IV. ENVIRONMENTAL IMPACT ANALYSIS
C. AIR QUALITY

This section examines the degree to which the proposed project may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities such as site grading and haul truck trips, as well as long-term effects related to the ongoing operation of the proposed project are discussed in this section. The analysis contained herein focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the actual quantity of pollutant measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air and are measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

The potential for the proposed project to conflict with or obstruct implementation of the applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people are also discussed. Documents used in the preparation of this section include the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook and the 2003 Air Quality Management Plan (AQMP), as amended, as well as federal and State regulations and guidelines.

ENVIRONMENTAL SETTING

The project site is located within the South Coast Air Basin (Basin); named so because of its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. This area includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The air quality within the Basin is primarily influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry and meteorology.

Regulatory Framework

Air quality in the United States is governed by the Federal Clean Air Act (CAA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the CAA is administered by the United States Environmental Protection Agency (USEPA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the Air Quality Management Districts at the regional and local levels.

Air quality within the Basin is addressed through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through

legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the Basin are discussed below.

USEPA

The USEPA is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The USEPA also has jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs.

CARB

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment.

Although the SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan and Guide (RCPG) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCPG is a framework for decision-making for local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2015, and beyond. Policies within the

RCPG include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

SCAQMD

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. Every three years, the SCAQMD prepares an overall plan for air quality improvement. Each iteration of the plan is an update of the previous plan and has a 20 year horizon. The Final 2003 AQMP was adopted by the SCAQMD Governing Board on August 1, 2003. The 2003 AQMP updates the attainment demonstration for the federal standards for ozone and particulate matter (PM_{10}); replaces the 1997 attainment demonstration for the federal carbon monoxide (CO) standard and provides a basis for a maintenance plan for CO for the future; and updates the maintenance plan for the federal nitrogen dioxide (NO_2) standard that the Basin has met since 1992. This revision to the AQMP also addresses several State and federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for the Basin for the attainment of the federal ozone air quality standard.

The future air quality levels projected in the 2003 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the RCPG, which was adopted in March 1996. The AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation.

City of Los Angeles

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

Air Pollutants and Effects

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as barbeque lighter fluid and hair spray. Mobile sources are a type of area source that refers to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and self-propelled construction equipment. Mobile sources account for the majority of the air pollutant emissions within the Basin.

Both the federal and State governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The federal and State standards have been set at levels which concentrations could be generally harmful to human health and welfare, and to protect the most sensitive persons from illness or discomfort with a margin of safety. Applicable standards are identified later in this EIR section. The SCAQMD is responsible for bringing air quality within the Basin into conformity with the federal and State standards.

The air pollutants most relevant to air quality planning and regulation and that are most commonly measured and regulated: Carbon Monoxide (CO), Ozone (O_3), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2), and suspended particulate matter. Each of these is briefly described below along with their adverse health effects.

- Carbon Monoxide - CO, a colorless and odorless gas, interferes with the transfer of oxygen. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. Automobile exhausts release approximately 70 percent of the CO in the Basin. A substantial amount also comes from burning wood in fireplaces and wood stoves. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. The highest CO concentrations measured in the Basin are typically recorded during the winter months.

- Ozone - O3, a colorless toxic gas, is the chief component of urban smog. O3 enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. Although O3 is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NOx) in the presence of

sunlight.1 ROG and NOx are primarily emitted from automobiles and industrial sources. O3 is present in relatively high concentrations within the Basin, particularly in inland areas, and the damaging effects of photochemical smog are generally related to the concentration of O3. Highest O3 concentrations occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies.

- Nitrogen Dioxide - NO2, a reddish-brown gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like O3, NO2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO2 are collectively referred to as NOx and are major contributors to O3 formation. NO2 also contributes to the formation of PM10 (see discussion of suspended particulate matter below).

- Sulfur Oxides - Sulfur oxides, primarily SO2, are a product of high-sulfur fuel combustion. The main sources of SO2 are coal and oil used in power stations, in industries, and for domestic heating. SO2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO2 concentrations have been reduced to levels well below the State and national standards, but further reductions in emissions are needed to attain compliance with standards for PM10, of which SO2 is a contributor.

- Suspended Particulate Matter - Particulate matter pollution consists of very small liquid and solid particles suspended in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when industry and gases emitted from motor vehicles undergo chemical reactions in the atmosphere. PM10 and PM2.5 represent fractions of particulate matter. PM10 refers to particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair. PM2.5 refers to particulate matter that is 2.5 microns or less in diameter. Major sources of PM10 include motor vehicles; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning, industrial sources, windblown dust from open lands, and atmospheric chemical and photochemical reactions. PM2.5 results primarily from diesel fuel combustion (from motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves.

- In addition, PM2.5 is formed in the atmosphere from gases such as SO2, NOx, and reactive organic gas (ROG). PM10 and PM2.5 pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM10 and PM2.5 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause

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1 *ROG and NO_X are emitted from automobiles and industrial sources.*

lung damage directly. Whereas, larger particles tend to collect in the upper portion of the respiratory system, PM2.5 particles are so tiny that they can penetrate deeper into the lungs and damage lung tissues.2 Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

- Toxic Air Contaminants (TAC) - TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

  Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-hirds of the cancer risk from TACs (based on the statewide average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The USEPA has adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially. These go into effect in June 2006.

Climate

The proposed project site is located in the City of Los Angeles. The annual average temperature ranges from 47 to 75 degrees Fahrenheit (°F), although temperatures exceed 100°F on an occasional basis. The area also experiences a typical daily wind pattern that is a daytime onshore sea breeze (from the west) and a nighttime land breeze. This regime is broken only by occasional winter storms and infrequent strong northeasterly (from the northeast) Santa Ana winds from the mountains and deserts north of the Basin. On most spring and early summer days, the daily wind patterns flush much of the Basin of high levels of air pollutants. From late summer through the winter months, the flushing is less pronounced because of lighter wind speeds.

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[2] *The NAAQS for $PM_{2.5}$ was adopted in 1997. Presently no methodologies for determining impacts relating to $PM_{2.5}$ have been developed or adopted by federal, State, or regional agencies. The State standard for PM_{10} is more stringent than the federal $PM_{2.5}$ standard.*

Existing Regional Air Quality

The entire Basin is designated as a federal-level non-attainment area for ozone (extreme), CO, and PM_{10}. On November 15, 1995, the Basin was re-designated from non-attainment to attainment for nitrogen dioxide (NO_2) a pure form of NO_x. The Basin is a State-level non-attainment area for ozone, CO (Los Angeles County only), and PM_{10}.

In an effort to monitor the various concentrations of air pollutants throughout the Basin, the SCAQMD maintains monitoring stations throughout the Basin. The project site is located within Source Receptor Area (SRA) 2, which covers the northwest coastal Los Angeles County area. Ambient air pollutant concentrations within SRA 2 are monitored at the Veterans Administration building in West Los Angeles. Of the air pollutants discussed previously, only ambient concentrations of ozone and CO are monitored in SRA 2. Table IV.C-1 (Summary of Ambient Air Quality in the Project Vicinity) identifies the national and State ambient air quality standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured within SRA 2 through the period of 2001 to 2003.

Table IV.C-1
Summary of Ambient Air Quality in the Project Vicinity

Emissions Source	Year		
	2002	2003	2004
SRA 2- Northwest Coastal Los Angeles County			
Ozone			
Maximum 1-hour concentration measured	0.118 ppm	0.134 ppm	0.107 ppm
Days exceeding national 0.12 ppm 1-hour standard	0	1	0
Days exceeding State 0.09 ppm 1-hour standard	1	11	5
Maximum 8-hour concentration	0.077 ppm	0.104 ppm	0.089 ppm
Days exceeding national 0.08 ppm 8-hour standard	0	1	1
Carbon Monoxide (CO)			
Maximum 1-hour concentration measured	4.0 ppm	N/A	N/A
Number of days exceeding federal 35.0 ppm 1-hour standard	0	N/A	N/A
Number of days exceeding State 20.0 ppm 1-hour standard	0	N/A	N/A
Maximum 8-hour concentration measured	2.73 ppm	2.79 ppm	2.33 ppm
Number of days exceeding federal 9.5 ppm 8-hour standard	0	0	0
Number of days exceeding State 9.0 ppm 8-hour standard	0	0	0

Note: *ppm = parts per million by volume*
$\mu g/m^3$ = micrograms per cubic meter
N/A = 1-hour CO Concentrations were not available from the ARB at the time of publication of this EIR.

Source: *California Air Resources Board, January 2005.*

Existing Local Air Quality

Land uses in the vicinity of the project site include commercial and residential uses. The project site and surrounding area are characterized by high-rise buildings consisting of hotel, office, and multi-family residential land uses. Immediately to the north of the site is the Westin Century Plaza Hotel & Spa, a 19-story luxury hotel with 727 rooms and significant banquet, spa and recreational facilities. To the north and west of the Century Plaza Hotel are Constellation Place and the Sun America building, two high-rise office towers. The Westfield Shopping Town Century City, a regional mall and entertainment complex, is also in the vicinity of the project site to the north.

Multi-family residential uses are located adjacent to the project site, just north and south of Olympic Boulevard. Specifically, to the southeast of the site are the Park Place condominiums, a low-rise, medium-density housing development. To the west of the project site are the Century Woods condominiums, another low-rise, medium-density residential development located at the northeast corner of Century Park West and Olympic Boulevard. Finally, immediately across Olympic Boulevard and to the south of the site lies the 34-story Fox Plaza office tower which is 492 feet in height. Local emissions sources include stationary activities, such as space and water heating, landscape maintenance, and consumer products, and mobile sources, primarily automobile and truck traffic.

Motor vehicles are the primary source of pollutants in the proposed project vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or State standards for CO are termed CO "hotspots". Section 9.4 of the SCAQMD's CEQA Air Quality Handbook identifies CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. The SCAQMD defines typical sensitive receptors as residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to the existing ambient CO air concentrations. For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and approved by the SCAQMD. The simplified model is intended as a screening analysis in order to identify a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations.

Maximum existing CO concentrations calculated for the intersections evaluated in the traffic report prepared Overland Traffic Consultants, included as Appendix C to this Draft EIR, which may have receptors in close proximity to the roadways. For the purpose of this analysis, receptors are any of the

sensitive receptor types identified previously, as well as any location where people would be required (as in a work site) to be located for one to eight hours. The results of these calculations are presented in Table IV.C-2 (Existing Localized Carbon Monoxide Concentrations) for representative receptor locations at 25, 50, and 100 feet from each roadway. These distances were selected because they represent locations where a person may be living or working for more than one or eight hours at a time. The National 1-hour standard is 35.0 parts per million (ppm), and the State 1-hour standard is 20.0 ppm. The 8-hour National and State standards are 9.5 ppm and 9.1 ppm, respectively.

As shown, under worst-case conditions, existing CO concentrations near the 18 intersections analyzed in the traffic report do not exceed the national or State 1-hour and 8-hour ambient air quality standards at 25, 50 or 100 feet from the roadways. Therefore, sensitive receptors in close proximity to these 18 intersections are currently not exposed to substantial pollutant concentrations under existing conditions.

Table IV.C-2

Existing Localized Carbon Monoxide Concentrations

Intersection	CO Concentrations in Parts per Million[a,b]					
	25 Feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Avenue of the Stars & Santa Monica Blvd. (north bound)	7.3	3.5	7.0	3.3	6.6	3.0
Avenue of the Stars & Santa Monica Blvd. (south bound)	8.1	4.1	7.6	3.7	7.1	3.3
Avenue of the Stars & Constellation Boulevard	7.4	3.4	7.0	3.2	6.7	3.0
Avenue of the Stars & Olympic Boulevard (west bound)	7.3	3.4	6.9	3.1	6.6	2.9
Avenue of the Stars & Olympic Boulevard (east bound)	7.1	3.2	6.8	3.0	6.5	2.8
Avenue of the Stars & Galaxy Way	7.0	3.2	6.8	3.0	6.5	2.8
Avenue of the Stars & Empyrean Way	6.8	3.1	6.6	2.9	6.4	2.7
Avenue of the Stars & Pico Boulevard	9.3	4.8	8.6	4.3	7.8	3.8
Santa Monica Boulevard (south bound) & Century Park West	6.9	3.1	6.7	2.9	6.4	2.8
Constellation Boulevard & Century Park West	6.6	2.9	6.4	2.8	6.2	2.6
Olympic Boulevard & Century Park West	12.1	6.7	10.7	5.8	9.3	4.8
Santa Monica Boulevard (north bound) & Century Park East	7.3	3.4	7.0	3.2	6.7	3.0
Santa Monica Boulevard (south bound) & Century Park East	7.7	3.8	7.3	3.5	6.9	3.2
Constellation Boulevard & Century Park East	7.4	3.4	7.0	3.2	6.7	2.9
Olympic Boulevard & Century Park East	9.7	5.1	8.9	4.5	8.0	3.9
Pico Boulevard & Century Park East	8.0	3.9	7.5	3.5	7.1	3.2
Pico Boulevard & Motor Avenue	10.8	5.8	9.6	5.0	8.6	4.3
Pico Boulevard & Beverly Glen Boulevard	8.0	3.9	7.5	3.5	7.0	3.2
Pico Boulevard & Overland Avenue	11.0	6.0	9.9	5.2	8.8	4.4

[a] *National 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.*

[b] *National 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.*

Source: Christopher A. Joseph and Associates 2005. Calculation print out sheets are provided in Appendix C.
Traffic Information Source: Overland Traffic Engineers, 2005

Existing Site Emissions

The project site contains a former hotel building. As shown in Table IV.C-3, the operation of the former hotel would generate the following emissions in 2009, the same year as the first operational year of the proposed project.

Table IV.C-3
St. Regis Hotel Daily Operational Emissions

Emissions Source	Emissions in Pounds per Day				
	ROG	NOx	CO	SOx	PM_{10}
Water and Space Heating	0.10	1.44	0.57	-	0.00
Landscape Maintenance	0.08	0.01	0.58	0.00	0.00
Consumer Products	0.00	-	-	-	-
Motor Vehicles	20.96	23.00	239.24	0.17	25.84
Total Emissions	***21.06***	***24.45***	***240.39***	***0.17***	***25.84***
Thresholds (lb/day)	55.0	55.0	550.0	150.0	150.0
Significant Impact	***NO***	***NO***	***NO***	***NO***	***NO***

Source: Urbemis 2002. Christopher A. Joseph & Associates, 2005. Computer sheets are provided in Appendix C.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, a project would have a significant effect on the environment if it would:

(a) Conflict with or obstruct implementation of the applicable air quality plan;

(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including release in emissions which exceed quantitative thresholds for ozone precursors);

(d) Expose sensitive receptors to substantial pollutant concentrations; or

(e) Create objectionable odors affecting a substantial number of people.

As discussed in the Initial Study (see Appendix A to this Draft EIR), the proposed project would have no impact with respect to Threshold (e) listed above. As such, no further analysis of this topic is required (see also Section IV.A of this Draft EIR).

The City prepared the Draft L.A. CEQA Thresholds Guide in 1998. For air quality, the City has not adopted specific citywide significance thresholds but instead relies on significance thresholds identified by the SCAQMD in its CEQA Air Quality Handbook (SCAQMD CEQA Handbook), as revised in November 1993 and approved by the SCAQMD's Board of Directors.

The SCAQMD's emission thresholds apply to all federally regulated air pollutants except lead, which is not exceeded in the Basin. As such, construction and operational emissions associated with the proposed project would be significant if they exceed the thresholds shown in Table IV.C-4.

Table IV.C-4
SCAQMD's Emission Thresholds of Significance

Pollutant	Construction		Operation
	pounds/day	tons/quarter	pounds/day
Carbon Monoxide (CO)	550	24.75	550
Sulfur Oxides (SO_x)	150	6.75	150
Particulate Matter (PM_{10})	150	6.75	150
Nitrogen Oxides (NO_x)	100	2.5	55
Reactive Organic Gases (ROG)	75	2.5	55
Source: SCAQMD CEQA Air Quality Handbook, 1993.			

Carbon monoxide emissions from a project are significant if they cause CO concentrations at impacted locations to exceed a national or State standard or, in an area that already exceeds a standard, to increase CO concentrations by more than one part per million (ppm) averaged over one hour or 0.45 ppm averaged over eight hours.

Project Impacts

Construction

During construction, three basic types of activities would be expected to occur and generate emissions: (1) the existing hotel would be demolished; (2) the project site would be prepared and graded to accommodate the subterranean parking facility, building footings and utilities; and (2) the proposed building would be constructed. Construction of the proposed project may result in regional or local impacts and include airborne dust from grading, excavation and soil exporting as well as gaseous emissions from the use of heavy equipment, delivery and dirt hauling trucks, employee vehicles, and paints and coatings. Regional pollutants, such as ozone, are those where emissions from many sources combine in the atmosphere and impact areas far removed from the emission sources. Local pollutants are

those where the impacts occur very close to the source. Examples of local pollutants include CO or large particulate matter (fugitive dust) that settles in the vicinity of the source and does not become airborne.

The analysis of daily construction emissions has been prepared utilizing the URBEMIS 2002 computer model recommended by the SCAQMD. Due to the construction time frame and the normal day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with the proposed construction activities. Nonetheless, Table IV.C-4 identifies daily emissions that are estimated to occur on peak construction days, such as when the entire site is being graded and when residential and commercial construction is occurring simultaneously. Construction is anticipated to occur over 22 days each month for approximately two and a half years. Peak day emissions are shown in Table IV.C-4. These tables are based on the analysis described below.

Demolition

The demolition of the existing building would be generally approached floor-by-floor, starting from the top floor of the building and progressing downward. The existing exterior walls would remain in place during "soft" demolition work (i.e., interior walls and equipment). Light-duty excavators with hydraulic breakers would be then be used to break up concrete and steal floors and walls. The elevator shafts in the existing building would be used as chutes to drop debris from the upper floors. The debris would be caught by a diaphragm designed to deflect the material out onto one of three levels located equidistantly throughout the building. The demolition equipment would be mostly hidden behind scaffolding and scrim fabric at the top 250 feet of the building.

The portions of the building that extend from the ground to approximately 50 feet high would be demolished with heavy equipment, including conventional excavators with hydraulic breaking, and shearing and pulverizing attachments. The building foundations would then be removed with heavy equipment. Demolition of the existing building would occur over an approximately 12-month period, which would consist of three to four months for removal of soft finishes, six to seven months for removal of the above-grade structure, and two months for removal of the below-grade structure. Approximately two to three months overlap is anticipated during concurrent activities. During demolition activities, trucks would be staged offsite in a location determined by the City of Los Angeles Bureau of Street Services. It is anticipated that approximately 20 daily truck loads would be needed during demolition activities.

Grading and Excavation

Soil may be disturbed during grading and excavation or while storing project-related equipment. SCAQMD Rule 403 governs fugitive dust emissions from construction projects. This rule sets forth a list of control measures that must be undertaken for all construction projects to insure that no dust emissions from the project are visible beyond the property boundaries. SCAQMD Rule 402 (Nuisance) also would apply to the proposed project. Most of the fugitive dust associated with construction is comprised of particles larger than 10 microns in diameter. While these larger particles settle out quickly and do not

cause the health effects associated with the smaller sized particles (PM_{10} and $PM_{2.5}$), they can damage plants and property sufficiently to qualify as a nuisance. Rule 402 prohibits visible dust emissions from extending beyond the project boundaries. The same mitigation measures used to control PM_{10} also control the larger particles.

Equipment

As discussed above, construction of the proposed project would be divided into two activities, each with its own type and amount of equipment. The first activity, which requires the largest amount of heavy equipment, would extend for approximately four months. This activity constitutes the peak construction period for air quality impacts. The equipment listed for the first activity includes two excavators, 1 rubber tired loader, 1 skid steer loader, 1 bulldozer, 3 backhoes, 1 mobile crane and 1 auger. It was assumed that these pieces of equipment would run for a maximum of eight hours per day.

Trucks

As discussed above, the existing hotel building would be demolished as a part of the proposed project. This would entail the removal of approximately 3,706,560 cubic yards of waste. Due to the floor-by-floor demolition process that would take place, the demolition of the existing hotel would require approximately 26 truck trips[3] (round trips) per day with each truck hauling 20 cubic yards of waste. In addition, this analysis assumes that approximately 36,700 cubic yards of soil would be exported during excavation of the subterranean parking facility. This would require approximately 20.8 truck trips[4] (truck trips) per day with each truck hauling 20 cubic yards of soil for a total of 88 days. Trips were assumed to average 20 miles each way.

Employee Vehicles

Different workers would be on the project site at different phases of construction. This analysis assumes that there would be 0.32 workers vehicle trips per 1,000 square feet of development per day during the peak construction period. Emission factors are from the CARB emission model, EMFAC2002, using summertime conditions.

Sensitive Receptors

The nearest sensitive receptors are the multi-family residential uses located near and adjacent to the

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[3] *URBEMIS 2002 calculates the number of truck trips per day based on the maximum amount of material to be removed during demolition per day divided the amount of material the average truck can hold.*

[4] *URBEMIS 2002 calculates the number of truck trips per day based on the maximum amount of material to be removed during excavation per day divided by the amount of material the average truck can hold.*

project site, just north and south of Olympic Boulevard. Because some people who occupy these units may be particularly sensitive to air pollutants, including fugitive dust, these existing homes are defined by the SCAQMD as sensitive receptors and could be significantly impacted by dust. Protection would be afforded through the SCAQMD's Nuisance Regulation, Rule 402, which requires that the project developer apply sufficient mitigation measures to prevent a nuisance from occurring off the premises, and by Rule 403, Fugitive Dust, which requires that there be no visible emissions beyond the property line. Implementation of these regulations would protect sensitive receptors when grading occurs in the vicinity of the multi-family homes.

As shown in Table IV.C-5, construction related daily emissions would not exceed SCAQMD significance thresholds for ROG, NO_x, CO, SO_x and PM_{10} during construction. Therefore, the potential air quality impact associated with the construction of the proposed project would be less than significant.

Operations

Regional Emissions

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities on the project site after occupation. Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices as well as fireplaces, the operation of landscape maintenance equipment, and the use of consumer products. Mobile emissions would be generated by the motor vehicles traveling to and from the project site.

The proposed project incorporates a number of design characteristics that would help to reduce the operational emissions that would otherwise be generated by the project. These characteristics of the proposed project include the following:

- Provide direct pedestrian connections;
- Provide lighting for safety along pedestrian and bicycle paths; and
- Provide shade trees to shade sidewalks to encourage pedestrian activity on hot days.

Table IV.C-5
Estimated Peak Daily Construction Emissions

Emissions Source	Peak Day Emissions in Pounds per Day				
	ROG	NOx	CO	SOx	PM10
Existing Building Demolition					
Fugitive Dust	-	-	-	-	5.99
Off-Road Diesel	0.00	0.00	0.00	-	0.00
On-Road Diesel	0.99	22.29	3.71	0.32	0.51
Worker Trips	0.00	0.00	0.00	0.00	0.00
Total Emissions	***0.99***	***22.29***	***3.71***	***0.32***	***6.40***
SCAQMD Thresholds	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**
Significant Impact?	NO	NO	NO	NO	NO
Site Excavation and Grading					
Fugitive Dust	-	-	-	-	10.00
Off-Road Diesel	6.24	38.59	52.16	-	1.33
On-Road Diesel	0.71	15.92	2.65	0.23	0.36
Worker Trips	0.04	0.02	0.46	0.00	0.01
Total Emissions	***6.99***	***54.53***	***55.27***	***0.23***	***11.70***
SCAQMD Thresholds	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**
Significant Impact?	NO	NO	NO	NO	NO
Construction					
Building Construction Off-Road Diesel	11.18	73.68	90.49	-	2.81
Building Construction Worker Trips	0.38	0.22	4.614	0.00	0.07
Arch. Coatings Off-Gas	63.01	-	-	-	-
Arch. Coatings Worker Trips	0.38	0.22	4.61	0.00	0.07
Asphalt Off-Gas	0.00	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00
Total Emissions	***74.94***	***74.12***	***99.71***	***0.00***	***2.95***
SCAQMD Thresholds	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**
Significant Impact?	NO	NO	NO	NO	NO

Source: Urbemis 2002. Christopher A. Joseph & Associates, 2005. Calculation sheets are provided in Appendix C.

When completed, the proposed project would consist of 147 condominium units, restaurant use and additional amenities. The primary source of operational emissions would be vehicle travel to and from the project site. Based on the traffic report for the project, there would be 2,930 total daily trips.[5] However, the existing 297 room St. Regis Hotel generates 2,970 daily vehicle trips. Therefore, the proposed project would actually generate 40 less trips than the St. Regis Hotel. The proposed project

[5] *The 2,930 trips used in this air quality analysis has been rounded up from 2,929.85 trips, as discussed in Section IV.I-21 (Land Use Planning) of this Draft EIR.*

would also include the use of fireplaces which would be located in each of the residential units, the restaurant facility and other proposed amenities. The use of these fireplaces, as well as water heaters, would result in small amounts of gaseous emissions from the use of natural gas.

The analysis of daily operational emissions has been prepared utilizing the URBEMIS 2002 computer model recommended by the SCAQMD. The results of these calculations, and associated SCAQMD thresholds, are presented in Table IV.C-6 and take into consideration the characteristics of the proposed project discussed above. In addition, the SCAQMD allows the existing land use emissions to be subtracted from the proposed project emissions. As shown, the proposed project would generate daily emissions of ROG, NO_x, CO, SO_x and PM_{10} which would not exceed the SCAQMD thresholds of significance. Therefore, impacts associated with regional operational emissions from the proposed project would be less than significant.

Table IV.C-6
Project Daily Operational Emissions

Emissions Source	Emissions in Pounds per Day				
	ROG	NOx	CO	SOx	PM_{10}
Water and Space Heating	0.12	1.59	0.67	-	0.00
Landscape Maintenance	0.25	0.02	1.75	0.00	0.01
Motor Vehicles	21.19	24.16	258.80	0.15	23.36
Total Proposed Emissions	***21.56***	***25.77***	***261.22***	***0.15***	***23.37***
Existing Emissions	***21.06***	***24.45***	***240.39***	***0.17***	***25.84***
Net Emissions	***0.50***	***1.32***	***20.83***	***0.02***	***-2.47***
Thresholds (lb/day)	55.0	55.0	550.0	150.0	150.0
Significant Impact	***NO***	***NO***	***NO***	***NO***	***NO***

Source: Urbemis 2002. Christopher A. Joseph & Associates, 2005. Computer sheets are provided in Appendix C.

Local CO Concentrations

Motor vehicles are the primary source of pollutants in the project vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. For this analysis, CO concentrations were calculated based on the simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and utilized by the SCAQMD. The results of these calculations are presented in Table IV.C-7. As shown therein, future CO concentrations near the study intersections would not exceed national or State ambient air quality standards. Therefore, CO hotspots would not occur near these intersections in the future with operation of the proposed project. Therefore, impacts related to local CO concentrations at these intersections would be less than significant.

Table IV.C-7
Future (2009) Localized Carbon Monoxide Concentrations

Intersection	CO Concentrations in Parts per Million[a,b]					
	25 Feet		50 Feet		100 Feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Avenue of the Stars & Santa Monica Blvd. (north bound)	7.3	3.6	7.0	3.3	6.6	3.0
Avenue of the Stars & Santa Monica Blvd. (south bound)	9.0	5.2	8.3	4.6	7.6	3.9
Avenue of the Stars & Constellation Boulevard	7.8	3.7	7.3	3.4	6.9	3.1
Avenue of the Stars & Olympic Boulevard (west bound)	7.1	3.2	6.8	3.0	6.5	2.8
Avenue of the Stars & Olympic Boulevard (east bound)	6.9	3.1	6.7	3.0	6.4	2.8
Avenue of the Stars & Galaxy Way	6.8	3.1	6.6	2.9	6.4	2.7
Avenue of the Stars & Empyrean Way	6.7	3.0	6.5	2.8	6.3	2.7
Avenue of the Stars & Pico Boulevard	9.5	4.9	8.8	4.4	7.9	3.8
Santa Monica Boulevard (south bound) & Century Park West	9.4	5.2	8.6	4.5	7.8	3.9
Constellation Boulevard & Century Park West	6.4	2.8	6.3	2.7	6.2	2.6
Olympic Boulevard & Century Park West	10.8	5.8	9.7	5.0	8.6	4.3
Santa Monica Boulevard (north bound) & Century Park East	7.1	3.5	6.8	3.3	6.5	3.0
Santa Monica Boulevard (south bound) & Century Park East	8.3	5.0	7.8	4.4	7.2	3.8
Constellation Boulevard & Century Park East	7.1	3.3	6.8	3.0	6.5	2.8
Olympic Boulevard & Century Park East	9.5	5.0	8.7	4.4	7.9	3.8
Pico Boulevard & Century Park East	8.0	3.9	7.5	3.5	7.0	3.2
Pico Boulevard & Motor Avenue	9.9	5.3	9.0	4.6	8.1	3.9
Pico Boulevard & Beverly Glen Boulevard	7.6	4.6	7.2	4.1	6.8	3.6
Pico Boulevard & Overland Avenue	9.9	5.2	9.0	4.6	8.2	4.0

[a] *National 1-hour standard is 35.0 parts per million. State 1-hour standard is 20.0 parts per million.*
[b] *National 8-hour standard is 9.5 parts per million. State 8-hour standard is 9.1 parts per million.*

Source: Christopher A. Joseph and Associates 2005. Calculation worksheets are provided in Appendix C.
Traffic Information Source: Overland Traffic Consultants, 2005.

AQMP Consistency

A significant impact may occur if the project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. The proposed project site is located within the South Coast Air Basin (Basin), within the jurisdiction of the South Coast Air Management District (SCAQMD). The SCAQMD has adopted criteria for consistency with regional plans and the regional AQMP in its CEQA Air Quality Handbook (Handbook). These include: 1) identifying whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations and 2) identifying whether the project would exceed the assumptions utilized in preparing the AQMP. A significant impact may occur if a project is inconsistent with the growth assumptions upon which the regional AQMP was based.

The future air quality levels projected in the 2003 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the Regional Comprehensive Plan and Guide (RCPG), which was adopted in March 1996. The AQMP also assumes that development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation.

Another measurement tool used in determining consistency with the AQMP is to determine how a project accommodates the expected increase in population or employment. Generally, if a project is planned in a way that it results in the minimization of Vehicle Miles Traveled (VMT) both within the project and the community in which it is located, and consequently the minimization of air pollutant emissions, that aspect of the project is consistent with the AQMP.

The proposed project would not conflict with any of the applicable policies of the City of Los Angeles General Plan and would work to implement City policies with regard to locating residential development near pedestrian oriented facilities and infrastructure. In addition, as discussed in Section IV.I (Land Use), the project site is located within the West Los Angeles Transportation Improvement and Mitigation Specific Plan Area (TIMP). The intent of the TIMP is to work with local jurisdictions and agencies, through planning and funding, to ultimately expedite transit flow. As discussed above, any project that reduces the amount of VMT is considered consistent with the AQMP. Therefore, the proposed project would be consistent with the AQMP and would result in a less-than-significant impact.

CUMULATIVE IMPACTS

Construction Impacts

The City has identified 66 related projects within close proximity to the project site. Construction of these projects could result in additional cumulative impacts on local air quality, particularly fugitive dust impacts, if all were constructed simultaneously. However, cumulative air quality impacts from

construction, based on SCAQMD guidelines, are not analyzed in a manner similar to project-specific air quality impacts. Cumulative methods are different than the methodology used throughout this EIR in which all-foreseeable future development within a given service boundary or geographical area is predicted and quantified. Instead, the SCAQMD's recommends that cumulative air quality analysis methods be based on performance standards and emission reduction targets necessary to attain the federal and State air quality standards identified in the AQMP, which was established to attain future air quality standards. If an individual project is consistent with the AQMP performance standards, the project's cumulative impact should be considered less than significant. Based on the analysis provided earlier in this air quality analysis section, the proposed project would be consistent with the AQMP performance standards and consequently, would not result in a significant cumulative air quality impact.

Regional Operational Impacts

The 2003 AQMP is based on population growth through the year 2025 developed by each of the cities and counties in the region and incorporated by SCAG into the regional growth projections that are the basis of the AQMP emissions projections. All projects in the region contribute to regional pollution and the emissions associated with these projects are modeled by the SCAQMD to determine future air quality without additional controls. If pollutant concentrations are shown by the model to exceed State or national ambient air standards, the SCAQMD, SCAG and CARB develop additional control strategies to offset emissions and reduce concentrations to below the standards. The project site is in the Los Angeles City sub-area. The City has projected growth to the year 2025 in the 2003 AQMP. SCAG has determined that as long as the new population accommodated by a project is within the total population forecast for the sub-area for the build-out year, the proposed project is consistent with the AQMP and cumulative impacts are offset by the AQMP. The proposed project is not anticipated to cause significant population growth (see Section IV.L, Population and Housing, of this EIR). As such, the proposed project would be consistent with the total population forecast in the AQMP. Therefore, the impact of the proposed project, in conjunction with other projected growth, would not be cumulatively considerable with respect to regional emissions.

Local Operational Impacts

The traffic study for the project contains a list of proposed new projects in the vicinity of the project site. Traffic from these related projects was included in the analysis of local traffic impacts and potential carbon monoxide hotspots. Since future one-hour and eight-hour CO concentrations would be below national and State ambient air standards when the traffic from the proposed project and the other related projects is included in the analysis, impacts of the proposed project in conjunction with related projects would not be cumulatively considerable with respect to local air quality.