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## IV. ENVIRONMENTAL IMPACT ANALYSIS

### E. AIR QUALITY

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#### 1. ENVIRONMENTAL SETTING

##### a. Regulatory Setting

In response to longstanding concerns regarding air pollution, Federal, State and local authorities have adopted various rules and regulations requiring evaluation of the impact of a project on air quality and appropriate mitigation for air pollutant emissions. The following discussion focuses on current air quality planning efforts and the responsibilities of the agencies involved in these efforts. A discussion of ambient air quality standards is also provided.

##### (1) Authority for Current Air Quality Planning

A number of plans and policies have been adopted by various agencies that address air quality concerns. Those plans and policies that are relevant to the proposed Project are discussed below.

##### (a) Federal Clean Air Act

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes Federal air quality standards, known as National Ambient Air Quality Standards (NAAQS), and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The City of Los Angeles is included in the South Coast Air Basin (Basin), which has been designated as a non-attainment area for certain pollutants that are regulated under the CAA. By a separate State statute, the South Coast Air Quality Management District (SCAQMD) has been established as the local air pollution control agency for the Basin.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet

interim milestones. The sections of the CAA applicable to the development of the proposed Project include Title I (Non-attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: (1) ozone ( $O_3$ ); (2) nitrogen dioxide ( $NO_2$ ); (3) sulfur dioxide ( $SO_2$ ); (4) particulate matter ( $PM_{10}$ , comprised of airborne particles less than or equal to 10 microns in diameter); (5) carbon monoxide ( $CO$ ); and (6) lead ( $Pb$ ). Table 10 on page 210 lists the NAAQS currently in effect for criteria pollutants. The CAA also sets certain deadlines for meeting the NAAQS within the Basin including: (1)  $O_3$  by the year 2010; (2)  $PM_{10}$  by the year 2006; and (3)  $CO$  by the year 2000.

The Basin fails to meet the National standards for  $O_3$ ,  $PM_{10}$ , and  $CO$  and therefore is considered a Federal non-attainment area for these pollutants. Non-attainment designations are categorized into four levels of severity: moderate; serious; severe; and extreme. In addition, the Basin is classified as being in maintenance for  $NO_2$  since it is currently in attainment and measures are being taken to ensure that it does not go back into non-attainment. Table 10 on page 210 lists the criteria pollutants and Table 11 on page 211 lists the Basin's relative attainment status.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner-burning gasoline and other cleaner-burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides ( $NO_x$ ). In addition, other CAA requirements, including Title V, which requires facility-wide permits for "major stationary sources" may be applicable to the project. Regulatory standards to meet the requirements of Title V have been adopted by the SCAQMD and are set forth in SCAQMD Regulation XXX.

#### **(b) California Clean Air Act**

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and has set standards for other pollutants recognized by the State. California standards tend to be more restrictive than Federal standards and are based on even greater health and welfare concerns. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. The Basin does meet the standards for sulfates, hydrogen sulfide and vinyl chloride, but does not meet the California standard for visibility and is not expected to fully meet the visibility standard until 2010. Table 11 also show the CAAQS currently in effect for criteria pollutants.

Table 10

## AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards <sup>a</sup>	National Standards <sup>a</sup>	Pollutant Health Effects	Major Pollutant Sources
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 Fg/m <sup>3</sup> )	0.12 ppm (235 Fg/m <sup>3</sup> )	High concentrations can directly affect lungs, causing irritation. Common effects are damage to vegetation and cracking of untreated rubber.	Motor vehicles.
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	Interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )		
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Average	—	0.05 ppm (100 Fg/m <sup>3</sup> )	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, railroads.
	1 Hour	0.25 ppm (470 Fg/m <sup>3</sup> )	—		
Sulfur Dioxide (SO <sub>2</sub> )	Annual Average	—	80 Fg/m <sup>3</sup> (0.03 ppm)	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants; destructive to marble, iron and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants and metal processing.
	24 Hour	0.04 ppm (105 Fg/m <sup>3</sup> )	365 Fg/m <sup>3</sup> (0.14 ppm)		
	1 Hour	0.25 ppm (655 Fg/m <sup>3</sup> )	—		
Particulate Matter (PM <sub>10</sub> )	Annual Geometric Mean	30 Fg/m <sup>3</sup>	—	May irritate eyes and respiratory tract. Absorbs sunlight, reducing amount of solar energy reaching the earth. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities such as wind-raised dust and ocean spray.
	24 Hour	50 Fg/m <sup>3</sup>	150 Fg/m <sup>3</sup>		
	Annual Arithmetic Mean	—	50 Fg/m <sup>3</sup>		
Lead (Pb)	30 days	1.5 Fg/m <sup>3</sup>	—	May cause brain and other nervous system damage and digestive problems. Some lead-containing chemicals cause cancer in animals.	Leaded gasoline, paint, smelters, and refineries.
	Calendar Qtr	—	1.5 Fg/m <sup>3</sup>		

<sup>a</sup> ppm = parts per million; Fg/m<sup>3</sup> = micrograms per cubic meter; mg/m<sup>3</sup> = milligrams per cubic meter.

Source: California Air Resources Board, 1996, and the USEPA, 1997.

Table 11

## SOUTH COAST AIR BASIN ATTAINMENT STATUS

Pollutant	National Status	California Status
Ozone (O <sub>3</sub> )	Extreme	Extreme
Carbon Monoxide (CO)	Serious	Serious
Sulfur Dioxide (SO <sub>2</sub> )	Attainment <sup>a</sup>	Attainment <sup>a</sup>
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>b</sup>	Maintenance <sup>b</sup>	Maintenance <sup>b</sup>
PM <sub>10</sub>	Serious	Serious
Lead (Pb)	Attainment <sup>a</sup>	Attainment <sup>a</sup>

<sup>a</sup> A pollutant is designated as in attainment if the standard for that pollutant was not violated at any site in the area during a three year period.

<sup>b</sup> NO<sub>2</sub> is classified as being in maintenance since it is currently in attainment and measures are being taken to ensure that it does not go back into non-attainment.

Source: California Air Resources Board, 1999.

Local air quality management districts, such as the South Coast Air Quality Management District (SCAQMD), regulate air pollution from commercial and industrial facilities. All air pollution control districts have been formally designated as in attainment or non-attainment for each State air quality standard. Table 11 lists the criteria pollutants and the Basin's attainment status relative to the CAAQS and NAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include, among other emissions-reducing activities, Best Available Retrofit Control Technology for existing sources; control programs for area sources and indirect sources; a SCAQMD permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions; transportation control measures; sufficient control strategies to achieve a five percent or more annual reduction in emissions (or 15 percent or more in a three-year period) for Reactive Organic Compounds (ROC), NO<sub>x</sub>, CO and PM<sub>10</sub>; and demonstration of compliance with the California Air Resources Board's established reporting periods for compliance with air quality goals.

### (c) South Coast Air Quality Management District

The SCAQMD has jurisdiction over approximately 12,000 square-miles consisting of the Basin (a 6,600 square-mile area encompassing all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties) and the Los Angeles County and Riverside County portions of what was formerly the Southeast Desert Air Basin under State classification. While air quality in this area has improved, with 1999 (the latest year for which comprehensive data are available) registering some of the lowest levels of air pollutant concentrations in decades, the Basin requires continued diligence to meet air quality standards. The SCAQMD has adopted a

series of Air Quality Management Plans (AQMP) to meet the California and National ambient air quality standards. The most recent version of the AQMP was adopted in 1997. Portions of the AQMP that are required to meet Federal CAA requirements have been submitted to the U.S. Environmental Protection Agency (USEPA) and will therefore become federally enforceable once they are approved by the USEPA. The 1997 AQMP describes a comprehensive air pollution control program that focused on attaining the California and National ambient air quality standards in the Basin and those portions of the Southeast Desert Air Basin that are under the jurisdiction of the SCAQMD. In relation to earlier plans, the 1997 AQMP places greater emphasis on the most highly effective controls and regulations, rather than a breadth of controls on smaller sources such as land uses. It also focuses more on particulate emissions that result from incomplete fuel combustion than previous plans, recognizing recent research on particulates and health effects. Notwithstanding, the 1997 AQMP still calls for the implementation of all feasible control measures and the advancement and use of new technologies where possible.

The SCAQMD also adopts rules to implement portions of the AQMP. Several of these rules may apply to construction or operation of the proposed Project. For example, Rule 403 requires the implementation of best available control technology (BACT) to control fugitive dust. In addition, certain stationary sources of air pollution, such as boilers and heaters, may require permits from the SCAQMD pursuant to Rules 201, 202 and 203. Emission increases related to those sources may be subject to SCAQMD Regulation XIII or Regulation XXX which among other things requires that the BACT be utilized to reduce pollutants, and requires that any increases of criteria air pollutants be offset by achieving equivalent emission reductions at the facility within the Basin. In addition, the proposed Project may be subject to CAA Title V, as stated in SCAQMD Regulation XXX, under which all equipment located at the facility must be in compliance with all terms, requirements, and conditions specified in a Title V permit. Finally, the Project may be subject to SCAQMD Rule 2202 which requires employers of more than 250 employees at a worksite to implement strategies that help to reduce mobile source emissions.

In addition to the AQMP and its rules and regulations, SCAQMD has published a handbook (CEQA Air Quality Handbook, November 1993) that is intended to provide local governments and CEQA practitioners with guidance for analyzing and mitigating project-specific air quality impacts. This handbook provides standards, methodologies and procedures for conducting air quality analyses in EIRs.

#### **(d) Regional Comprehensive Plan and Guide**

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the

nation. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide (RCPG)* for the SCAG region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of air quality forecasts and the consistency analysis that is included in the AQMP.

**b. Existing Air Quality Conditions**

**(1) Regional Air Quality**

The distinctive climate of the Basin, in which the Project site is located, is determined primarily by its terrain and geographical location. Regional meteorology is largely dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

The Basin is an area of high air pollution potential, particularly from June through September. This condition is generally attributed to light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season and time of day. Ozone (O<sub>3</sub>) concentrations, for example, tend to be lower along the coast, higher in the near inland valleys and lower in the far inland areas of the Basin and adjacent desert.

Over the past 30 years, substantial progress has been made in reducing air pollution levels in southern California. The area previously was in non-attainment for all NAAQS, except SO<sub>2</sub>. The area is now defined as in attainment for NO<sub>2</sub>, lead, and SO<sub>2</sub>, with CO approaching attainment. PM<sub>10</sub> and ozone levels, while reduced substantially from their peak levels, are still far from attainment.

**(2) Local Area Conditions**

**(a) Existing Pollutant Levels at Nearby Monitoring Stations**

The SCAQMD maintains a network of air quality monitoring stations located throughout the Basin. The proposed Project site is located in downtown Los Angeles. As defined by the SCAQMD, the monitoring station most representative of existing air quality conditions in the area of the proposed Project site is the Central Los Angeles Monitoring Station, which is located at 1630 North Main Street, approximately three miles northeast of the Project site. Criteria pollutants, including O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM<sub>10</sub> are monitored at this station. The most recent data available

from this monitoring station encompassed the years 1995 to 1999. The data, shown in Table 12 on page 215, shows the following pollutant trends:

**Ozone (O<sub>3</sub>)** - The maximum ozone concentration recorded during the reporting period was 0.17 ppm (1995). During this reporting period, the California standard of 0.09 ppm was exceeded between 6 and 38 times annually. The lowest reading was recorded in 1997, at only six exceedances. The National standard of 0.12 ppm was exceeded between zero and five days annually during the five-year reporting period, with the maximum number of exceedances occurring in 1995 and 1998, and the minimum number of exceedances occurring in 1997.

**Carbon Monoxide (CO)** - The maximum recorded one-hour concentration during the reporting period was 10.0 ppm (1995 and 1996). During this reporting period, there were no exceedances of the California or National one-hour CO standards. The maximum recorded eight-hour CO concentration was 8.4 ppm, recorded in 1995 and 1996. The California and National standards, both reported at 9.0 ppm for the eight-hour average, were not exceeded during the reporting period.

**Nitrogen Dioxide (NO<sub>2</sub>)** - The highest recorded concentration of NO<sub>2</sub> during the reporting period was 0.25 ppm (1996). The California NO<sub>2</sub> standard was not exceeded during the reporting period, nor were there any violations of the National NO<sub>2</sub> standard.

**Sulfur Dioxide (SO<sub>2</sub>)** - The highest recorded concentration of SO<sub>2</sub> during the reporting period 1995 to 1999 was 0.14 ppm (1998). No violations of the California or National SO<sub>2</sub> standards were recorded during this reporting period.

**Particulate Matter (PM<sub>10</sub>)** - The highest recorded concentration during the reporting period was 141 micrograms per cubic meter (Fg/m<sup>3</sup>) of air particulates (1995). During this reporting period, the California PM<sub>10</sub> standard was exceeded between 18 and 31 percent of the time annually, with the highest number of exceedances in 1999 and the lowest number of exceedances recorded in 1996 and 1998. PM<sub>10</sub> is monitored every six days coincident with a National schedule; thus, PM<sub>10</sub> exceedances are based on the number of days that sampling actually occurred. No exceedances of the National standard occurred between 1995 and 1999.

**Lead (Pb)** - The Basin is currently in compliance with California and National standards for lead.

Table 12

**POLLUTANT STANDARDS AND CENTRAL LOS ANGELES  
MONITORING STATION AMBIENT AIR QUALITY DATA**

	1995	1996	1997	1998	1999
<b>Ozone (O<sub>3</sub>)</b>					
<i>California Standard (1-hr avg. &gt; 0.09 ppm)</i>					
<i>National Standard (1-hr avg. &gt; 0.12 ppm)</i>					
Maximum Concentration 1-hr period (ppm)	0.17	0.14	0.12	0.14	0.12
Days California standard exceeded	38	24	6	17	13
Days National 1-hr standard exceeded	5	4	0	5	1
<b>Carbon Monoxide (CO)</b>					
<i>California Standard (1-hr avg. &gt; 20 ppm)</i>					
<i>California Standard (8-hr avg. &gt; 9 ppm)</i>					
<i>National Standard (1-hr avg. &gt; 35 ppm)</i>					
<i>National Standard (8-hr avg. &gt; 9 ppm)</i>					
Maximum concentration 1-hr period (ppm)	10	10	9	8	n/a
Maximum concentration 8-hr period (ppm)	8.4	8.4	7.9	6.1	6.37
Days California 1-hr standard exceeded	0	0	0	0	0
Days National 1-hr standard exceeded	0	0	0	0	0
Days California 8-hr standard exceeded	0	0	0	0	0
Days National 8-hr standard exceeded	0	0	0	0	0
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>					
<i>California Standard (1-hr avg. &gt; 0.25 ppm)</i>					
<i>National Standard (AAM &gt; 0.05334 ppm)</i>					
Maximum 1-hr concentration (ppm)	0.24*	0.25	0.20	0.17	n/a
Annual Arithmetic Mean (AAM)	0.0450*	0.0436	0.0430	0.0398	n/a
Days California standard exceeded	0*	0	0	0	0
Percent National standard exceeded	0*	0	0	0	0
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>					
<i>California Standard (1-hr avg. &gt; 0.25 ppm)</i>					
<i>National Standard (AAM &gt; 0.03 ppm)</i>					
Maximum 1-hr concentration (ppm)	0.01	0.01	0.02	0.14	n/a
Annual Arithmetic Mean (AAM)	0.0010	0.0015	0.0007	0.0008	n/a
Days California standard exceeded	0	0	0	0	0
Days National standard exceeded	0	0	0	0	0
<b>Particulate Matter (PM<sub>10</sub>)</b>					
<i>California standard (24-hr avg. &gt; 50 Fg/m<sup>3</sup>)</i>					
<i>National standard (24-hr avg. &gt; 150 Fg/m<sup>3</sup>)</i>					
Maximum 24-hr concentration (Fg/m <sup>3</sup> )	141	138	102	80	88
Percent samples exceeding California standard	23	18	24	18	31
Percent samples exceeding National standard	0	0	0	0	0

AAM = Annual Arithmetic Mean    ppm = parts per million    Fg/m<sup>3</sup> = micrograms per cubic meter

\* Less than 12 full months of data. May not be representative.

n/a = not available

Note: Ambient data for airborne lead is not included in this table since the Basin is currently in compliance with State and National standards for lead. Ambient data for fine particulate matter (PM<sub>2.5</sub>) is not available since this pollutant was only identified as a criteria pollutant in 1997 and, as such, data has not yet been collected on PM<sub>2.5</sub> concentrations.

Sources: South Coast Air Quality Management District, Air Quality Data 1995-1999; California Air Resources Board.



## **2. ENVIRONMENTAL IMPACTS**

### **a. Significance Thresholds**

Air quality planning within the Basin is based on attainment of the NAAQS and CAAQS. To this end, the SCAQMD has established thresholds of significance for the assessment of air quality impacts attributable to private development projects. The thresholds seek to promote NAAQS and CAAQS attainment.

#### **(1) Regional Impacts**

The SCAQMD has promulgated daily and quarterly emission thresholds for project construction as well as daily emission thresholds for project operations. The SCAQMD thresholds are set at a level that either promote or maintain regional attainment of the relevant ambient air quality standards. A project is deemed to have a significant impact on regional air quality if emissions (specified in either pounds of pollutant emitted per day or per quarter) of specified pollutants related to either project construction or operation exceed the significance threshold. These regional significance thresholds are summarized in Table 13 on page 217.

#### **(2) Local Impacts**

Based on the State CEQA Guidelines, the proposed Project would have a significant impact upon local area air quality if it causes a new exceedance or a “measurable increase” in an existing exceedance of an NAAQS or CAAQS. The significance thresholds for new exceedances consist of the relevant NAAQS or CAAQS, as listed in Table 13. Measurable increases in significance thresholds only apply when ambient pollutant concentrations prior to project development exceed either the NAAQS or CAAQS. These local pollutant concentration thresholds are summarized in Table 14 on page 218.

Emissions of sulfates, hydrogen sulfide, lead, and vinyl chloride are expected to be negligible, based on the types of fuels to be consumed (i.e., gasoline and diesel) during Project construction and operations. Though listed in the CAAQS, these pollutants would likely be generated in negligible quantities, and the SCAQMD only monitors for these pollutants on a limited basis at a limited number of SCAQMD monitoring stations. As these pollutants are not a problem within the Basin, the SCAQMD has not established significant thresholds for them, and they are therefore not further analyzed in this Draft EIR.

Table 13

## SCAQMD REGIONAL SIGNIFICANCE THRESHOLDS

Air Contaminant	Construction (Pounds per Day)	Construction (Tons per Quarter)	Post-Construction Operations (Pounds per Day)
Carbon Monoxide	550	24.75	550
Nitrogen Oxides	100	2.50	55
Reactive Organic Compounds	75	2.50	55
Particulate Matter	150	6.75	150
Sulfur Oxides	150	6.75	150

Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.

### (3) Sensitive Receptors

Some population groups, such as children, the elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. Sensitive land use receptors in the vicinity of the project site include residential uses, schools, hospitals and senior housing. Other land uses in the vicinity of the proposed Project site include commercial and office buildings, retail stores and parking lots. These other uses are not considered to be sensitive receptors. While pedestrians accessing these uses could include some members of sensitive population groups, these individuals are not specifically identified in the analysis in accordance with SCAQMD methodology, since their presence in the vicinity of the proposed Project site would be limited and/or intermittent.

#### b. Methodologies/Analysis of Project Impacts

An analysis of the potential air quality impacts of the proposed Project was conducted for both the construction and post-construction operation phases of the proposed Project. For each of these phases, an analysis was performed for regional emissions. An analysis of the potential impacts on local ambient PM<sub>10</sub> concentrations from Project-related construction activities was also conducted. For post-construction operations, the analysis also addresses local area concentrations of a specific pollutant, carbon monoxide. CO is the primary pollutant of concern when analyzing local traffic-related air quality impacts, and it is the only pollutant from mobile sources for which standardized modeling methodologies for estimating localized concentrations have been developed and approved by the SCAQMD. The worksheets for the air quality modeling are provided in Appendix D of this Draft EIR.

Table 14

**LOCAL POLLUTANT CONCENTRATION (MEASURABLE INCREASE) THRESHOLDS**

<b>Air Contaminant</b>	<b>Averaging Time</b>	<b>Most Stringent Air Quality Standard</b>	<b>Significant Change in Air Quality Concentration</b>
Carbon Monoxide	1-hour	20 ppm	n/a
	8-hour	9 ppm	n/a
Suspended Particulate Matter # 10 Fm (PM <sub>10</sub> )	24-hour	50 Fg/m <sup>3</sup>	2.5 Fg/m <sup>3</sup>
	Annual	30 Fg/m <sup>3</sup>	1 Fg/m <sup>3</sup>
	Geometric Mean		

*n/a* = the measurable increase threshold is not applicable since ambient CO concentrations in the vicinity of the project site are below both the California and National Ambient Air Quality Standards

*ppm* = parts per million

*Fg/m<sup>3</sup>* = micrograms per cubic meter

Source: South Coast Air Quality Management District Rule 1303, May 1996.

**(1) Construction****(a) Regional Construction Impacts**

Construction of the proposed Project would generate PM<sub>10</sub> pollutant emissions from the following activities: (1) site preparation operations (grading/excavation); (2) travel by construction workers to and from the site; (3) delivery and hauling of construction materials and supplies to and from the site; (4) fuel combustion by onsite construction equipment; and (5) the application of architectural coatings and other building materials that release reactive organic compounds.

Construction emissions are calculated based on the type and magnitude of development which would be accommodated under the proposed Project, the mix of construction equipment required to build the project, and emission factors from the SCAQMD's *CEQA Air Quality Handbook* and USEPA's *Compilation of Air Pollutant Emission Factors* (AP-42). Site preparation, which includes grading, scraping and excavation after demolition of existing structures, was determined to produce the greatest regional construction emissions because this scenario represents the highest projected level of concurrent construction activity over the largest area and the highest projected level of construction equipment use. Therefore, this phase of construction was used to calculate the worst-case construction impacts for the Project.

Estimates of regional construction emissions were based upon the following worst-case assumptions:

- 1) All construction equipment would be diesel-powered and would operate simultaneously for 10 hours per day.

- 2) The equipment mix for site preparation and construction activities would include scrapers, graders, bulldozers, excavators, etc., as detailed in Appendix D of this Draft EIR.

Daily and quarterly construction-related regional emissions for the proposed Project are presented in Table 15 on page 220. Construction-related daily emissions would exceed SCAQMD significance thresholds for NO<sub>x</sub>, CO, ROC, and PM<sub>10</sub>. Construction-related quarterly emissions would exceed SCAQMD significance thresholds for NO<sub>x</sub>, CO, and ROC. Thus, emissions of these pollutants would result in a significant short-term regional air quality impact. Quarterly emissions of SO<sub>x</sub> and PM<sub>10</sub> and daily emissions of SO<sub>x</sub> would be less than significant, since levels of these emissions would fall below the SCAQMD significance thresholds.

### **(b) Local Construction Impacts**

Construction emissions for the proposed Project were estimated by defining construction activity areas and activity levels within these areas and are based on current emission factor data.<sup>35</sup> During construction, the main source of local air pollutant emissions would occur during grading and excavation when large numbers of diesel-powered construction equipment would be involved with soil disturbance. The analysis assumes concurrent grading and excavation activities within the individual activity areas. For the purposes of this analysis, grading emissions are defined as the emissions associated with the leveling of the site, while excavation includes emissions associated with the lifting and dropping of dirt. As such, the emission forecasts provided below reflect a specific set of conservative assumptions based on a hypothetical construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Actual emissions of individual construction activities would, in all probability, be less than those forecasted.

During the grading/excavation phase of construction, fugitive PM<sub>10</sub> emissions would be at their greatest magnitude.<sup>36</sup> Concurrent fugitive and equipment emissions represent the greatest potential for construction impacts with regard to PM<sub>10</sub>. During construction, emissions of other criteria pollutants and additional pollutants for which California has set standards would not pose the potential to significantly impact the identified sensitive receptors. Therefore, the analysis of local air quality impacts from construction activities focuses on PM<sub>10</sub> emissions and the resulting impact on sensitive receptors.

Computer modeling of PM<sub>10</sub> emissions determined above was performed to determine impacts on nearby residential receptors. The USEPA 1996 *Guideline on Air Quality Models* (GAQM) specifies the use of the USEPA Industrial Source Complex Short Term (ISCST) model for

<sup>35</sup> Emission factor data was taken from the USEPA AP-42, *Compilation of Air Emission Factors*, October 1998.

<sup>36</sup> Fugitive PM<sub>10</sub> is airborne particulate matter from soil disturbance (i.e., digging, grading, bulldozing, driving on unpaved roads, etc.) generated during grading/excavation.

Table 15

**WORST-CASE PROJECT-RELATED REGIONAL CONSTRUCTION EMISSIONS**

	<b>Estimated Emissions<sup>a</sup></b>				
	CO	NO <sub>x</sub>	PM <sub>10</sub> <sup>b</sup>	ROC	SO <sub>x</sub>
<b>Daily Emissions (lbs/day)<sup>c</sup></b>	1343	1497	168	550	90
SCAQMD Daily Threshold (lbs/day)	550	100	150	75	150
Lbs/Day Over (Under)	793	1397	18	475	(60)
<b>Quarterly Emissions (tons/quarter)</b>	34.5	44.0	4.1	18.5	2.7
SCAQMD Quarterly Threshold (tons/quarter)	24.75	2.5	6.75	2.5	6.75
Tons/Quarter Over (Under)	9.75	41.5	(265)	16.1	(4.05)

<sup>a</sup> Worst-case construction impacts are based upon the highest projected daily and quarterly emissions occurring during the demolition, site preparation and construction phase.

<sup>b</sup> Fugitive dust emissions are based on USEPA AP-42 assumptions.

<sup>c</sup> Daily estimate based on 22.5 working days per month.

Source: PCR Services Corporation, December 2000.

computing downwind pollutant concentrations from area sources such as construction activities. The nearest offsite residential buildings were selected as receptors because the applicable ambient air quality standard is expressed in terms of a 24-hour average and the nearest residential buildings are the closest locations where an exposure of this duration could occur (i.e., people would not likely be present for a continuous 24-hour period at other sensitive locations, such as parks, nor at the property fence line). The ISCST model was run using the SCAQMD mandated 1981 meteorological data from the Central Los Angeles Monitoring Station. Meteorology, in addition to construction activity location and levels, is a key determinant in the identification of potential impacts. As the ambient air quality standard is expressed in terms of an exceedance, the analysis takes into account hourly wind data (i.e., direction and velocity) for every hour of the year during the construction period and computes hourly ground level PM<sub>10</sub> concentrations. These concentrations are then averaged over a 24-hour period for comparison against the relevant significance thresholds. This methodological requirement creates the potential for atypical wind patterns to create an impact that would not typically occur based on prevailing wind patterns.

The 24-hour California standard for PM<sub>10</sub> is established at 50 Fg/m<sup>3</sup>. The SCAQMD has established that in cases where ambient conditions exceed this threshold, projects cannot increase PM<sub>10</sub> concentrations by more than 2.5 Fg/m<sup>3</sup>. Construction activity at the Olympic North Properties has the greatest potential for impacts on nearby residential sensitive receptors, with the closest receptor located at the corner of Francisco Street and Olympic Boulevard. The maximum forecasted PM<sub>10</sub> concentration increase of 1.95 Fg/m<sup>3</sup> would occur at this location. Impacts from construction activities on other sensitive receptors, further from the Project site, such as Tenth Street School and Norwood Street School, would be much less than 1.95 Fg/m<sup>3</sup> due to the dispersion properties of PM<sub>10</sub> (i.e., the pollutant dissipates further from the source). Since the construction activity area with the greatest potential for impacts would fall below the 2.5 Fg/m<sup>3</sup> significance threshold, it can be concluded that construction within any given activity area throughout the proposed Project site

would similarly fall below the threshold. Therefore, local air quality impacts relative to PM<sub>10</sub> concentrations would be less than significant.

## **(2) Operations**

Project operational impacts were evaluated for Project buildout by 2008. In order to properly analyze operational emissions, it is important to assign appropriate emissions and emission factors to the individual pollutant sources. Mobile source emission forecasts are sensitive to the forecast year, as future mobile source emission factors are substantially reduced as cleaner on-road vehicles are introduced into the vehicle fleet.

### **(a) Regional Operation Impacts**

Air pollutant emissions associated with Project occupancy and operation would be generated by both the consumption of energy (electricity and natural gas) and by the operation of on-road vehicles. Emissions associated with energy consumption are classified by the SCAQMD as regional stationary source emissions. Electricity is considered an area source since it is produced at various locations within, as well as outside of, the Basin. Since it is not possible to isolate where electricity is produced, these emissions are considered to be regional in nature. Emissions of criteria pollutants associated with the production of energy were calculated using emission factors from the SCAQMD's *CEQA Air Quality Handbook*.

Emissions modeled for the regional on-road air quality analysis were compiled using the URBEMIS7G emission inventory model. This computer model projects emission rates for motor vehicles based on a desired year of analysis, a projected vehicle fleet mix, projected vehicle speeds, and whether these emissions are expected to occur during the summer or the winter months. Assumptions used in preparing the model analysis were consistent with those recommended in SCAQMD's *CEQA Air Quality Handbook*. The regional on-road emissions were based on average daily trips for the proposed various land uses.<sup>37</sup>

To calculate regional emissions solely attributable to the proposed Project, emissions from future baseline conditions without the Project were subtracted from emissions associated with future baseline conditions with the Project (future baseline with Project minus future baseline without Project equals net project only emissions). Net Project emissions were calculated for the Project buildout, as shown in Table 16 on page 222. As indicated therein, regional emissions resulting from the proposed Project are expected to exceed the SCAQMD thresholds for CO, NO<sub>x</sub>, PM<sub>10</sub>, and ROC.

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<sup>37</sup> The project's average daily trips are presented in Section V.L.1, Transportation/Circulation, of the Draft EIR.

Table 16

## PROJECT-RELATED OPERATIONAL EMISSIONS

Emission Source	CO (Pounds per Day)	NO <sub>x</sub> (Pounds per Day)	PM <sub>10</sub> (Pounds per Day)	ROC (Pounds per Day)	SO <sub>x</sub> (Pounds per Day)
<b>Baseline without Project Emissions</b>					
On Road Mobile Sources <sup>a</sup>	0	0	0	0	0
Stationary Sources <sup>b</sup>	0	0	0	0	0
<b>Total Baseline without Project Emissions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Project Emissions</b>					
On Road Mobile Sources <sup>a</sup>	2498	463	329	824	0
Stationary Sources <sup>b</sup>	33	191	4	4	15
Miscellaneous Sources <sup>c</sup>	15	20	4	52	3
<b>Total Baseline with Project Emissions</b>	<b>2546</b>	<b>674</b>	<b>337</b>	<b>880</b>	<b>18</b>
<b>Net Project Emissions</b>					
On Road Mobile Sources <sup>a</sup>	2498	463	329	824	0
Stationary Sources <sup>b</sup>	33	191	4	4	15
Miscellaneous Sources <sup>c</sup>	15	20	4	52	3
<b>Total (Proposed Project)</b>	<b>2546</b>	<b>674</b>	<b>337</b>	<b>880</b>	<b>18</b>
SCAQMD Significance Threshold	550	55	150	55	150
<b>Over (Under)</b>	<b>1996</b>	<b>619</b>	<b>187</b>	<b>825</b>	<b>(132)</b>

<sup>a</sup> Calculated based on average daily trips, as presented in Section IV.F.1, Traffic, Transportation/Circulation, of this Draft EIR.

<sup>b</sup> Based on electricity and natural gas consumption obtained from the SCAQMD's CEQA Air Quality Handbook.

<sup>c</sup> Based on emissions from miscellaneous sources such as charbroilers, chillers, emergency generators, architectural coatings and landscape and garden equipment.

Source: PCR Services Corporation, December 2000.

Development projects for which toxic emissions are of a concern usually include industrial, manufacturing, and commercial land uses such as gas stations and dry cleaning facilities. While these types of uses are not anticipated to occur at the Project site, a potential exists that on-site development may include uses, which have the potential to emit air toxics. It is important to note that any such facility would require a permit from the SCAQMD. The regulations, which guide the issuance of these permits, require that any potential health risk be reduced to acceptable levels and that emissions be reduced to less than one pound per day. With adherence to the SCAQMD's existing regulations, Project operations would have a less than significant impact on human health.

## (b) Local Operation Impacts

During the operational phase of the Project, traffic would have the potential for local area impacts. An analysis of selected intersections was performed to determine the potential for the creation of CO impacts (hotspots). Local area CO concentrations were projected using the CALINE-4 traffic pollutant dispersion model. The analysis of CO impacts followed the protocol

Table 17

## SELECTED INTERSECTIONS ANALYZED FOR CO IMPACTS

Weekday P.M. Intersections	Saturday Evening Intersections
1) Francisco and Olympic	1) Cherry and Pico
2) Figueroa and 9 <sup>th</sup>	2) Georgia and 11 <sup>th</sup>
3) Figueroa and Olympic	3) Francisco and Olympic
4) Figueroa and 11 <sup>th</sup>	4) Figueroa and Olympic
5) Flower and 9 <sup>th</sup>	5) Figueroa and Olympic
6) Flower and Olympic	6) Flower and 11 <sup>th</sup>

Source: PCR Services Corporation, December 2000.

recommended by the California Department of Transportation and published in the document entitled *Transportation Project-Level Carbon Monoxide Protocol*, December 1997. The analysis is also consistent with procedures identified through the SCAQMD CO modeling protocol, with all four corners of each intersection analyzed to determine whether Project traffic would result in a CO concentration that exceeds National or State CO standards. Six intersections were selected for analysis for weekday P.M. and Saturday P.M. peak hour traffic volumes based on their Level of Service (LOS), the Project's traffic contribution to the intersection and the proximity of the intersection to sensitive receptors. The intersections listed in Table 17 below have the highest potential for CO hotspot formation due to a poor LOS (functioning near or above capacity) and high Project traffic contributions.

Future CO concentrations were determined for the weekday P.M. peak and Saturday P.M. peak time periods by adding the predicted increase in CO concentrations attributable to implementation of the proposed Project to a projected ambient concentration (i.e., a future baseline condition). Based upon guidance from the SCAQMD, an ambient CO concentration was projected for 2008 based upon the past 15 years of air quality data from the Anaheim Monitoring Station (Chico, 1998). The Central Los Angeles Monitoring Station was used in the analysis as it is the most representative of existing conditions at the Project site. Baseline conditions as well as the Project's contribution to CO concentrations were identified for the weekday P.M. and Saturday evening peak hours. The A.M. peak hour was not chosen for analysis because the P.M. peak hour represents worst-case conditions with respect to traffic volumes.

The CALINE-4 model generates CO concentrations averaged over a one-hour time period under worst-case atmospheric conditions for the area, including low wind speeds and low atmospheric circulation. Eight-hour concentrations were calculated by converting one-hour concentrations to eight-hour equivalents, using the conversion protocol recommended by the SCAQMD.



The results of the local area CO dispersion analysis are presented in Table 18 and Table 19 on pages 225 and 226, respectively. As shown, Project-related traffic is not anticipated to result in any exceedances of the State one-hour CO standard of 20 ppm at any of the study intersections during the P.M. and Saturday P.M. peak periods. Similarly, eight-hour concentrations would remain below the State standard of 9 ppm.

Since significant impacts would not occur at the intersections with the highest potential for CO hotspot formation, no significant impacts are anticipated to occur at any other locations in the Project vicinity. Consequently, sensitive receptors in the area would not be significantly affected by CO emissions generated by Project-related traffic. Localized air quality impacts related to mobile source emissions would therefore be less than significant for the proposed Project.

**c. Consistency with Adopted Plans and Policies**

The SCAQMD has adopted criteria for assessing consistency with applicable regional plans and the Air Quality Management Plan in its CEQA Air Quality Handbook. This section of the air quality analysis examines the consistency of the proposed Project with the AQMP.

**(1) SCAQMD Handbook Policy Analysis**

In accordance with the procedures established in the SCAQMD CEQA Air Quality Handbook, the following criteria are to be addressed in order to determine project consistency with SCAQMD and SCAG policies:

1. Will the project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations; or
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Will the project exceed the assumptions utilized in preparing the AQMP?

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis include forecasts of project emissions in a regional context during construction, and in a regional as well as local context during project occupancy. These forecasts are provided. Since the consistency criteria identified under the first criterion pertain mostly to pollutant concentrations rather than to total regional emissions (i.e., air quality standards are expressed as concentrations

Table 18

## WEEKDAY EVENING TRAFFIC LOCAL AREA CARBON MONOXIDE (CO) DISPERSION ANALYSIS

Intersection	Peak Period <sup>a</sup>	1-Hour Ambient Concentration (ppm)	Maximum 1-Hour Project Contribution <sup>b</sup> (ppm)	Maximum 1-Hour Concentration <sup>b</sup> (ppm)	8-Hour Ambient Concentration (ppm)	Maximum 8-Hour Project Contribution (ppm)	Maximum 8-Hour Concentration <sup>b</sup> (ppm)
Francisco and Olympic	P.M.	5.65	1.9	7.6	5.17	1.6	6.8
Figueroa and 9 <sup>th</sup>	P.M.	5.65	3.9	9.6	5.17	3.2	8.4
Figueroa and Olympic	P.M.	5.65	1.5	7.2	5.17	1.3	6.4
Figueroa and 11 <sup>th</sup>	P.M.	5.65	0.9	6.6	5.17	0.8	5.9
Flower and 9 <sup>th</sup>	P.M.	5.65	0.8	6.5	5.17	0.7	5.8
Flower and Olympic	P.M.	5.65	1.8	7.5	5.17	1.5	6.7

ppm = parts per million.

<sup>a</sup> Peak hour traffic levels based on Section IV.F.1, Traffic, of this Draft EIR.

<sup>b</sup> The most stringent Air Quality Standard for 1-hour average concentration is 20 ppm, and 9 ppm for an 8-hour average concentration.

Source: PCR Services Corporation, December 2000.

Table 19

## SATURDAY EVENING TRAFFIC LOCAL AREA CARBON MONOXIDE (CO) DISPERSION ANALYSIS

Intersection	Peak Period <sup>a</sup>	1-Hour Ambient Concentration (ppm)	Maximum 1-Hour Project Contribution (ppm)	Maximum 1-Hour Concentration <sup>b</sup> (ppm)	8-Hour Ambient Concentration (ppm)	Maximum 8-Hour Project Contribution (ppm)	Maximum 8-Hour Concentration <sup>b</sup> (ppm)
Cherry and Pico	Sat.	5.65	1.6	7.3	5.17	1.3	6.5
Georgia and 11 <sup>th</sup>	Sat.	5.65	2.7	8.4	5.17	2.2	7.4
Francisco and Olympic	Sat.	5.65	2.7	8.4	5.17	2.2	7.4
Figueroa and Olympic	Sat.	5.65	1.0	6.7	5.17	0.8	6.0
Figueroa and 11 <sup>th</sup>	Sat.	5.65	1.2	6.9	5.17	1.0	6.2
Flower and Olympic	Sat.	5.65	1.0	6.7	5.17	0.8	6.0

*ppm = parts per million.*

<sup>a</sup> Peak hour traffic levels based on Section IV.F.1, Traffic, of the Draft EIR.

<sup>b</sup> The most stringent Air Quality Standard for 1-hour average concentration is 20 ppm, and 9 ppm for an 8-hour average concentration.

Source: PCR Services Corporation, December 2000.

[Fg/m<sup>3</sup>] rather than emission limits [lbs/hour]), the analysis of the Project's impact on localized pollutant concentrations is used as the basis for evaluating Project consistency. As discussed in the preceding sections, localized concentrations for PM<sub>10</sub> and CO have been prepared for the proposed Project.

PM<sub>10</sub> was determined to be the primary impacting pollutant for construction activities. As discussed earlier, Project-related construction was evaluated to determine potential impacts on ambient PM<sub>10</sub> concentrations from grading and excavation operations. These impacts were evaluated at sensitive receptors in the vicinity of the Project site, and the impacts were compared to the measurable increase threshold of 2.5 Fg/m<sup>3</sup> as promulgated by the SCAQMD Rule 1303. The results of this analysis indicated that Project construction-related PM<sub>10</sub> emissions would be below the relevant significance threshold. Therefore, construction-related PM<sub>10</sub> emissions would not cause an increase in the frequency or severity of any existing air quality violations; would not cause or contribute to new air quality violations; and therefore would not impede the timely attainment of air quality standards.

As also previously indicated, carbon monoxide has been identified as the preferred pollutant for assessing local area air quality impacts from motor vehicle operations. Based on the methodologies set forth by SCAQMD, the measure of local area air quality impacts which indicates whether a project would cause or affect a violation of an air quality standard is the estimated CO concentrations at selected receptor locations located in close proximity to the Project site. As previously discussed, no violations of the State or Federal carbon monoxide standards are projected to occur as a result of Project operations.

In addition, air quality planning within the Basin focuses on the attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing and growth trends. Thus, the determination of Project consistency focuses on whether or not the proposed Project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP.

Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with population, housing and employment growth projections; (2) proposed Project mitigation measures; and (3) appropriate incorporation of land use planning strategies. The following discussion provides a detailed analysis of each of these three criteria.

- Is the project consistent with the population, housing and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 1997 AQMP, two sources of employment data form the basis for the projections of air pollutant emissions, including the City of Los Angeles General Plan and SCAG's Growth Management Chapter of the *Regional Comprehensive Plan and Guide (RCPG)*. The proposed Project is consistent with the types, intensity and patterns of land use envisioned for the site vicinity in the RCPG. In addition, the estimated workforce projections for the Project would fall within the growth projections for the City of Los Angeles, the City of Los Angeles subregion and the County of Los Angeles. Thus, it can be concluded that the proposed Project would be generally consistent with the growth projections upon which the AQMP attainment strategies are based.

In addition, the *Regional Transportation Plan (RTP)*, adopted by SCAG, projects that employment in the City of Los Angeles subregion, in which the proposed Project site is located, will grow by approximately 186,700 jobs between 2000 and 2010. The proposed Project is projected to result in a net increase of approximately 5,343 full-time regular jobs at the proposed Project site, or approximately 2.86 percent of the total job growth projected for the subregion. This level of employment growth would not be sufficiently large enough to call into question the employment forecasts for the subregion adopted by SCAG. Because the SCAQMD has incorporated these same projections into the AQMP, it can be concluded that the proposed Project would be consistent with the projections in the AQMP.

- Does the project implement all feasible air quality mitigation measures?

The Project is proposed to implement all feasible mitigation measures to reduce air quality impacts in part through the issuance of required approvals and permits by the SCAQMD and other agencies. The proposed Project would also incorporate a wide array of key air pollution control strategies identified by the SCAQMD, as described below.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

The proposed Project would serve to implement a number of land use policies set forth by the City of Los Angeles and SCAG. For example, the City of Los Angeles' Air Quality Element encourages new development at or in close proximity to major transit corridors. The concentration of employment on the proposed Project site would provide improved opportunities for the use of public transit, including bus and rail service, and other alternative transportation modes, thereby supporting the objective of reducing vehicle miles traveled and vehicular air pollutant emissions. Please refer to Section IV.A, Land Use, of the Draft EIR for further discussion of the Project's consistency with applicable land use policies.

A comprehensive parking master plan would also be implemented as part of the proposed Project, with sufficient parking provided onsite to meet the demand generated by the potential uses. This parking master plan would meet the parking requirements set forth by the City Zoning Code and provide direct street access to parking facilities. The parking master plan would minimize impacts to adjacent uses by reducing unnecessary exhaust emissions which result from insufficient parking facilities. Please refer to Section IV.F.2, Parking, of the Draft EIR for further discussion Project parking.

Based on the analysis above, the proposed Project would meet the criteria specified by the SCAQMD which are used to determine consistency with applicable SCAQMD and SCAG policies. The Project would therefore be consistent with adopted air quality plans and policies.

### **3. MITIGATION MEASURES**

The following mitigation measures set forth a program of air pollution control strategies designed to reduce the Project's air quality impacts.

#### **(1) Construction**

The measures identified below implement SCAQMD measures associated with onsite grading activities, construction equipment travel on paved roads, as well as the SCAQMD's intent to control fugitive dust emissions associated with demolition activities and construction equipment travel onsite.

##### **(a) Land Clearing/Earth-Moving**

1. The Applicant shall secure any necessary permits from the SCAQMD.
2. Non-toxic soil stabilizers shall be applied according to manufacturers' specifications or vegetation shall be planted on all inactive construction areas (i.e., previously graded areas inactive for 10 days or more and not scheduled for additional construction activities within 12 months) to the extent feasible.
3. Exposed pits (i.e., gravel, soil, dirt) with five percent or greater silt content shall be watered twice daily, enclosed, covered or treated with non-toxic soil stabilizers according to manufacturers' specifications.
4. All other active sites shall be watered at least twice daily.

5. All grading activities shall cease during second stage smog alerts and periods of high winds (i.e., greater than 25 mph) if soil is being transported to offsite locations and cannot be controlled by watering.
6. All trucks hauling dirt, sand, soil, or other loose materials offsite shall be covered or wetted or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer).
7. A construction relations officer shall be appointed by the Applicant to act as a community liaison concerning onsite construction activity, including resolution of issues related to fugitive dust generation.
8. Diesel fueled onsite generators may not be used during construction of the proposed Project.

**(b) Paved Roads**

9. All construction roads internal to the construction site that have a traffic volume of more than 50 daily trips by construction equipment, or 150 total daily trips for all vehicles, shall be surfaced with base material or decomposed granite, or shall be paved.
10. Streets shall be swept if visible soil material has been carried onto adjacent public paved roads.
11. Construction equipment shall be visually inspected prior to leaving the site and loose dirt shall be washed off with wheel washers as necessary.

**(c) Unpaved Roads**

12. Water or non-toxic soil stabilizers shall be applied, according to manufacturers' specifications, as needed to reduce offsite transport of fugitive dust from all unpaved staging areas and unpaved road surfaces.
13. Traffic speeds on all unpaved roads shall not exceed 15 mph.

**(2) Operation**

14. In order to reduce the long-term mobile source emissions associated with the proposed Project, the Applicant shall continue to implement transportation systems management and demand management measures and comply with SCAQMD Rule 2202, which applies to all employers who employ 250 or more persons on a full or

part-time basis at a single worksite. This rule, which aims to reduce volatile organic compounds (VOCs), NO<sub>x</sub>, and CO, provides employers a menu of options that they can choose from to reduce emissions related to employee commutes.

#### **4. ADVERSE EFFECTS**

With implementation of the mitigation measures described above, Project construction would continue to generate NO<sub>x</sub>, CO, ROC, and PM<sub>10</sub> emissions that exceed SCAQMD regional significance thresholds for construction activities. Therefore, construction of the proposed Project would have a significant and unavoidable impact on regional air quality. This impact, however, would be short-term in nature. Local air quality impacts associated with construction emissions would remain less than significant.

During the operational phase, the proposed Project would result in regional emissions that exceed SCAQMD significance thresholds for CO, NO<sub>x</sub>, PM<sub>10</sub>, and ROC. The mitigation measures identified above would reduce these air quality impacts, but emissions would remain above SCAQMD significance thresholds. Therefore, operation of the proposed Project would have a significant and unavoidable impact on regional air quality. No significant impacts to local air quality would result from Project operations.

#### **5. CUMULATIVE IMPACTS**

The SCAQMD has set forth both a methodological framework as well as significance thresholds for the assessment of a project's cumulative air quality impacts. The SCAQMD's methodology differs from the cumulative impacts methodology employed elsewhere in this Draft EIR, in which all foreseeable future development within a given service boundary or geographical area is predicted and associated impacts measured. The SCAQMD's approach for assessing cumulative impacts is based on the fact that the SCAQMD's Air Quality Management Plan forecasts attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts, taking into account SCAG's forecasted future regional growth. Therefore, if all cumulative projects are individually consistent with the growth assumptions upon which the SCAQMD's AQMP is based, then future development would not impede the attainment of ambient air quality standards and a significant cumulative air quality impact would not occur. Cumulative air quality impacts for the proposed Project were evaluated in the context of Los Angeles County as a whole for the projected buildout year of 2008.

Based on the SCAQMD's significance threshold, a project would have a significant cumulative air quality impact if the daily project vehicle miles traveled to daily countywide vehicle miles traveled ratio exceeds the ratio of daily project employees to daily countywide employees. An



Table 20

**PROJECT CUMULATIVE AIR QUALITY IMPACTS**

Daily Vehicle Miles Traveled for Project <sup>a</sup>	278,826
Daily Vehicle Miles Traveled Countywide <sup>b</sup>	187,402,117
<b>Daily Vehicle Miles Traveled Ratio</b>	<b>0.001488</b>
Number of Employees at Project <sup>a</sup>	5,343
Number of Employees Countywide <sup>c</sup>	5,063,640
<b>Employment Ratio</b>	<b>0.001051</b>
<b>Significance Test --</b>	
<b>Daily Vehicle Miles Traveled Ratio Greater Than Employment Ratio</b>	<b>YES</b>

<sup>a</sup> Increase over existing conditions.

<sup>b</sup> Data obtained from Table A9-14-A of the SCAQMD's CEQA Air Quality Handbook, November 1993.

<sup>c</sup> Data obtained from SCAG's Regional Transportation Plan, Socioeconomic Projections, April 1998.

Source: PCR Services Corporation, December 2000.

assessment of the Project's cumulative impacts associated with the Project is presented in Table 20 above. As shown, the Project's rate of growth in vehicle miles traveled is greater than the Project's rate of growth in employment. Therefore, the Project would have a significant cumulative impact on air quality.