny NBAX	*	5	-750	5	-150	* AG	649	2.6	.0	10.0
N. Doheny NBDX	*	5	150	5	750	* AG	737	2.6	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	564	2.6	.0	10.0
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	678	2.6	.0	10.0
Q. Elevado EBAX	*	-750	-2	-150	-2	* AG	263	2.7	.0	10.0
R. Elevado EBDX	*	150	-2	750	-2	* AG	27	2.7	.0	10.0
S. Elevado WBAX	*	750	2	150	2	* AG	15	2.7	.0	10.0
T. Elevado WBDX	*	-150	2	-750	2	* AG	49	2.7	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -08 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	12	-8	1.8
2. NW	*	-12	8	1.8
3. SW	*	-12	-8	1.8
4. NE	*	12	8	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	12	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	2	-150	2	0	* AG	489	4.2	.0	10.0
B. Doheny NBD	*	2	0	2	150	* AG	432	2.8	.0	10.0
C. Doheny NBL	*	2	-150	0	0	* AG	28	5.3	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	465	4.2	.0	11.8
E. Doheny SBD	*	-5	0	-5	-150	* AG	520	2.8	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	210	5.6	.0	10.0
G. Santa Mo EBA	*	-150	-11	0	-11	* AG	1433	5.5	.0	17.0
H. Santa Mo EBD	*	0	-11	150	-11	* AG	1755	4.5	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	61	5.3	.0	10.0
J. Santa Mo WBA	*	150	7	0	7	* AG	869	4.5	.0	10.0
K. Santa Mo WBD	*	0	7	-150	7	* AG	946	2.8	.0	10.0
L. Santa Mo WBL	*	150	5	0	0	* AG	98	5.3	.0	10.0
M. Doheny NBAX	*	2	-750	2	-150	* AG	517	2.6	.0	10.0
N. Doheny NBDX	*	2	150	2	750	* AG	432	2.6	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	675	2.6	.0	11.8
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	520	2.6	.0	10.0
Q. Santa M EBAX	*	-750	-11	-150	-11	* AG	1494	2.6	.0	17.0
R. Santa M EBDX	*	150	-11	750	-11	* AG	1755	2.6	.0	10.0
S. Santa M WBAX	*	750	7	150	7	* AG	967	2.6	.0	10.0
T. Santa M WBDX	*	-150	7	-750	7	* AG	946	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -09 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	8	-17	1.8
2. NW	*	-13	14	1.8
3. SW	*	-12	-21	1.8
4. NE	*	8	14	1.8
5. ES mdbl	*	150	-17	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	8	-150	1.8
10. NW mdbl	*	-13	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	8	150	1.8
13. ES blk	*	600	-17	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	8	-600	1.8
18. NW blk	*	-13	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	8	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* *	LINK COORDINATES (M)				* *	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2	* TYPE	VPH		
A. Doheny NBA	*	7	-150	7	0	* AG	561	5.7	.0 10.0
B. Doheny NBD	*	7	0	7	150	* AG	551	5.3	.0 10.0
C. Doheny NBL	*	5	-150	0	0	* AG	100	5.3	.0 10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	408	5.6	.0 10.0
E. Doheny SBD	*	-5	0	-5	-150	* AG	572	5.3	.0 10.0
F. Doheny SBL	*	-5	150	0	0	* AG	98	5.3	.0 10.0
G. Beverly EBA	*	-150	-7	0	-7	* AG	792	3.9	.0 10.0
H. Beverly EBD	*	0	-7	150	-7	* AG	975	2.7	.0 10.0
I. Beverly EBL	*	-150	-5	0	0	* AG	83	5.3	.0 10.0
J. Beverly WBA	*	150	7	0	7	* AG	795	3.9	.0 10.0
K. Beverly WBD	*	0	7	-150	7	* AG	860	2.7	.0 10.0
L. Beverly WBL	*	150	5	0	0	* AG	121	5.3	.0 10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	661	2.6	.0 10.0
N. Doheny NBDX	*	7	150	7	750	* AG	551	2.6	.0 10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	506	2.6	.0 10.0
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	572	2.6	.0 10.0
Q. Beverly EBAX	*	-750	-7	-150	-7	* AG	875	2.6	.0 10.0
R. Beverly EBDX	*	150	-7	750	-7	* AG	975	2.6	.0 10.0
S. Beverly WBAX	*	750	7	150	7	* AG	916	2.6	.0 10.0
T. Beverly WBDX	*	-150	7	-750	7	* AG	860	2.6	.0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -10 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-14	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-14	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Melrose Triangle  
 RUN: Existing -10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* * BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	* 278.	* 1.1	* .2	.0	.0	.0	.1	.0	.4	.0
2. NW	* 171.	* 1.1	* .2	.0	.0	.0	.4	.0	.1	.0
3. SW	* 82.	* 1.1	* .1	.0	.0	.0	.2	.0	.0	.3
4. NE	* 189.	* 1.1	* .4	.0	.0	.0	.2	.0	.0	.0
5. ES mdbl	* 278.	* .8	* .0	.0	.0	.0	.0	.0	.0	.4
6. WN mdbl	* 97.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 83.	* .9	* .0	.0	.0	.0	.0	.0	.4	.0
8. EN mdbl	* 262.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 352.	* 1.0	* .5	.0	.0	.0	.1	.0	.0	.0
10. NW mdbl	* 173.	* .9	* .0	.1	.0	.4	.0	.0	.0	.0
11. SW mdbl	* 8.	* .9	* .1	.0	.0	.0	.5	.0	.0	.0
12. NE mdbl	* 187.	* .9	* .0	.4	.0	.0	.0	.0	.0	.0
13. ES blk	* 276.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 96.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 263.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 354.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 174.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 6.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 186.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Existing -10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Existing -11 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Foothill NBA	*	0	-150	0	0	* AG	0	2.6	.0	10.0
B. Foothill NBD	*	0	0	0	150	* AG	60	2.9	.0	10.0
C. Foothill NBL	*	2	-150	0	0	* AG	0	2.6	.0	10.0
D. Foothill SBA	*	-2	150	-2	0	* AG	13	4.8	.0	10.0
E. Foothill SBD	*	-2	0	-2	-150	* AG	0	2.6	.0	10.0
F. Foothill SBL	*	-2	150	0	0	* AG	7	5.3	.0	10.0
G. Santa Mo EBA	*	-150	-7	0	-7	* AG	1818	5.5	.0	10.0
H. Santa Mo EBD	*	0	-7	150	-7	* AG	1825	3.9	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	16	5.3	.0	10.0
J. Santa Mo WBA	*	150	4	0	4	* AG	1524	4.9	.0	10.0
K. Santa Mo WBD	*	0	4	-150	4	* AG	1493	3.1	.0	10.0
L. Santa Mo WBL	*	150	2	0	0	* AG	0	2.7	.0	10.0
M. Foothil NBAX	*	0	-750	0	-150	* AG	0	2.6	.0	10.0
N. Foothil NBDX	*	0	150	0	750	* AG	60	2.6	.0	10.0
O. Foothil SBAX	*	-2	750	-2	150	* AG	20	2.6	.0	10.0
P. Foothil SBDX	*	-2	-150	-2	-750	* AG	0	2.6	.0	10.0
Q. Santa M EBAX	*	-750	-7	-150	-7	* AG	1834	2.7	.0	10.0
R. Santa M EBDX	*	150	-7	750	-7	* AG	1825	2.7	.0	10.0
S. Santa M WBAX	*	750	4	150	4	* AG	1524	2.7	.0	10.0
T. Santa M WBDX	*	-150	4	-750	4	* AG	1493	2.7	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Existing -11 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	7	-14	1.8
2. NW	*	-8	10	1.8
3. SW	*	-8	-14	1.8
4. NE	*	7	10	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	10	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	10	1.8
9. SE mdbl	*	7	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	7	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	10	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	10	1.8
17. SE blk	*	7	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	7	600	1.8





**MELROSE TRIANGLE MIXED-USE PROJECT**

**AIR QUALITY CO HOT SPOT ANALYSIS**

**CALINE4 MODEL PRINTOUTS**

**EXISTING PLUS PROJECT CONDITIONS**

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-01 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. La Ciene NBA	*	11	-150	11	0	* AG	941	4.5	.0	10.0
B. La Ciene NBD	*	11	0	11	150	* AG	1284	3.2	.0	10.0
C. La Ciene NBL	*	9	-150	0	0	* AG	175	5.3	.0	10.0
D. La Ciene SBA	*	-5	150	-5	0	* AG	974	4.5	.0	13.5
E. La Ciene SBD	*	-5	0	-5	-150	* AG	874	2.8	.0	10.0
F. La Ciene SBL	*	-2	150	0	0	* AG	0	2.6	.0	10.0
G. Santa Mo EBA	*	-150	-12	0	-12	* AG	1188	4.8	.0	13.5
H. Santa Mo EBD	*	0	-12	150	-12	* AG	1226	3.2	.0	10.0
I. Santa Mo EBL	*	-150	-9	0	0	* AG	460	5.6	.0	10.0
J. Santa Mo WBA	*	150	12	0	12	* AG	820	4.5	.0	13.5
K. Santa Mo WBD	*	0	12	-150	12	* AG	1339	3.2	.0	10.0
L. Santa Mo WBL	*	150	9	0	0	* AG	165	5.3	.0	10.0
M. La Cien NBAX	*	11	-750	11	-150	* AG	1116	2.6	.0	10.0
N. La Cien NBDX	*	11	150	11	750	* AG	1284	2.6	.0	10.0
O. La Cien SBAX	*	-5	750	-5	150	* AG	974	2.6	.0	13.5
P. La Cien SBDX	*	-5	-150	-5	-750	* AG	874	2.6	.0	10.0
Q. Santa M EBAX	*	-750	-12	-150	-12	* AG	1648	2.6	.0	13.5
R. Santa M EBDX	*	150	-12	750	-12	* AG	1226	2.6	.0	10.0
S. Santa M WBAX	*	750	12	150	12	* AG	985	2.6	.0	13.5
T. Santa M WBDX	*	-150	12	-750	12	* AG	1339	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-01 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-19	1.8
2. NW	*	-14	19	1.8
3. SW	*	-12	-21	1.8
4. NE	*	17	21	1.8
5. ES mdbl	*	150	-19	1.8
6. WN mdbl	*	-150	19	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	21	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-14	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	17	150	1.8
13. ES blk	*	600	-19	1.8
14. WN blk	*	-600	19	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	21	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-14	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	17	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-01 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.1	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.1	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	*	.1	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.1	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.5
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	*	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. La Ciene NBA	*	9	-150	9	0	* AG	1427	5.5	.0	13.5
B. La Ciene NBD	*	9	0	9	150	* AG	1250	3.2	.0	10.0
C. La Ciene NBL	*	5	-150	0	0	* AG	98	5.3	.0	10.0
D. La Ciene SBA	*	-9	150	-9	0	* AG	857	4.5	.0	13.5
E. La Ciene SBD	*	-9	0	-9	-150	* AG	1074	2.9	.0	10.0
F. La Ciene SBL	*	-5	150	0	0	* AG	69	5.3	.0	10.0
G. Melrose EBA	*	-150	-9	0	-9	* AG	887	4.5	.0	13.5
H. Melrose EBD	*	0	-9	150	-9	* AG	1241	3.2	.0	10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	105	5.3	.0	10.0
J. Melrose WBA	*	150	9	0	9	* AG	537	4.2	.0	13.5
K. Melrose WBD	*	0	9	-150	9	* AG	650	2.8	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	235	5.6	.0	10.0
M. La Cien NBAX	*	9	-750	9	-150	* AG	1525	2.6	.0	13.5
N. La Cien NBDX	*	9	150	9	750	* AG	1250	2.6	.0	10.0
O. La Cien SBAX	*	-9	750	-9	150	* AG	926	2.6	.0	13.5
P. La Cien SBDX	*	-9	-150	-9	-750	* AG	1074	2.6	.0	10.0
Q. Melrose EBAX	*	-750	-9	-150	-9	* AG	992	2.6	.0	13.5
R. Melrose EBDX	*	150	-9	750	-9	* AG	1241	2.6	.0	10.0
S. Melrose WBAX	*	750	9	150	9	* AG	772	2.6	.0	13.5
T. Melrose WBDX	*	-150	9	-750	9	* AG	650	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-02 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-15	1.8
2. NW	*	-17	15	1.8
3. SW	*	-15	-17	1.8
4. NE	*	15	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0
17. SE blk	*	.0	.0	.0	.0	.6	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.5	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. San Vinc NBA	*	9	-150	9	0	* AG	722	3.9	.0	13.5
B. San Vinc NBD	*	9	0	9	150	* AG	911	2.7	.0	10.0
C. San Vinc NBL	*	5	-150	0	0	* AG	84	5.3	.0	10.0
D. San Vinc SBA	*	-9	150	-9	0	* AG	517	3.8	.0	13.5
E. San Vinc SBD	*	-9	0	-9	-150	* AG	741	2.7	.0	10.0
F. San Vinc SBL	*	-5	150	0	0	* AG	116	5.3	.0	10.0
G. Melrose EBA	*	-150	-7	0	-7	* AG	746	5.4	.0	10.0
H. Melrose EBD	*	0	-7	150	-7	* AG	863	4.4	.0	10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	82	5.3	.0	10.0
J. Melrose WBA	*	150	7	0	7	* AG	688	5.7	.0	10.0
K. Melrose WBD	*	0	7	-150	7	* AG	599	5.3	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	159	5.3	.0	10.0
M. San Vin NBAX	*	9	-750	9	-150	* AG	806	2.6	.0	13.5
N. San Vin NBDX	*	9	150	9	750	* AG	911	2.6	.0	10.0
O. San Vin SBAX	*	-9	750	-9	150	* AG	633	2.6	.0	13.5
P. San Vin SBDX	*	-9	-150	-9	-750	* AG	741	2.6	.0	10.0
Q. Melrose EBAX	*	-750	-7	-150	-7	* AG	828	2.6	.0	10.0
R. Melrose EBDX	*	150	-7	750	-7	* AG	863	2.6	.0	10.0
S. Melrose WBAX	*	750	7	150	7	* AG	847	2.6	.0	10.0
T. Melrose WBDX	*	-150	7	-750	7	* AG	599	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-03 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-14	1.8
2. NW	*	-17	14	1.8
3. SW	*	-15	-14	1.8
4. NE	*	15	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-04 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Robertso NBA	*	5	-150	5	0	* AG	417	5.6	.0	10.0
B. Robertso NBD	*	5	0	5	150	* AG	269	3.2	.0	10.0
C. Robertso NBL	*	5	-150	0	0	* AG	72	5.3	.0	10.0
D. Robertso SBA	*	-4	150	-4	0	* AG	116	4.9	.0	10.0
E. Robertso SBD	*	-4	0	-4	-150	* AG	315	3.5	.0	10.0
F. Robertso SBL	*	-2	150	0	0	* AG	103	5.3	.0	10.0
G. Santa Mo EBA	*	-150	-9	0	-9	* AG	1312	4.4	.0	13.5
H. Santa Mo EBD	*	0	-9	150	-9	* AG	1661	3.3	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	73	5.3	.0	10.0
J. Santa Mo WBA	*	150	9	0	9	* AG	1014	4.2	.0	13.5
K. Santa Mo WBD	*	0	9	-150	9	* AG	1033	2.7	.0	10.0
L. Santa Mo WBL	*	150	5	0	0	* AG	171	5.3	.0	10.0
M. Roberts NBAX	*	5	-750	5	-150	* AG	489	2.7	.0	10.0
N. Roberts NBDX	*	5	150	5	750	* AG	269	2.7	.0	10.0
O. Roberts SBAX	*	-4	750	-4	150	* AG	219	2.7	.0	10.0
P. Roberts SBDX	*	-4	-150	-4	-750	* AG	315	2.7	.0	10.0
Q. Santa M EBAX	*	-750	-9	-150	-9	* AG	1385	2.6	.0	13.5
R. Santa M EBDX	*	150	-9	750	-9	* AG	1661	2.6	.0	10.0
S. Santa M WBAX	*	750	9	150	9	* AG	1185	2.6	.0	13.5
T. Santa M WBDX	*	-150	9	-750	9	* AG	1033	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-04 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	12	-15	1.8
2. NW	*	-10	15	1.8
3. SW	*	-10	-17	1.8
4. NE	*	12	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-10	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-10	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	12	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-04 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.6	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-05 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Robertso NBA	*	7	-150	7	0	* AG	702	5.5	.0	10.0
B. Robertso NBD	*	7	0	7	150	* AG	514	3.1	.0	10.0
C. Robertso NBL	*	5	-150	0	0	* AG	74	5.3	.0	10.0
D. Robertso SBA	*	-5	150	-5	0	* AG	253	4.3	.0	10.0
E. Robertso SBD	*	-5	0	-5	-150	* AG	546	3.1	.0	10.0
F. Robertso SBL	*	-5	150	0	0	* AG	62	5.3	.0	10.0
G. Melrose EBA	*	-150	-2	0	-2	* AG	610	5.2	.0	10.0
H. Melrose EBD	*	0	-2	150	-2	* AG	862	4.5	.0	10.0
I. Melrose EBL	*	-150	-2	0	0	* AG	35	5.3	.0	10.0
J. Melrose WBA	*	150	7	0	7	* AG	354	4.3	.0	10.0
K. Melrose WBD	*	0	7	-150	7	* AG	382	2.8	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	214	5.6	.0	10.0
M. Roberts NBAX	*	7	-750	7	-150	* AG	776	2.7	.0	10.0
N. Roberts NBDX	*	7	150	7	750	* AG	514	2.7	.0	10.0
O. Roberts SBAX	*	-5	750	-5	150	* AG	315	2.7	.0	10.0
P. Roberts SBDX	*	-5	-150	-5	-750	* AG	546	2.7	.0	10.0
Q. Melrose EBAX	*	-750	-2	-150	-2	* AG	645	2.6	.0	10.0
R. Melrose EBDX	*	150	-2	750	-2	* AG	862	2.6	.0	10.0
S. Melrose WBAX	*	750	7	150	7	* AG	568	2.6	.0	10.0
T. Melrose WBDX	*	-150	7	-750	7	* AG	382	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-05 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-8	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-8	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-05 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0
17. SE blk	*	.0	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Robertso NBA	*	7	-150	7	0	* AG	639	5.7	.0	10.0
B. Robertso NBD	*	7	0	7	150	* AG	705	5.6	.0	10.0
C. Robertso NBL	*	5	-150	0	0	* AG	64	5.3	.0	10.0
D. Robertso SBA	*	-5	150	-5	0	* AG	471	5.6	.0	10.0
E. Robertso SBD	*	-5	0	-5	-150	* AG	506	5.3	.0	10.0
F. Robertso SBL	*	-5	150	0	0	* AG	71	5.3	.0	10.0
G. Beverly EBA	*	-150	-9	0	-9	* AG	947	4.1	.0	13.5
H. Beverly EBD	*	0	-9	150	-9	* AG	1103	2.7	.0	10.0
I. Beverly EBL	*	-150	-5	0	0	* AG	118	5.3	.0	10.0
J. Beverly WBA	*	150	9	0	9	* AG	953	4.1	.0	13.5
K. Beverly WBD	*	0	9	-150	9	* AG	1038	2.7	.0	10.0
L. Beverly WBL	*	150	5	0	0	* AG	89	5.3	.0	10.0
M. Roberts NBAX	*	7	-750	7	-150	* AG	703	2.7	.0	10.0
N. Roberts NBDX	*	7	150	7	750	* AG	705	2.7	.0	10.0
O. Roberts SBAX	*	-5	750	-5	150	* AG	542	2.7	.0	10.0
P. Roberts SBDX	*	-5	-150	-5	-750	* AG	506	2.7	.0	10.0
Q. Beverly EBAX	*	-750	-9	-150	-9	* AG	1065	2.6	.0	13.5
R. Beverly EBDX	*	150	-9	750	-9	* AG	1103	2.6	.0	10.0
S. Beverly WBAX	*	750	9	150	9	* AG	1042	2.6	.0	13.5
T. Beverly WBDX	*	-150	9	-750	9	* AG	1038	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-06 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	14	-15	1.8
2. NW	*	-12	15	1.8
3. SW	*	-12	-17	1.8
4. NE	*	14	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-07 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	7	-150	7	0	* AG	255	5.0	.0	10.0
B. Doheny NBD	*	7	0	7	150	* AG	168	2.9	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	192	5.3	.0	10.0
D. Doheny SBA	*	-2	150	-2	0	* AG	115	4.8	.0	10.0
E. Doheny SBD	*	-2	0	-2	-150	* AG	329	3.4	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	145	5.3	.0	10.0
G. Sunset EBA	*	-150	-9	0	-9	* AG	1275	4.4	.0	13.5
H. Sunset EBD	*	0	-9	150	-9	* AG	1506	3.0	.0	10.0
I. Sunset EBL	*	-150	-5	0	0	* AG	17	5.3	.0	10.0
J. Sunset WBA	*	150	7	0	7	* AG	1044	4.2	.0	10.0
K. Sunset WBD	*	0	7	-150	7	* AG	1200	2.7	.0	10.0
L. Sunset WBL	*	150	5	0	0	* AG	160	5.3	.0	10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	447	2.6	.0	10.0
N. Doheny NBDX	*	7	150	7	750	* AG	168	2.6	.0	10.0
O. Doheny SBAX	*	-2	750	-2	150	* AG	260	2.6	.0	10.0
P. Doheny SBDX	*	-2	-150	-2	-750	* AG	329	2.6	.0	10.0
Q. Sunset EBAX	*	-750	-9	-150	-9	* AG	1292	2.6	.0	13.5
R. Sunset EBDX	*	150	-9	750	-9	* AG	1506	2.6	.0	10.0
S. Sunset WBAX	*	750	7	150	7	* AG	1204	2.6	.0	10.0
T. Sunset WBDX	*	-150	7	-750	7	* AG	1200	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-07 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-8	14	1.8
3. SW	*	-8	-17	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	14	600	1.8







CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	5	-150	5	0	* AG	637	5.2	.0	10.0
B. Doheny NBD	*	5	0	5	150	* AG	760	3.7	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	35	5.3	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	573	4.8	.0	10.0
E. Doheny SBD	*	-5	0	-5	-150	* AG	693	3.2	.0	10.0
F. Doheny SBL	*	-5	150	0	0	* AG	6	5.3	.0	10.0
G. Elevado EBA	*	-150	-2	0	-2	* AG	144	4.2	.0	10.0
H. Elevado EBD	*	0	-2	150	-2	* AG	27	2.9	.0	10.0
I. Elevado EBL	*	-150	-2	0	0	* AG	119	5.3	.0	10.0
J. Elevado WBA	*	150	2	0	2	* AG	12	4.2	.0	10.0
K. Elevado WBD	*	0	2	-150	2	* AG	49	2.9	.0	10.0
L. Elevado WBL	*	150	2	0	0	* AG	3	5.3	.0	10.0
M. Doheny NBAX	*	5	-750	5	-150	* AG	672	2.6	.0	10.0
N. Doheny NBDX	*	5	150	5	750	* AG	760	2.6	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	579	2.6	.0	10.0
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	693	2.6	.0	10.0
Q. Elevado EBAX	*	-750	-2	-150	-2	* AG	263	2.7	.0	10.0
R. Elevado EBDX	*	150	-2	750	-2	* AG	27	2.7	.0	10.0
S. Elevado WBAX	*	750	2	150	2	* AG	15	2.7	.0	10.0
T. Elevado WBDX	*	-150	2	-750	2	* AG	49	2.7	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-08 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	12	-8	1.8
2. NW	*	-12	8	1.8
3. SW	*	-12	-8	1.8
4. NE	*	12	8	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	12	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	2	-150	2	0	* AG	490	4.2	.0	10.0
B. Doheny NBD	*	2	0	2	150	* AG	451	2.8	.0	10.0
C. Doheny NBL	*	2	-150	0	0	* AG	28	5.3	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	465	4.2	.0	11.8
E. Doheny SBD	*	-5	0	-5	-150	* AG	527	2.8	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	225	5.6	.0	10.0
G. Santa Mo EBA	*	-150	-11	0	-11	* AG	1448	5.5	.0	17.0
H. Santa Mo EBD	*	0	-11	150	-11	* AG	1786	4.5	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	61	5.3	.0	10.0
J. Santa Mo WBA	*	150	7	0	7	* AG	923	4.5	.0	10.0
K. Santa Mo WBD	*	0	7	-150	7	* AG	981	2.8	.0	10.0
L. Santa Mo WBL	*	150	5	0	0	* AG	105	5.3	.0	10.0
M. Doheny NBAX	*	2	-750	2	-150	* AG	518	2.6	.0	10.0
N. Doheny NBDX	*	2	150	2	750	* AG	451	2.6	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	690	2.6	.0	11.8
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	527	2.6	.0	10.0
Q. Santa M EBAX	*	-750	-11	-150	-11	* AG	1509	2.6	.0	17.0
R. Santa M EBDX	*	150	-11	750	-11	* AG	1786	2.6	.0	10.0
S. Santa M WBAX	*	750	7	150	7	* AG	1028	2.6	.0	10.0
T. Santa M WBDX	*	-150	7	-750	7	* AG	981	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-09 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	8	-17	1.8
2. NW	*	-13	14	1.8
3. SW	*	-12	-21	1.8
4. NE	*	8	14	1.8
5. ES mdbl	*	150	-17	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	8	-150	1.8
10. NW mdbl	*	-13	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	8	150	1.8
13. ES blk	*	600	-17	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	8	-600	1.8
18. NW blk	*	-13	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	8	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	7	-150	7	0	* AG	584	5.7	.0	10.0
B. Doheny NBD	*	7	0	7	150	* AG	578	5.3	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	100	5.3	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	415	5.6	.0	10.0
E. Doheny SBD	*	-5	0	-5	-150	* AG	579	5.3	.0	10.0
F. Doheny SBL	*	-5	150	0	0	* AG	98	5.3	.0	10.0
G. Beverly EBA	*	-150	-7	0	-7	* AG	792	3.9	.0	10.0
H. Beverly EBD	*	0	-7	150	-7	* AG	975	2.7	.0	10.0
I. Beverly EBL	*	-150	-5	0	0	* AG	83	5.3	.0	10.0
J. Beverly WBA	*	150	7	0	7	* AG	799	3.9	.0	10.0
K. Beverly WBD	*	0	7	-150	7	* AG	860	2.7	.0	10.0
L. Beverly WBL	*	150	5	0	0	* AG	121	5.3	.0	10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	684	2.6	.0	10.0
N. Doheny NBDX	*	7	150	7	750	* AG	578	2.6	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	513	2.6	.0	10.0
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	579	2.6	.0	10.0
Q. Beverly EBAX	*	-750	-7	-150	-7	* AG	875	2.6	.0	10.0
R. Beverly EBDX	*	150	-7	750	-7	* AG	975	2.6	.0	10.0
S. Beverly WBAX	*	750	7	150	7	* AG	920	2.6	.0	10.0
T. Beverly WBDX	*	-150	7	-750	7	* AG	860	2.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-10 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-14	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-14	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: Exist+p-10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: Exist+p-11 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Foothill NBA	*	0	-150	0	0	* AG	0	2.6	.0	10.0
B. Foothill NBD	*	0	0	0	150	* AG	60	2.9	.0	10.0
C. Foothill NBL	*	2	-150	0	0	* AG	0	2.6	.0	10.0
D. Foothill SBA	*	-2	150	-2	0	* AG	13	4.8	.0	10.0
E. Foothill SBD	*	-2	0	-2	-150	* AG	0	2.6	.0	10.0
F. Foothill SBL	*	-2	150	0	0	* AG	7	5.3	.0	10.0
G. Santa Mo EBA	*	-150	-7	0	-7	* AG	1833	5.5	.0	10.0
H. Santa Mo EBD	*	0	-7	150	-7	* AG	1840	3.9	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	16	5.3	.0	10.0
J. Santa Mo WBA	*	150	4	0	4	* AG	1559	4.9	.0	10.0
K. Santa Mo WBD	*	0	4	-150	4	* AG	1528	3.1	.0	10.0
L. Santa Mo WBL	*	150	2	0	0	* AG	0	2.7	.0	10.0
M. Foothil NBAX	*	0	-750	0	-150	* AG	0	2.6	.0	10.0
N. Foothil NBDX	*	0	150	0	750	* AG	60	2.6	.0	10.0
O. Foothil SBAX	*	-2	750	-2	150	* AG	20	2.6	.0	10.0
P. Foothil SBDX	*	-2	-150	-2	-750	* AG	0	2.6	.0	10.0
Q. Santa M EBAX	*	-750	-7	-150	-7	* AG	1849	2.7	.0	10.0
R. Santa M EBDX	*	150	-7	750	-7	* AG	1840	2.7	.0	10.0
S. Santa M WBAX	*	750	4	150	4	* AG	1559	2.7	.0	10.0
T. Santa M WBDX	*	-150	4	-750	4	* AG	1528	2.7	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: Exist+p-11 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
-----*				
1. SE	*	7	-14	1.8
2. NW	*	-8	10	1.8
3. SW	*	-8	-14	1.8
4. NE	*	7	10	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	10	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	10	1.8
9. SE mdbl	*	7	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	7	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	10	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	10	1.8
17. SE blk	*	7	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	7	600	1.8







**MELROSE TRIANGLE MIXED-USE PROJECT**  
**AIR QUALITY CO HOT SPOT ANALYSIS**  
**CALINE4 MODEL PRINTOUTS**  
**OPENING YEAR (2016) WITHOUT PROJECT SCENARIO**

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-01 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH (G/MI)	(M)	(M)
A. La Ciene NBA	*	11	-150	11	0	* AG	1239	3.7	.0 10.0
B. La Ciene NBD	*	11	0	11	150	* AG	1519	2.7	.0 10.0
C. La Ciene NBL	*	9	-150	0	0	* AG	182	3.7	.0 10.0
D. La Ciene SBA	*	-9	150	-9	0	* AG	1124	3.4	.0 13.5
E. La Ciene SBD	*	-9	0	-9	-150	* AG	1082	2.1	.0 10.0
F. La Ciene SBL	*	-5	150	0	0	* AG	24	3.7	.0 10.0
G. Santa Mo EBA	*	-150	-12	0	-12	* AG	1526	3.9	.0 13.5
H. Santa Mo EBD	*	0	-12	150	-12	* AG	1719	3.2	.0 10.0
I. Santa Mo EBL	*	-150	-9	0	0	* AG	519	3.9	.0 10.0
J. Santa Mo WBA	*	150	12	0	12	* AG	1166	3.4	.0 13.5
K. Santa Mo WBD	*	0	12	-150	12	* AG	1718	3.2	.0 10.0
L. Santa Mo WBL	*	150	9	0	0	* AG	258	3.7	.0 10.0
M. La Cien NBAX	*	11	-750	11	-150	* AG	1421	1.9	.0 10.0
N. La Cien NBDX	*	11	150	11	750	* AG	1519	1.9	.0 10.0
O. La Cien SBAX	*	-9	750	-9	150	* AG	1148	1.9	.0 13.5
P. La Cien SBDX	*	-9	-150	-9	-750	* AG	1082	1.9	.0 10.0
Q. Santa M EBAX	*	-750	-12	-150	-12	* AG	2045	1.9	.0 13.5
R. Santa M EBDX	*	150	-12	750	-12	* AG	1719	1.9	.0 10.0
S. Santa M WBAX	*	750	12	150	12	* AG	1424	1.9	.0 13.5
T. Santa M WBDX	*	-150	12	-750	12	* AG	1718	1.9	.0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-01 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-19	1.8
2. NW	*	-17	19	1.8
3. SW	*	-15	-21	1.8
4. NE	*	17	21	1.8
5. ES mdbl	*	150	-19	1.8
6. WN mdbl	*	-150	19	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	21	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	17	150	1.8
13. ES blk	*	600	-19	1.8
14. WN blk	*	-600	19	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	21	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	17	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-01 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.1	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.5
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	*	.0	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH (G/MI)	(M)	(M)	
A. La Ciene NBA	*	9	-150	9	0	* AG	1606	3.9	.0	13.5
B. La Ciene NBD	*	9	0	9	150	* AG	1555	2.7	.0	10.0
C. La Ciene NBL	*	5	-150	0	0	* AG	167	3.7	.0	10.0
D. La Ciene SBA	*	-9	150	-9	0	* AG	1048	3.4	.0	13.5
E. La Ciene SBD	*	-9	0	-9	-150	* AG	1327	2.3	.0	10.0
F. La Ciene SBL	*	-5	150	0	0	* AG	83	3.7	.0	10.0
G. Melrose EBA	*	-150	-9	0	-9	* AG	1127	3.4	.0	13.5
H. Melrose EBD	*	0	-9	150	-9	* AG	1389	2.3	.0	10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	235	3.9	.0	10.0
J. Melrose WBA	*	150	9	0	9	* AG	620	3.1	.0	13.5
K. Melrose WBD	*	0	9	-150	9	* AG	857	2.1	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	242	3.9	.0	10.0
M. La Cien NBAX	*	9	-750	9	-150	* AG	1773	1.9	.0	13.5
N. La Cien NBDX	*	9	150	9	750	* AG	1555	1.9	.0	10.0
O. La Cien SBAX	*	-9	750	-9	150	* AG	1131	1.9	.0	13.5
P. La Cien SBDX	*	-9	-150	-9	-750	* AG	1327	1.9	.0	10.0
Q. Melrose EBAX	*	-750	-9	-150	-9	* AG	1362	1.9	.0	13.5
R. Melrose EBDX	*	150	-9	750	-9	* AG	1389	1.9	.0	10.0
S. Melrose WBAX	*	750	9	150	9	* AG	862	1.9	.0	13.5
T. Melrose WBDX	*	-150	9	-750	9	* AG	857	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-02 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-15	1.8
2. NW	*	-17	15	1.8
3. SW	*	-15	-17	1.8
4. NE	*	15	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*		EF	H	W
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. San Vinc NBA	*	9	-150	9	0	* AG	928	2.9	.0	13.5
B. San Vinc NBD	*	9	0	9	150	* AG	1092	2.0	.0	10.0
C. San Vinc NBL	*	5	-150	0	0	* AG	74	3.7	.0	10.0
D. San Vinc SBA	*	-9	150	-9	0	* AG	793	2.8	.0	13.5
E. San Vinc SBD	*	-9	0	-9	-150	* AG	1045	2.0	.0	10.0
F. San Vinc SBL	*	-5	150	0	0	* AG	127	3.7	.0	10.0
G. Melrose EBA	*	-150	-7	0	-7	* AG	765	3.8	.0	10.0
H. Melrose EBD	*	0	-7	150	-7	* AG	959	3.1	.0	10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	85	3.7	.0	10.0
J. Melrose WBA	*	150	7	0	7	* AG	725	4.0	.0	10.0
K. Melrose WBD	*	0	7	-150	7	* AG	608	3.9	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	207	3.9	.0	10.0
M. San Vin NBAX	*	9	-750	9	-150	* AG	1002	1.9	.0	13.5
N. San Vin NBDX	*	9	150	9	750	* AG	1092	1.9	.0	10.0
O. San Vin SBAX	*	-9	750	-9	150	* AG	920	1.9	.0	13.5
P. San Vin SBDX	*	-9	-150	-9	-750	* AG	1045	1.9	.0	10.0
Q. Melrose EBAX	*	-750	-7	-150	-7	* AG	850	1.9	.0	10.0
R. Melrose EBDX	*	150	-7	750	-7	* AG	959	1.9	.0	10.0
S. Melrose WBAX	*	750	7	150	7	* AG	932	1.9	.0	10.0
T. Melrose WBDX	*	-150	7	-750	7	* AG	608	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-03 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-14	1.8
2. NW	*	-17	14	1.8
3. SW	*	-15	-14	1.8
4. NE	*	15	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-04 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	12	-15	1.8
2. NW	*	-10	15	1.8
3. SW	*	-10	-17	1.8
4. NE	*	12	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-10	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-10	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	12	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-04 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
5. ES mdbl	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.5
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-05 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-8	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-8	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-05 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-06 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-12	15	1.8
3. SW	*	-12	-17	1.8
4. NE	*	14	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-07 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	7	-150	7	0	* AG	335	3.8	.0	10.0
B. Doheny NBD	*	7	0	7	150	* AG	168	2.2	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	203	3.7	.0	10.0
D. Doheny SBA	*	-2	150	-2	0	* AG	115	3.4	.0	10.0
E. Doheny SBD	*	-2	0	-2	-150	* AG	410	3.1	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	146	3.7	.0	10.0
G. Sunset EBA	*	-150	-9	0	-9	* AG	1444	3.5	.0	13.5
H. Sunset EBD	*	0	-9	150	-9	* AG	1747	2.4	.0	10.0
I. Sunset EBL	*	-150	-5	0	0	* AG	17	3.7	.0	10.0
J. Sunset WBA	*	150	7	0	7	* AG	1216	3.2	.0	10.0
K. Sunset WBD	*	0	7	-150	7	* AG	1383	2.1	.0	10.0
L. Sunset WBL	*	150	5	0	0	* AG	232	3.9	.0	10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	538	1.9	.0	10.0
N. Doheny NBDX	*	7	150	7	750	* AG	168	1.9	.0	10.0
O. Doheny SBAX	*	-2	750	-2	150	* AG	261	1.9	.0	10.0
P. Doheny SBDX	*	-2	-150	-2	-750	* AG	410	1.9	.0	10.0
Q. Sunset EBAX	*	-750	-9	-150	-9	* AG	1461	1.9	.0	13.5
R. Sunset EBDX	*	150	-9	750	-9	* AG	1747	1.9	.0	10.0
S. Sunset WBAX	*	750	7	150	7	* AG	1448	1.9	.0	10.0
T. Sunset WBDX	*	-150	7	-750	7	* AG	1383	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-07 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-8	14	1.8
3. SW	*	-8	-17	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	14	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	5	-150	5	0	* AG	767	3.9	.0	10.0
B. Doheny NBD	*	5	0	5	150	* AG	891	3.2	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	35	3.7	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	679	3.7	.0	10.0
E. Doheny SBD	*	-5	0	-5	-150	* AG	800	2.7	.0	10.0
F. Doheny SBL	*	-5	150	0	0	* AG	6	3.7	.0	10.0
G. Elevado EBA	*	-150	-2	0	-2	* AG	145	3.0	.0	10.0
H. Elevado EBD	*	0	-2	150	-2	* AG	27	2.1	.0	10.0
I. Elevado EBL	*	-150	-2	0	0	* AG	120	3.8	.0	10.0
J. Elevado WBA	*	150	2	0	2	* AG	12	3.0	.0	10.0
K. Elevado WBD	*	0	2	-150	2	* AG	49	2.1	.0	10.0
L. Elevado WBL	*	150	2	0	0	* AG	3	3.8	.0	10.0
M. Doheny NBAX	*	5	-750	5	-150	* AG	802	1.9	.0	10.0
N. Doheny NBDX	*	5	150	5	750	* AG	891	1.9	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	685	1.9	.0	10.0
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	800	1.9	.0	10.0
Q. Elevado EBAX	*	-750	-2	-150	-2	* AG	265	2.0	.0	10.0
R. Elevado EBDX	*	150	-2	750	-2	* AG	27	2.0	.0	10.0
S. Elevado WBAX	*	750	2	150	2	* AG	15	2.0	.0	10.0
T. Elevado WBDX	*	-150	2	-750	2	* AG	49	2.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-08 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	12	-8	1.8
2. NW	*	-12	8	1.8
3. SW	*	-12	-8	1.8
4. NE	*	12	8	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	12	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                      VS= .0 CM/S  
 MIXH= 1000. M                      AMB= .0 PPM  
 SIGTH= 10. DEGREES              TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	2	-150	2	0	* AG	674	3.1	.0	10.0
B. Doheny NBD	*	2	0	2	150	* AG	597	2.0	.0	10.0
C. Doheny NBL	*	2	-150	0	0	* AG	36	3.7	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	589	3.0	.0	11.8
E. Doheny SBD	*	-5	0	-5	-150	* AG	694	2.0	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	239	3.9	.0	10.0
G. Santa Mo EBA	*	-150	-11	0	-11	* AG	1929	4.0	.0	17.0
H. Santa Mo EBD	*	0	-11	150	-11	* AG	2340	3.6	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	84	3.7	.0	10.0
J. Santa Mo WBA	*	150	7	0	7	* AG	1334	3.7	.0	10.0
K. Santa Mo WBD	*	0	7	-150	7	* AG	1418	2.7	.0	10.0
L. Santa Mo WBL	*	150	5	0	0	* AG	164	3.7	.0	10.0
M. Doheny NBAX	*	2	-750	2	-150	* AG	710	1.9	.0	10.0
N. Doheny NBDX	*	2	150	2	750	* AG	597	1.9	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	828	1.9	.0	11.8
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	694	1.9	.0	10.0
Q. Santa M EBAX	*	-750	-11	-150	-11	* AG	2013	1.9	.0	17.0
R. Santa M EBDX	*	150	-11	750	-11	* AG	2340	1.9	.0	10.0
S. Santa M WBAX	*	750	7	150	7	* AG	1498	1.9	.0	10.0
T. Santa M WBDX	*	-150	7	-750	7	* AG	1418	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-09 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	8	-17	1.8
2. NW	*	-13	14	1.8
3. SW	*	-12	-21	1.8
4. NE	*	8	14	1.8
5. ES mdbl	*	150	-17	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	8	-150	1.8
10. NW mdbl	*	-13	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	8	150	1.8
13. ES blk	*	600	-17	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	8	-600	1.8
18. NW blk	*	-13	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	8	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	*	.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-10 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-14	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-14	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016np-10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016np-11 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Foothill NBA	*	0	-150	0	0	* AG	0	1.9	.0	10.0
B. Foothill NBD	*	0	0	0	150	* AG	91	2.2	.0	10.0
C. Foothill NBL	*	2	-150	0	0	* AG	0	1.9	.0	10.0
D. Foothill SBA	*	-2	150	-2	0	* AG	24	3.4	.0	10.0
E. Foothill SBD	*	-2	0	-2	-150	* AG	0	1.9	.0	10.0
F. Foothill SBL	*	-2	150	0	0	* AG	27	3.7	.0	10.0
G. Santa Mo EBA	*	-150	-7	0	-7	* AG	2465	3.9	.0	10.0
H. Santa Mo EBD	*	0	-7	150	-7	* AG	2492	2.8	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	28	3.8	.0	10.0
J. Santa Mo WBA	*	150	4	0	4	* AG	2061	3.9	.0	10.0
K. Santa Mo WBD	*	0	4	-150	4	* AG	2022	2.8	.0	10.0
L. Santa Mo WBL	*	150	2	0	0	* AG	0	2.0	.0	10.0
M. Foothil NBAX	*	0	-750	0	-150	* AG	0	1.9	.0	10.0
N. Foothil NBDX	*	0	150	0	750	* AG	91	1.9	.0	10.0
O. Foothil SBAX	*	-2	750	-2	150	* AG	51	1.9	.0	10.0
P. Foothil SBDX	*	-2	-150	-2	-750	* AG	0	1.9	.0	10.0
Q. Santa M EBAX	*	-750	-7	-150	-7	* AG	2493	2.0	.0	10.0
R. Santa M EBDX	*	150	-7	750	-7	* AG	2492	2.0	.0	10.0
S. Santa M WBAX	*	750	4	150	4	* AG	2061	2.0	.0	10.0
T. Santa M WBDX	*	-150	4	-750	4	* AG	2022	2.0	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016np-11 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	7	-14	1.8
2. NW	*	-8	10	1.8
3. SW	*	-8	-14	1.8
4. NE	*	7	10	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	10	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	10	1.8
9. SE mdbl	*	7	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	7	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	10	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	10	1.8
17. SE blk	*	7	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	7	600	1.8





**MELROSE TRIANGLE MIXED-USE PROJECT**  
**AIR QUALITY CO HOT SPOT ANALYSIS**  
**CALINE4 MODEL PRINTOUTS**  
**OPENING YEAR (2016) WITH PROJECT SCENARIO**





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-01 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-19	1.8
2. NW	*	-17	19	1.8
3. SW	*	-15	-21	1.8
4. NE	*	17	21	1.8
5. ES mdbl	*	150	-19	1.8
6. WN mdbl	*	-150	19	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	21	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	17	150	1.8
13. ES blk	*	600	-19	1.8
14. WN blk	*	-600	19	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	21	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	17	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-01 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.1	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.5
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
17. SE blk	*	.0	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016wp-02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH (G/MI)	(M)	(M)	
A. La Ciene NBA	*	9	-150	9	0	* AG	1606	3.9	.0	13.5
B. La Ciene NBD	*	9	0	9	150	* AG	1555	2.7	.0	10.0
C. La Ciene NBL	*	5	-150	0	0	* AG	175	3.7	.0	10.0
D. La Ciene SBA	*	-9	150	-9	0	* AG	1052	3.4	.0	13.5
E. La Ciene SBD	*	-9	0	-9	-150	* AG	1340	2.3	.0	10.0
F. La Ciene SBL	*	-5	150	0	0	* AG	83	3.7	.0	10.0
G. Melrose EBA	*	-150	-9	0	-9	* AG	1153	3.4	.0	13.5
H. Melrose EBD	*	0	-9	150	-9	* AG	1402	2.7	.0	10.0
I. Melrose EBL	*	-150	-5	0	0	* AG	235	3.9	.0	10.0
J. Melrose WBA	*	150	9	0	9	* AG	628	3.1	.0	13.5
K. Melrose WBD	*	0	9	-150	9	* AG	877	2.1	.0	10.0
L. Melrose WBL	*	150	5	0	0	* AG	242	3.9	.0	10.0
M. La Cien NBAX	*	9	-750	9	-150	* AG	1781	1.9	.0	13.5
N. La Cien NBDX	*	9	150	9	750	* AG	1555	1.9	.0	10.0
O. La Cien SBAX	*	-9	750	-9	150	* AG	1135	1.9	.0	13.5
P. La Cien SBDX	*	-9	-150	-9	-750	* AG	1340	1.9	.0	10.0
Q. Melrose EBAX	*	-750	-9	-150	-9	* AG	1388	1.9	.0	13.5
R. Melrose EBDX	*	150	-9	750	-9	* AG	1402	1.9	.0	10.0
S. Melrose WBAX	*	750	9	150	9	* AG	870	1.9	.0	13.5
T. Melrose WBDX	*	-150	9	-750	9	* AG	877	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-02 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-15	1.8
2. NW	*	-17	15	1.8
3. SW	*	-15	-17	1.8
4. NE	*	15	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-02 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-03 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	17	-14	1.8
2. NW	*	-17	14	1.8
3. SW	*	-15	-14	1.8
4. NE	*	15	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	15	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-03 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-04 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	12	-15	1.8
2. NW	*	-10	15	1.8
3. SW	*	-10	-17	1.8
4. NE	*	12	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-10	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-10	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	12	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-04 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
2. NW	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
5. ES mdbl	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.5
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0





CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-05 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-8	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-8	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-05 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016wp-06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Robertso NBA	*	7	-150	7	0	* AG	693	4.0	.0	10.0
B. Robertso NBD	*	7	0	7	150	* AG	799	3.9	.0	10.0
C. Robertso NBL	*	5	-150	0	0	* AG	67	3.8	.0	10.0
D. Robertso SBA	*	-5	150	-5	0	* AG	546	4.0	.0	10.0
E. Robertso SBD	*	-5	0	-5	-150	* AG	555	3.8	.0	10.0
F. Robertso SBL	*	-5	150	0	0	* AG	76	3.8	.0	10.0
G. Beverly EBA	*	-150	-9	0	-9	* AG	1049	3.0	.0	13.5
H. Beverly EBD	*	0	-9	150	-9	* AG	1209	2.1	.0	10.0
I. Beverly EBL	*	-150	-5	0	0	* AG	155	3.7	.0	10.0
J. Beverly WBA	*	150	9	0	9	* AG	1032	3.0	.0	13.5
K. Beverly WBD	*	0	9	-150	9	* AG	1144	2.0	.0	10.0
L. Beverly WBL	*	150	5	0	0	* AG	89	3.7	.0	10.0
M. Roberts NBAX	*	7	-750	7	-150	* AG	760	2.0	.0	10.0
N. Roberts NBDX	*	7	150	7	750	* AG	799	2.0	.0	10.0
O. Roberts SBAX	*	-5	750	-5	150	* AG	622	2.0	.0	10.0
P. Roberts SBDX	*	-5	-150	-5	-750	* AG	555	2.0	.0	10.0
Q. Beverly EBAX	*	-750	-9	-150	-9	* AG	1204	1.9	.0	13.5
R. Beverly EBDX	*	150	-9	750	-9	* AG	1209	1.9	.0	10.0
S. Beverly WBAX	*	750	9	150	9	* AG	1121	1.9	.0	13.5
T. Beverly WBDX	*	-150	9	-750	9	* AG	1144	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-06 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-12	15	1.8
3. SW	*	-12	-17	1.8
4. NE	*	14	17	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	15	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	15	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-06 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016wp-07 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	(G/MI)	(M)	(M)	
A. Doheny NBA	*	7	-150	7	0	* AG	335	3.8	.0	10.0
B. Doheny NBD	*	7	0	7	150	* AG	168	2.2	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	213	3.7	.0	10.0
D. Doheny SBA	*	-2	150	-2	0	* AG	115	3.4	.0	10.0
E. Doheny SBD	*	-2	0	-2	-150	* AG	416	3.1	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	146	3.7	.0	10.0
G. Sunset EBA	*	-150	-9	0	-9	* AG	1450	3.5	.0	13.5
H. Sunset EBD	*	0	-9	150	-9	* AG	1747	2.4	.0	10.0
I. Sunset EBL	*	-150	-5	0	0	* AG	17	3.7	.0	10.0
J. Sunset WBA	*	150	7	0	7	* AG	1216	3.2	.0	10.0
K. Sunset WBD	*	0	7	-150	7	* AG	1393	2.1	.0	10.0
L. Sunset WBL	*	150	5	0	0	* AG	232	3.9	.0	10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	548	1.9	.0	10.0
N. Doheny NBDX	*	7	150	7	750	* AG	168	1.9	.0	10.0
O. Doheny SBAX	*	-2	750	-2	150	* AG	261	1.9	.0	10.0
P. Doheny SBDX	*	-2	-150	-2	-750	* AG	416	1.9	.0	10.0
Q. Sunset EBAX	*	-750	-9	-150	-9	* AG	1467	1.9	.0	13.5
R. Sunset EBDX	*	150	-9	750	-9	* AG	1747	1.9	.0	10.0
S. Sunset WBAX	*	750	7	150	7	* AG	1448	1.9	.0	10.0
T. Sunset WBDX	*	-150	7	-750	7	* AG	1393	1.9	.0	10.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-07 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-15	1.8
2. NW	*	-8	14	1.8
3. SW	*	-8	-17	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-15	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-15	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	14	600	1.8







CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-08 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	12	-8	1.8
2. NW	*	-12	8	1.8
3. SW	*	-12	-8	1.8
4. NE	*	12	8	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	12	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-08 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016wp-09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                      VS= .0 CM/S  
 MIXH= 1000. M                      AMB= .0 PPM  
 SIGTH= 10. DEGREES              TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Doheny NBA	*	2	-150	2	0	* AG	675	3.1	.0	10.0
B. Doheny NBD	*	2	0	2	150	* AG	616	2.0	.0	10.0
C. Doheny NBL	*	2	-150	0	0	* AG	36	3.7	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	589	3.0	.0	11.8
E. Doheny SBD	*	-5	0	-5	-150	* AG	701	2.0	.0	10.0
F. Doheny SBL	*	-2	150	0	0	* AG	255	3.9	.0	10.0
G. Santa Mo EBA	*	-150	-11	0	-11	* AG	1944	4.0	.0	17.0
H. Santa Mo EBD	*	0	-11	150	-11	* AG	2372	3.6	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	84	3.7	.0	10.0
J. Santa Mo WBA	*	150	7	0	7	* AG	1388	3.7	.0	10.0
K. Santa Mo WBD	*	0	7	-150	7	* AG	1453	2.7	.0	10.0
L. Santa Mo WBL	*	150	5	0	0	* AG	171	3.7	.0	10.0
M. Doheny NBAX	*	2	-750	2	-150	* AG	711	1.9	.0	10.0
N. Doheny NBDX	*	2	150	2	750	* AG	616	1.9	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	844	1.9	.0	11.8
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	701	1.9	.0	10.0
Q. Santa M EBAX	*	-750	-11	-150	-11	* AG	2028	1.9	.0	17.0
R. Santa M EBDX	*	150	-11	750	-11	* AG	2372	1.9	.0	10.0
S. Santa M WBAX	*	750	7	150	7	* AG	1559	1.9	.0	10.0
T. Santa M WBDX	*	-150	7	-750	7	* AG	1453	1.9	.0	10.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-09 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	8	-17	1.8
2. NW	*	-13	14	1.8
3. SW	*	-12	-21	1.8
4. NE	*	8	14	1.8
5. ES mdbl	*	150	-17	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-21	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	8	-150	1.8
10. NW mdbl	*	-13	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	8	150	1.8
13. ES blk	*	600	-17	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-21	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	8	-600	1.8
18. NW blk	*	-13	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	8	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-09 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
2. NW	*	.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0
17. SE blk	*	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016wp-10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	(G/MI)	(M)	(M)	
A. Doheny NBA	*	7	-150	7	0	* AG	787	4.0	.0	10.0
B. Doheny NBD	*	7	0	7	150	* AG	772	3.9	.0	10.0
C. Doheny NBL	*	5	-150	0	0	* AG	123	3.7	.0	10.0
D. Doheny SBA	*	-5	150	-5	0	* AG	575	4.0	.0	10.0
E. Doheny SBD	*	-5	0	-5	-150	* AG	797	3.9	.0	10.0
F. Doheny SBL	*	-5	150	0	0	* AG	108	3.7	.0	10.0
G. Beverly EBA	*	-150	-7	0	-7	* AG	901	2.9	.0	10.0
H. Beverly EBD	*	0	-7	150	-7	* AG	1101	2.0	.0	10.0
I. Beverly EBL	*	-150	-5	0	0	* AG	95	3.7	.0	10.0
J. Beverly WBA	*	150	7	0	7	* AG	864	2.9	.0	10.0
K. Beverly WBD	*	0	7	-150	7	* AG	946	2.0	.0	10.0
L. Beverly WBL	*	150	5	0	0	* AG	163	3.7	.0	10.0
M. Doheny NBAX	*	7	-750	7	-150	* AG	910	1.9	.0	10.0
N. Doheny NBDX	*	7	150	7	750	* AG	772	1.9	.0	10.0
O. Doheny SBAX	*	-5	750	-5	150	* AG	683	1.9	.0	10.0
P. Doheny SBDX	*	-5	-150	-5	-750	* AG	797	1.9	.0	10.0
Q. Beverly EBAX	*	-750	-7	-150	-7	* AG	996	1.9	.0	10.0
R. Beverly EBDX	*	150	-7	750	-7	* AG	1101	1.9	.0	10.0
S. Beverly WBAX	*	750	7	150	7	* AG	1027	1.9	.0	10.0
T. Beverly WBDX	*	-150	7	-750	7	* AG	946	1.9	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-10 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	14	-14	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-14	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Melrose Triangle  
 RUN: 2016wp-10 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK											
		(PPM)											
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.1
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Melrose Triangle  
 RUN: 2016wp-11 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 488. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 10.0 DEGREE (C)

II. LINK VARIABLES

LINK	*	LINK COORDINATES (M)				*	EF	H	W	
DESCRIPTION	*	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)
A. Foothill NBA	*	0	-150	0	0	* AG	0	1.9	.0	10.0
B. Foothill NBD	*	0	0	0	150	* AG	91	2.2	.0	10.0
C. Foothill NBL	*	2	-150	0	0	* AG	0	1.9	.0	10.0
D. Foothill SBA	*	-2	150	-2	0	* AG	24	3.4	.0	10.0
E. Foothill SBD	*	-2	0	-2	-150	* AG	0	1.9	.0	10.0
F. Foothill SBL	*	-2	150	0	0	* AG	27	3.7	.0	10.0
G. Santa Mo EBA	*	-150	-7	0	-7	* AG	2480	3.9	.0	10.0
H. Santa Mo EBD	*	0	-7	150	-7	* AG	2507	2.8	.0	10.0
I. Santa Mo EBL	*	-150	-5	0	0	* AG	28	3.8	.0	10.0
J. Santa Mo WBA	*	150	4	0	4	* AG	2096	3.9	.0	10.0
K. Santa Mo WBD	*	0	4	-150	4	* AG	2057	2.8	.0	10.0
L. Santa Mo WBL	*	150	2	0	0	* AG	0	2.0	.0	10.0
M. Foothil NBAX	*	0	-750	0	-150	* AG	0	1.9	.0	10.0
N. Foothil NBDX	*	0	150	0	750	* AG	91	1.9	.0	10.0
O. Foothil SBAX	*	-2	750	-2	150	* AG	51	1.9	.0	10.0
P. Foothil SBDX	*	-2	-150	-2	-750	* AG	0	1.9	.0	10.0
Q. Santa M EBAX	*	-750	-7	-150	-7	* AG	2508	2.0	.0	10.0
R. Santa M EBDX	*	150	-7	750	-7	* AG	2507	2.0	.0	10.0
S. Santa M WBAX	*	750	4	150	4	* AG	2096	2.0	.0	10.0
T. Santa M WBDX	*	-150	4	-750	4	* AG	2057	2.0	.0	10.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Melrose Triangle  
RUN: 2016wp-11 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
	*	X	Y	Z
1. SE	*	7	-14	1.8
2. NW	*	-8	10	1.8
3. SW	*	-8	-14	1.8
4. NE	*	7	10	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	10	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	10	1.8
9. SE mdbl	*	7	-150	1.8
10. NW mdbl	*	-8	150	1.8
11. SW mdbl	*	-8	-150	1.8
12. NE mdbl	*	7	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	10	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	10	1.8
17. SE blk	*	7	-600	1.8
18. NW blk	*	-8	600	1.8
19. SW blk	*	-8	-600	1.8
20. NE blk	*	7	600	1.8





**APPENDIX D**

**HEALTH RISK ASSESSMENT SUPPORT DATA**

## Diesel Toxics Analysis

There are currently no federal project-level requirements for air toxics analysis, and CEQA only requires a consideration of the risks from toxics, with the South Coast Air Quality Management District (SCAQMD) providing the *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003) for guidance. The SCAQMD has established a maximum individual cancer risk significance threshold of 10 in 1 million ( $1.0 \times 10^{-5}$ ) (assumes the project will be constructed with best-available control technology for toxics [T-BACT]) and a noncarcinogenic hazard index of 1.0.

As described in Section 5.5.1, the only toxic air pollution emissions in any significant quantity associated with the construction and operation of the project occur from diesel-powered equipment exhaust. Other toxic substances potentially used on site would be controlled through compliance with State and federal handling regulations. According to California Air Resources Board (ARB),<sup>1</sup> when conducting a health risk assessment (HRA), the surrogate for whole diesel exhaust is diesel PM, and is used as the basis for the potential risk calculations. When conducting an HRA, the potential cancer risk from inhalation exposure to diesel PM will outweigh the potential noncancer health impacts. Therefore, inhalation cancer risk is required for every HRA. When comparing whole diesel exhaust to speciated diesel exhaust (e.g., PAHs, metals), potential cancer risk from inhalation exposure to whole diesel exhaust will outweigh the multipathway cancer risk from the speciated components. For this reason, there will be few situations where an analysis of multipathway risk is necessary.<sup>2</sup> To estimate the potential cancer risk associated with project-related diesel engine exhaust, a dispersion model is used to translate an emission rate from a source location to a concentration at a receptor location of interest. Dispersion modeling varies from the simpler, more conservative screening-level analysis to the more complex and refined detailed analysis. This calculation was performed using the EPA-approved SCREEN3 computer model. This model provides conservative estimates of concentrations considering site and source geometry, source strength, distance to receptor, and building wake effects on plume distribution. The SCREEN3 model was developed to provide an easy-to-use method of obtaining pollutant concentration estimates where upper-bound estimates are required or where meteorological data is unavailable. It is a useful tool in proving that an impact is not significant (i.e., if a screening-level analysis demonstrates an impact not significant, its conservative nature provides confidence in this conclusion and demonstrates that more detailed modeling is unnecessary). Screening-level modeling is less useful in concluding that an impact is significant. When a screening-level analysis indicates a significant impact, this conclusion normally points to the need for a more sophisticated (and less conservative) method of analysis using a model such as AERMOD.

These two screening-level HRAs (construction and operational) were conducted as recommended in the OEHHA Guidelines and by the ARB (HARP Model Documentation, Appendix K, Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines, ARB, Feb 2005). Both consist of the same steps including:

- 1) Determining the  $PM_{10}$  emission factor.
- 2) Determining the  $PM_{10}$  emission rate.
- 3) Determining the  $PM_{10}$  concentration at location(s) of interest.
- 4) Translating the  $PM_{10}$  concentration(s) to health risk values.
- 5) Comparing the health risk values to thresholds and determining significance.

For both the construction and operational HRAs, the only health affects examined are long-term (70-year exposure) carcinogenic and chronic. This is because the only toxic air contaminant included in these HRAs is diesel particulate. The short-term construction health impacts are those associated with diesel construction

<sup>1</sup> HARP Model Documentation, Appendix K, *Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Engines*, ARB, <http://www.arb.ca.gov/toxics/harp/docs/userguide/appendixK.pdf>, February 2005.

<sup>2</sup> OEHHA, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, August 2003, Appendix D, *Risk Assessment Procedures to Evaluate Particulate Emissions from Diesel-Fueled Vehicles*, Section B.

equipment exhaust and long-term operational health impacts are those associated with project-related diesel truck deliveries to the proposed project site. The specifics of how the construction diesel PM<sub>10</sub> emissions rates were determined are straightforward and are described in Section 5.5.1.

The specifics of how the operational diesel PM<sub>10</sub> emissions rates were determined are more involved and are described here. In order to predict the impacts on human health by diesel-powered trucks that perform delivery services for the project operators, the first step is to characterize the diesel truck delivery emissions. The number of deliveries that are considered normal was first estimated, then categorized as either 2-axle delivery trucks (light and medium sized trucks) or semi-trailer and fuel tanker trucks (heavy-duty trucks). The idling times of the trucks were estimated by assuming that all trucks will comply with State mandated 5-minute idling maximum per stop and that each delivery would consist of two “stops”. While deliveries could occur 24 hours per day and seven days a week, using 12 hours per day and six days per week results in a more conservative estimate of the PM<sub>10</sub> emission rate. This is because while total truck deliveries remains the same, the amount of time the deliveries occur in is less so that the risk calculated is higher than if distributed over a longer period of time. The ARB model, EMFAC2007, was used for emissions factors for trucks both idling and operating to determine the total emissions of diesel exhaust particulate from the project.

The results of these analyses are summarized in Table C-1.

**Table C-1: Delivery Truck Activity and Diesel Particulate Emissions**

	<b>Deliveries per week</b>	<b>Minutes idling per delivery</b>	<b>No. of hours per day deliveries occur</b>	<b>No. of days per week that deliveries occur</b>	<b>PM<sub>10</sub> Emission Factor<sup>1</sup> (g/hr)</b>	<b>PM<sub>10</sub> Emission rate (g/s)</b>
2-axle delivery trucks	20	10	12	7	0.14	1.54E-06
Semi-trailer and tanker trucks	35	10	12	7	0.14	2.70E-06
<b>Total:</b>						4.24E-06

Source: LSA Associates, Inc., April 2012.

For the construction HRA, since the construction equipment operates throughout the site, the emissions were modeled using an area source type. Table C-2 shows the SCREEN3 input parameters used. For the operational HRA, since no specifics on delivery truck movement on site were available, for the purposes of this analysis, all diesel truck exhaust was modeled as if it came from a single spot. This technique was used because it is not known how the trucks will travel on site and because it generates health-risk values that are more conservative than the reality of spreading the truck emissions over the site. The SCREEN3 input parameters are shown in Table C-2. Stack height and diameter were based on observations of many trucks and approximating typical dimensions. Exhaust temperature and velocity were taken from ARB guidance.<sup>2</sup>

<sup>1</sup> Idling diesel exhaust emission factors from ARB study: Public Hearing to Consider the Adoption of Heavy-Duty Vehicle Emission Reduction Requirements, Appendix C, Table C-4, January 2004.

<sup>2</sup> Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, Appendix VII, ARB, October 2000

**Table C-2: SCREEN3 Input Parameters**

Simple Terrain Inputs	Construction	Operational
Source Type	Area	Point
Emission Rate (G/S)	1.0	1.0
Stack/Source Height (M)	2.0	2.0
Stack Inside Diameter (M)	N/A	0.076
Stack Exit Velocity (M/S)	N/A	45.4
Stack Gas Exit Temp. (°K)	N/A	600
Ambient Air Temp. (°K)	N/A	293
Length of Larger Side (M)	110	N/A
Length of Smaller Side (M)	110	N/A
Receptor Height (M)	0	0
Urban/Rural Option	Urban	Urban

Source: LSA Associates, Inc. 2012.

Table C-3 shows the SCREEN3 PM<sub>10</sub> concentrations at a range of locations using the PM<sub>10</sub> emission rate from the attached worksheet for construction and Table C-1 for operations. The SCREEN3 model output is attached to this Appendix.

**Table C-3: SCREEN3 Modeling Results**

Distance to Nearest Residence (m)	Construction PM <sub>10</sub> Concentrations (µg/m <sup>3</sup> )		Operational PM <sub>10</sub> Concentrations (µg/m <sup>3</sup> )	
	1-Hr	Annual	1-Hr	Annual
60	12.85	0.21	6.32E-03	5.06E-04
70	13.31	0.21	5.55E-03	4.44E-04
80	13.66	0.22	5.10E-03	4.08E-04
90	12.42	0.20	4.58E-03	3.67E-04
100	10.19	0.16	4.09E-03	3.27E-04
110	12.85	0.21	3.64E-03	5.06E-04

Source: LSA Associates, Inc. 2012.

The PM<sub>10</sub> concentrations are translated to the health risk values shown in Table C-4 using the OEHHA methodology as described in the following equations:

$$\text{Inhalation cancer risk} = (\text{C}_{\text{air}} * \text{DBR} * \text{A} * \text{EF} * \text{ED} * 1 \times 10^{-6}) / \text{AT} * \text{Inhalation Cancer Potency Factor}.$$

Where:

	C <sub>air</sub>	Concentration of PM <sub>10</sub> in air	
DBR	303	Daily breathing rate	(L/kg-day)
A	1	Inhalation absorption factor	
EF	250	Construction Exposure frequency	(days/yr)
EF	350	Operational Exposure frequency	(days/yr)
ED	33	Construction Exposure duration	(months)
ED	70	Operational Exposure duration	(years)
AT	25,550	Avg. time period of exposure	(days)
Diesel PM <sub>10</sub>	1.1	Inhalation Cancer Potency factor	(mg/kg-d) <sup>-1</sup>

Source: OEHHA Guidelines, August 2003.

And

Inhalation chronic risk =  $C_{air} / \text{Inhalation Chronic REL}$

Where the Inhalation Chronic REL = 5.0

**Table C-4: Proposed Project Health Risks**

Distance to Nearest Residence (m)	Construction		Operational	
	Inhalation Cancer Risk (No. in One Million)	Inhalation Chronic Risk (Hazard Index)	Inhalation Cancer Risk (No. in One Million)	Inhalation Chronic Risk (Hazard Index)
60	1.8	0.041	0.16	0.00010
70	1.9	0.043	0.14	0.00009
80	2.0	0.044	0.13	0.00008
90	1.8	0.040	0.12	0.000073
100	1.5	0.033	0.10	0.000065
<b>Thresholds</b>	<b>10</b>	<b>1.0</b>	<b>10</b>	<b>1.0</b>

Source: LSA Associates, Inc. 2007.

For this proposed project, the distance from the loading area to the nearest residences is approximately 60 meters. As Table C-4 shows, the inhalation health risk predicted at the nearest residences (approximately 200 feet or 60 meters away) using the very conservative screening analysis techniques described above results in a maximum of 1.8 in 1 million during construction and 0.20 in 1 million during operations, both under the 10 in 1 million threshold. The peak chronic health risks are all well below the threshold of 1.0. Therefore, emissions from both construction and vehicular traffic associated with operations of the proposed project will not create any significant adverse health risk.



## Screening Construction Health Risk From Diesel Exhaust Particulate Worksheet

Construction Parameters

33	months duration	
7	hrs/day	
5	days/week	
50	weeks/year	3.9 peak daily lbs/day (from report)
2.3	lbs/day (weighted average)	10% %of time at peak rate
1,061	gm/day	
3	acres	4047 sq m/acre

Inhalation cancer risk =  $( (C_{air} * DBR * A * EF * ED * 1 \times 10^6) / AT ) * \text{Inhalation Cancer Potency factor}$

**Health Risk Parameters**

DBR	303	Daily breathing rate	(L/kg-day)
A	1	Inhalation absorption factor	
EF	250	Exposure frequency	(days/yr)
ED		Exposure duration	(years)
AT	25,550	Avg. time period of exposure	(days)
Diesel PM <sub>10</sub>	1.1	Inhalation Cancer Potency factor	(mg/kg-d) <sup>-1</sup>
Diesel PM <sub>10</sub>	5.0	Inhalation Chronic REL	(ug/m <sup>3</sup> )

SCREEN3 Input parameters:

SIMPLE TERRAIN INPUTS:		
SOURCE TYPE	=	AREA
EMISSION RATE (G/(S-M**2))	=	1.00000
SOURCE HEIGHT (M)	=	2.0000
LENGTH OF LARGER SIDE (M)	=	110.0000
LENGTH OF SMALLER SIDE (M)	=	110.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.		
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.		

1hr-An Scaler	0.08	Source:EPA-for continuous emissions
Const. occurs	1,750	hours/year

Construction Health Risks

Dist (m)	Unitized	Scaled Concentrations		Inhalation	Inhalation
	1-Hr conc.	1-Hr	Annual	Cancer Risk	Chronic
	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	# in a million	Risk Factor
60	1.27E+07	12.85	0.21	1.8	0.041
70	1.32E+07	13.31	0.21	1.9	0.043
80	1.35E+07	13.66	0.22	2.0	0.044
90	1.23E+07	12.42	0.20	1.8	0.040
100	1.01E+07	10.19	0.16	1.5	0.033

09/21/07  
11:52:56

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 96043 \*\*\*

Construction PM10

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA  
EMISSION RATE (G/(S-M\*\*2)) = 1.00000  
SOURCE HEIGHT (M) = 2.0000  
LENGTH OF LARGER SIDE (M) = 110.0000  
LENGTH OF SMALLER SIDE (M) = 110.0000  
RECEPTOR HEIGHT (M) = .0000  
URBAN/RURAL OPTION = URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = .000 M\*\*4/S\*\*3; MOM. FLUX = .000 M\*\*4/S\*\*2.

\*\*\* STABILITY CLASS 4 ONLY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
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\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
30	1.13E+07	4	1	1	320	2	45
40	1.18E+07	4	1	1	320	2	45
50	1.23E+07	4	1	1	320	2	45
60	1.27E+07	4	1	1	320	2	45
70	1.32E+07	4	1	1	320	2	36
80	1.35E+07	4	1	1	320	2	45
90	1.23E+07	4	1	1	320	2	45
100	1.01E+07	4	1	1	320	2	45
200	3.34E+06	4	1	1	320	2	45
300	1.76E+06	4	1	1	320	2	44
400	1.09E+06	4	1	1	320	2	42
500	7.47E+05	4	1	1	320	2	42
600	5.45E+05	4	1	1	320	2	43
700	4.18E+05	4	1	1	320	2	44
800	3.32E+05	4	1	1	320	2	36

900	2.71E+05	4	1	1	320	2	41
1000	2.26E+05	4	1	1	320	2	31

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 30. M:

82. .1353E+08 4 1.0 1.0 320.0 2.00 45.

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\*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*

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CALCULATION	MAX CONC	DIST TO	TERRAIN
PROCEDURE	(UG/M**3)	MAX (M)	HT (M)

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SIMPLE TERRAIN	.1353E+08	82.	0.

\*\*\*\*\*

\*\* REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS \*\*

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02/01/07  
11:41:27

\*\*\* SCREEN3 MODEL RUN \*\*\*  
\*\*\* VERSION DATED 96043 \*\*\*

Diesel Truck Exhaust

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT  
EMISSION RATE (G/S) = 1.00000  
STACK HEIGHT (M) = 2.0000  
STK INSIDE DIAM (M) = .0760  
STK EXIT VELOCITY (M/S)= 45.4000  
STK GAS EXIT TEMP (K) = 600.0000  
AMBIENT AIR TEMP (K) = 293.0000  
RECEPTOR HEIGHT (M) = .0000  
URBAN/RURAL OPTION = URBAN  
BUILDING HEIGHT (M) = .0000  
MIN HORIZ BLDG DIM (M) = .0000  
MAX HORIZ BLDG DIM (M) = .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.  
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .329 M\*\*4/S\*\*3; MOM. FLUX = 1.453 M\*\*4/S\*\*2.

\*\*\* FULL METEOROLOGY \*\*\*

\*\*\*\*\*  
\*\*\* SCREEN AUTOMATED DISTANCES \*\*\*  
\*\*\*\*\*

\*\*\* TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES \*\*\*

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
15	2572	3	4.5	4.5	1440	4.3	3.33	3.04	NO
20	2483	4	5	5	1600	4.07	3.22	2.83	NO
25	2409	4	4	4	1280	4.59	4.05	3.56	NO
30	2267	4	3	3	960	5.45	4.87	4.3	NO
35	2110	4	2.5	2.5	800	6.14	5.69	5.02	NO
40	1951	4	2	2	640	7.18	6.52	5.76	NO
45	1822	4	2	2	640	7.18	7.29	6.43	NO
50	1684	4	1.5	1.5	480	8.9	8.16	7.22	NO
60	1490	4	1.5	1.5	480	8.9	9.69	8.56	NO
70	1307	4	1	1	320	12.35	11.44	10.14	NO
80	1201	4	1	1	320	12.35	12.94	11.46	NO
90	1080	4	1	1	320	12.35	14.45	12.78	NO
100	963.3	4	1	1	320	12.35	15.97	14.11	NO

200	434.3	6	1	1	10000	19.03	21.72	14.85	NO
300	319.8	6	1	1	10000	19.03	31.56	20.52	NO
400	228.6	6	1	1	10000	19.03	41.14	25.76	NO
500	169.9	6	1	1	10000	19.03	50.44	30.63	NO
600	131.5	6	1	1	10000	19.03	59.47	35.16	NO
700	105.3	6	1	1	10000	19.03	68.23	39.41	NO
800	86.77	6	1	1	10000	19.03	76.75	43.42	NO
900	73.1	6	1	1	10000	19.03	85.03	47.22	NO
1000	62.72	6	1	1	10000	19.03	93.09	50.83	NO
1100	54.63	6	1	1	10000	19.03	100.95	54.28	NO
1200	48.2	6	1	1	10000	19.03	108.61	57.58	NO
1300	42.98	6	1	1	10000	19.03	116.09	60.75	NO
1400	38.68	6	1	1	10000	19.03	123.39	63.8	NO
1500	35.08	6	1	1	10000	19.03	130.53	66.74	NO
1600	32.04	6	1	1	10000	19.03	137.52	69.59	NO
1700	29.44	6	1	1	10000	19.03	144.36	72.35	NO
1800	27.2	6	1	1	10000	19.03	151.05	75.02	NO
1900	25.25	6	1	1	10000	19.03	157.61	77.62	NO
2000	23.54	6	1	1	10000	19.03	164.05	80.15	NO
2100	22.02	6	1	1	10000	19.03	170.36	82.61	NO
2200	20.68	6	1	1	10000	19.03	176.56	85.01	NO
2300	19.48	6	1	1	10000	19.03	182.65	87.36	NO
2400	18.4	6	1	1	10000	19.03	188.63	89.65	NO
2500	17.43	6	1	1	10000	19.03	194.52	91.9	NO
2600	16.55	6	1	1	10000	19.03	200.3	94.09	NO
2700	15.75	6	1	1	10000	19.03	205.99	96.24	NO
2800	15.01	6	1	1	10000	19.03	211.59	98.35	NO
2900	14.34	6	1	1	10000	19.03	217.11	100.42	NO
3000	13.72	6	1	1	10000	19.03	222.54	102.45	NO
3500	11.26	6	1	1	10000	19.03	248.56	112.11	NO
4000	9.517	6	1	1	10000	19.03	272.92	121.05	NO
4500	8.225	6	1	1	10000	19.03	295.86	129.41	NO
5000	7.231	6	1	1	10000	19.03	317.58	137.29	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 15. M:  
15. 2572. 3 4.5 4.5 1440.0 4.30 3.33 3.04 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)  
DWASH=NO MEANS NO BUILDING DOWNWASH USED  
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED  
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED  
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3\*LB

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\*\*\* SUMMARY OF SCREEN MODEL RESULTS \*\*\*  
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CALCULATION MAX CONC DIST TO TERRAIN  
PROCEDURE (UG/M\*\*3) MAX (M) HT (M)  
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SIMPLE TERRAIN 2572. 15. 0.