

3.2 AIR QUALITY

3.2.1 Introduction

Section 3.2 of the FEIR (Section 3.2-1 thru Section 3.2-5), incorporated by reference herein as though fully set forth, describes the existing air quality of the project area, which will not be repeated here. The environmental setting, including descriptions of existing air quality data and sensitive receptors, both on site and in the vicinity of the project site, remains as described in the FEIR. The existing regional air quality and attainment status for the Basin have been updated in this section.

This section analyzes impacts of the revised project associated with potential conflicts with or obstruction of implementation of the applicable air quality plan, potential violations of any air quality standard or potentially substantial contributions to an existing or projected air quality violation, potential exposure of sensitive receptors to substantial pollutant concentrations; resulting in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors), and potential for creating objectionable odors affecting a substantial number of people. Potential impacts to air quality due to the revised project are evaluated, based on project data and modeling performed using the URBEMIS 2007 computer model. The Initial Study for the original project identified air quality impacts as potentially significant.

Data used to prepare this section were taken from various sources, including the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook*, the SCAQMD's *Final—Methodology to Calculate Particulate Matter (PM)_{2.5} and PM_{2.5} Significance Thresholds*, and the 2007 Air Quality Management Plan (AQMP), as amended.³

Two comment letters were received for the revised project. A comment letter from the Linda Vista—Annandale Associated commented that the project must comply with the newly adopted regulatory framework on air quality and related global warming gases. Another letter received from the South Coast Air Quality Management District requested that the project identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project.

3.2.2 Environmental Setting

As described on pages 3.2-1 through 3.2-3 of the FEIR, the City of Pasadena is located within the South Coast Air Basin (Basin). This area includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. 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 are usually subject to a permit to operate from the SCAQMD, occur at specific identified locations, and are usually associated with manufacturing and industry. Area sources are widely distributed and produce many small emissions, and they do not require permits to operate from

³ South Coast Air Quality Management District (SCAQMD). 2007. *Air Quality Management Plan*.

the SCAQMD. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of specific pollutants, referred to as “criteria pollutants,” in order to protect public health. The national and state ambient air quality standards have been set at concentration levels to protect the most sensitive persons from illness or discomfort with a margin of safety. Applicable ambient air quality standards and existing air quality levels are listed below in Table 3.2-1.

Table 3.2-1 Summary of Ambient Air Quality in the Project Vicinity			
<i>Air Pollutants Monitored Within SRA 8— West San Gabriel Valley Area^a</i>	<i>Year</i>		
	<i>2004</i>	<i>2005</i>	<i>2006</i>
Ozone			
Maximum 1-hour concentration measured	0.130 ppm ^b	0.145 ppm	0.151ppm
Number of days exceeding national 0.12 ppm 1-hour standard	1	2	5
Number of days exceeding state 0.09 ppm 1-hour standard	27	13	26
Maximum 8-hour concentration measured	0.102ppm	0.114 ppm	0.117ppm
Number of days exceeding national 0.08 ppm 8-hour standard	10	5	7
Number of days exceeding state 0.07 ppm 8-hour standard	31	12	24
Nitrogen Dioxide (NO₂)			
Maximum 1-hour concentration measured	0.117	0.104	0.120
Number of days exceeding state 0.25 ppm 1-hour standard	0	0	0
Annual average	0.027	0.024	0.025
Does measured annual average exceed federal 0.0534 ppm annual average standard?	No	No	No
Carbon Monoxide (CO)			
Maximum 8-hour concentration measured	3.46 ppm	2.83 ppm	2.80 ppm
Number of days exceeding national 9.5 ppm 8-hour standard	0	0	0
Number of days exceeding state 9.0 ppm 8-hour standard	0	0	0
Fine Particulate Matter (PM_{2.5})			
Maximum 24-hour concentration measured	59.4	62.8	45.8
Number of days exceeding federal 65.0 µg/m ³ 24-hour standard ^c	0	0	1
Respirable Particulate Matter (PM₁₀)^d			
Maximum 24-hour concentration measured	<u>74.0 µg/m³</u>	<u>92.0 µg/m³</u>	<u>71.0 µg/m³</u>
Number of days exceeding federal 150 µg/m ³ 24-hour standard	<u>0</u>	<u>0</u>	<u>0</u>
Number of days exceeding state 50 µg/m ³ 24-hour standard	<u>6</u>	<u>5</u>	<u>10</u>
Sulfur Dioxide (SO₂)^d			
Maximum 24-hour concentration measured	<u>0.009 ppm</u>	<u>0.006 ppm</u>	<u>0.004 ppm</u>
Number of days exceeding federal 0.14 ppm 24-hour standard	<u>0</u>	<u>0</u>	<u>0</u>
Number of days exceeding state 0.04 ppm 24-hour standard	<u>0</u>	<u>0</u>	<u>0</u>

SOURCE: California Air Resources Board 2004, 2005, 2006

^a Ambient concentrations of PM₁₀, SO₂, and lead are not monitored in SRA 8.

^b ppm = parts by volume per million of air

^c Federal PM_{2.5} 24-hour standard was changed to 35 µg/m³ in 2006.

^d Ambient concentrations of PM₁₀ and SO₂ were taken from SRA 7—East San Fernando Valley Area located in Burbank, CA

Greenhouse Gas Emissions and Climate Change

The natural “greenhouse effect” allows the earth to remain warm and sustain life. Greenhouse gases trap the sun’s heat in the atmosphere, like a blanket, and help determine the existing climate. Examples of greenhouse gases include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. The increased consumption of fossil fuels (wood, coal, gasoline, etc.) has substantially increased atmospheric levels of greenhouse gases. As atmospheric concentrations of greenhouse gases rise, so do temperatures. Over time this rise in temperatures would result in climate change. Theories concerning climate change and global warming existed as early as the late 1800s. By the late 1900s that understanding of the earth’s atmosphere had advanced to the point where many climate scientists began to accept that the earth’s climate is changing. Today, many climate scientists agree that some warming has occurred over the past century and will continue through this century.

The United Nations Intergovernmental Panel on Climate Change predicts that changes in the earth’s climate will continue through the 21st century and that the rate of change may increase significantly in the future because of human activity. Many researchers studying California’s climate believe that changes in the earth’s climate have already affected California and will continue to do so in the future.

Projected future climate change may affect California in a variety of ways. Public health can suffer due to greater temperature extremes and more frequent extreme weather events, increases in transmission of infectious disease, and increases in air pollution. Agriculture is especially vulnerable to altered temperature and rainfall patterns, and new pest problems. Forest ecosystems would face increased fire hazards and would be more susceptible to pests and diseases. The Sierra snow pack that functions as California’s largest reservoir could shrink by a third by 2060, and to half its historic size by 2090. Runoff that fills reservoirs could start in midwinter, not spring, and rain falling on snow could trigger more flooding. The California coast is likely to face a rise in sea level that could threaten its shorelines. Sea level rise and storm surges could lead to flooding of low-lying property, loss of coastal wetlands, erosion of cliffs and beaches, saltwater contamination of drinking water, and damage to roads, causeways, and bridges.

On July 22, 2002, Governor Gray Davis signed AB 1493, which required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Transportation is California’s largest source of carbon dioxide, with passenger vehicles and light duty trucks creating more than 30 percent of total climate change emissions. This emissions reduction requirement applies to 2009 and later model year vehicles.

More recently, on September 27, 2006, Governor Arnold Schwarzenegger signed AB 32, which requires the ARB to monitor and reduce greenhouse gas emissions. Specifically, AB 32 requires the ARB to do the following:

- Establish a statewide greenhouse gas emissions cap for 2020, based on 1990 emissions by January 1, 2008
- Adopt mandatory reporting rules for significant sources of greenhouse gases by January 1, 2008

- Adopt a plan by January 1, 2009, indicating how emission reductions will be achieved from significant greenhouse gas sources via regulations, market mechanisms and other actions
- Adopt regulations by January 1, 2011, to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gases, including provisions for using both market mechanisms and alternative compliance mechanisms
- Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise ARB
- Ensure public notice and opportunity for comment for all ARB actions
- Prior to imposing any mandates or authorizing market mechanisms, requires ARB to evaluate several factors, including but not limited to: impacts on California's economy, the environment, and public health; equity between regulated entities; electricity reliability, conformance with other environmental laws, and to ensure that the rules do not disproportionately impact low-income communities
- Adopt a list of discrete, early action measures by July 1, 2007, that can be implemented before January 1, 2010, and adopt such measures

In California, the most common GHG is CO₂, which constitutes approximately 84 percent of all GHG emission. CO₂ emissions in California are mainly associated with in-state fossil fuel combustion and with fossil fuel combustion in out-of-state power plants supplying electricity to California. Other activities that produce CO₂ emissions include mineral production, waste combustion, and land use changes that reduce vegetation.

By percentage, the transportation sector is the largest contributor to greenhouse gas emissions in California, followed by residential and commercial energy use. California's transportation sector is heavily dependent upon oil, with petroleum-based fuels currently providing nearly all (96 percent) of California's transportation energy needs (California 2007). Transportation-related activities represent almost half (48 percent) of California's petroleum-based fuel consumption. Within the transportation sector, light vehicles (i.e., cars, light trucks, and motorcycles) account for about 60 percent of the petroleum-based energy consumption.

Models and methodologies used in this analysis evaluate and model aggregate emissions. With respect to the global impact of climate change, however, these models do not demonstrate how much these aggregate emissions relating to a particular project are "new" emissions specifically attributable to development pursuant to the proposed plan. For example, while motor vehicle greenhouse gas emissions are calculated below, many (and perhaps the large majority) of drivers who will be going to and from to the proposed development are already driving and generating greenhouse gas emissions in some other location, and they will effectively relocate those emissions as the project is developed. Further, as the revised project will reduce the overall number of seats within the Rose Bowl and not increase displacement events, it is assumed that vehicle trips will be substantially the same as the current level due to the fact that the revised project will not increase the number of events at the stadium.

Greenhouse gases would be emitted during both construction and operation of the revised project. The project would emit greenhouse gases during construction of the project from the operation of

construction equipment and from worker and building supply vendor vehicles. The largest source of greenhouse gas emissions associated with the project would be motor vehicle use as patrons of the Rose Bowl travel to and from the project site for UCLA football games and other displacement events. CO₂ emissions, the primary greenhouse gas from mobile sources, are directly related to the quantity of fuel consumed. Emissions during construction and operation were estimated using the URBEMIS2007 model. The project emissions of CO₂ for both construction and operation are shown in Table 3.2-2 below.

Table 3.2-2 CO₂ Emissions during Construction and Operation for the Proposed Project	
<i>Emissions Source</i>	<i>Emissions in Tons per Year</i>
	<i>CO₂</i>
Construction 2009	1,679.45
Construction 2010	2,583.26
Construction 2011	487.77
<i>Total Construction Emission</i>	<i>4,750.48</i>
Operation, Area Source	0.51
Operation, Motor Vehicle	10515.26
<i>Total Operation Emissions</i>	<i>10,515.77</i>

SOURCE: PBS&J 2007 (computer sheets are provided in Appendix B)

CO₂ emissions associated with the entire course of project construction over the 3-year construction period would be 4,750.48 tons. Mitigation measures MM 3.2-1 and MM 3.2-2 included in the Draft SEIR to reduce air quality impacts related to construction would reduce emissions of carbon dioxide during construction from worker trips and the construction equipment. In addition, mitigation that requires the use of alternative fuel when feasible would also reduce emissions from construction.

Based on project operational greenhouse gas emissions estimates, it is not anticipated that the project emissions alone will substantially add to the global inventory of greenhouse gas emissions. The operational emissions of greenhouse gas emissions from the project (10,515.77 tons), in relation to California's current greenhouse gas emissions (478.65 million tons, according to the 2004 inventory), would be 0.00002% at the buildout year 2011. Therefore, the quantitative analysis above indicates that the project's GHG emissions contributions would not be cumulatively considerable.

In addition, the project would comply with all applicable policies, ordinances, and regulations that would reduce greenhouse gas emissions. Measures that would reduce air quality impacts of the project would also reduce the cumulative contribution of the project to greenhouse gas emissions. As previously mentioned, the proposed project would not introduce new sources of greenhouse gas emitters, nor would the proposed project create a new use that would attract vehicle trips that otherwise would not occur. The proposed project would be a continuation of an existing use, with similar or reduced vehicle trips occurring than with existing conditions. The vehicle trips generated by the proposed project have been included in the SCAQMD's 2007 AQMP, the City of Pasadena's General Plan, and SCAG's Regional Transportation Plan. The proposed revised project is consistent with all adopted land use

designations for the site and other than temporary construction emissions, would not increase the emissions of greenhouse gases within the City or Pasadena as well as the Arroyo Verdugo and San Gabriel Valley subregions beyond those that would occur without the proposed project. Because the project's contribution to greenhouse gas emissions in California would low by comparison to a comparable level of development undertaken in a more traditionally suburban location and density, project impacts to greenhouse gas emission would be considered less than significant and the project's contribution to cumulative greenhouse gas emissions would be considered less than considerable and therefore, this issue is not further addressed in this Draft SEIR.

3.2.3 Regulatory Setting

As stated on pages 3.2-5 through 3.2-8 of the FEIR, the proposed project would have to comply with the regulations set forth by the Environmental Protection Agency (EPA) with regards to the *Clean Air Act*. State air quality regulations are governed by the California Air Resources Board (ARB), while the SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. In addition, the proposed project would be required to comply with the goals and policies of the City of Pasadena General Plan and *Pasadena Municipal Code* as they would relate to air quality.

3.2.4 Methodology

Construction Emissions

Construction emissions are calculated using the URBEMIS 2007 computer model developed for the ARB by estimating the types and number of pieces of equipment that would be used to demolish existing structures, grade and excavate the project site, construct the proposed development, and plant new landscaping within the project site. Construction emissions are analyzed according to the thresholds established by the SCAQMD and published in the SCAQMD CEQA *Air Quality Handbook*. The construction activities associated with the proposed project would create diesel emissions, and would generate emissions of dust. All construction activity estimates were assumed to use a similar equipment mix to the original project. Construction equipment within the project site that would generate criteria air pollutants could include excavators, export trucks, and loaders. In addition, emissions during construction and grading activities include truck trips off site to remove debris during the demolition phase and construction truck trips. It is further assumed that most of the construction equipment used would be diesel-powered.

Operational Emissions

Operational emissions associated with the proposed project are estimated using the URBEMIS 2007 computer model developed for the ARB and recommended by the SCAQMD, the information provided

in Chapter 2 (Description of the Revised Project), and trip generation rates from the original project traffic study, as the revised project is not expected to significantly change trip generation or traffic patterns from those analyzed in the original project. Operational emissions would be comprised of mobile source emissions and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the project site associated with operation of the proposed project. Area source emissions are generated by natural gas consumption for space and water heating, and landscape maintenance equipment. To determine if an air quality impact would occur, the increase in emissions was compared with the SCAQMD's recommended thresholds.

3.2.5 Thresholds of Significance

The FEIR indicated that a project would have a significant impact on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Expose sensitive receptors to substantial pollutant concentrations
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)
- Create objectionable odors affecting a substantial number of people

■ Construction Emissions Thresholds

The SCAQMD currently recommends that projects with construction-related emissions that exceed any of the following emissions thresholds should be considered significant:

- 550 pounds per day of CO
- 75 pounds per day of VOC
- 100 pounds per day of NO_x
- 150 pounds per day of SO_x
- 150 pounds per day of PM₁₀
- 55 pounds per day of PM_{2.5}

■ Operational Emissions Thresholds

The SCAQMD currently recommends that projects with operational emissions that exceed any of the following emissions thresholds should be considered significant. These thresholds apply to individual development projects only; they do not apply to cumulative development.

- 550 pounds per day of CO
- 55 pounds per day of VOC
- 55 pounds per day of NO_x
- 150 pounds per day of SO_x
- 150 pounds per day of PM₁₀

- 55 pound per day of PM_{2.5}

3.2.6 Revised Project Impacts and Mitigation Measures

Threshold	Would the project conflict with or obstruct implementation of the applicable air quality plan?
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Impact 3.2-1 **The revised project would be consistent with the AQMP, and would not conflict with or obstruct implementation of air quality standards. This is a *less-than-significant* impact.**

The 2007 AQMP, discussed previously, was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD’s recommended daily emissions thresholds.

Projects that are consistent with the projections of employment and population forecasts identified in the Growth Management Chapter of the RCPG are considered consistent with the AQMP growth projections. This is because the Growth Management Chapter forms the basis of the land use and transportation control portions of the AQMP.

As discussed in Section 3.2 of the FEIR, according to the City of Pasadena General Plan, May 1994, the City has associated with both the Arroyo Verdugo and San Gabriel Valley subregions of the RCPG. SCAG estimates that employment for the Arroyo Verdugo subregion will increase from 356,000 persons in 2000 to 411,000 persons by 2010 and from 674,000 persons in 2000 to 781,000 persons in 2010 for the San Gabriel Valley subregion. The proposed revised project would contribute an incremental portion to this growth in employment. The proposed revised project is consistent with all adopted land use designations for the site and would not increase the local employment within the City or Pasadena as well as the Arroyo Verdugo and San Gabriel Valley subregions beyond those already projected. Therefore, the proposed project (Options A, B, and C) would be consistent with the 2007 AQMP employment forecasts for the Arroyo Verdugo and San Gabriel Valley subregions, and it would not jeopardize attainment of state and federal ambient air quality standards.

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?
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Impact 3.2-2 **Revised project implementation would not expose sensitive receptors to substantial pollutant concentrations. This is a *less-than-significant* impact.**

As was discussed in Section 3.2 of the FEIR, the simplified CALINE4 screening procedure was used to predict future CO concentrations at the study-area intersections in 2008, when all cumulative development in the area of the project is expected to be completed. Intersections analyzed were determined to operate at LOS E or F during special events upon project completion (refer to Section 3.12 [Transportation/Traffic] of the FEIR). The results of these calculations for special events held on weekdays and weekends are presented in Table 3.2-5, Table 3.2-6, and Table 3.2-7, of the FEIR. As shown, future CO concentrations near these intersections would not exceed federal or state ambient air quality standards. Reductions from existing conditions are attributable to improvements in automotive emission technology assumed for newer and future vehicles. CO hotspots are not predicted to exist near these intersections in the future and the contribution of project traffic-related CO at these intersections would not be considered significant. As the proposed revised project (Options A, B, and C) would not significantly change traffic patterns in the project vicinity, revised traffic patterns and the resulting CO concentrations are considered to be similar to those determined in the FEIR.

Impact 3.2-3 **Revised project implementation would not release significant amounts of toxic air contaminants. This is a *less-than-significant* impact.**

Toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed land uses within the project site. During construction of the proposed revised project, incidental amounts of toxic substances such as oils, solvents, and paints would be used. These substances would comply with all applicable SCAQMD rules for their manufacture and use. When completed and operational, only common forms of hazardous or toxic substances typically used, stored, or sold in conjunction with normal operation and maintenance of the proposed uses would be present in small quantities. Based on the common uses expected on the site and anticipated construction operations, potential impacts associated with the release of toxic air contaminants would be less than significant, similar to the original project analyzed in the FEIR.

Impact 3.2-4 **Revised project implementation would not create objectionable odors affecting nearby sensitive receptors. This is a *less-than-significant* impact.**

The proposed revised project does not propose, and would not facilitate, uses that are significant sources of objectionable odors. The most likely potential sources of odor associated with the proposed project would result from construction equipment exhaust during construction activities or the storage of operation-related solid waste. Given the short-term and temporary nature of construction activities, as well as the standard construction requirements imposed on the applicant, impacts associated with construction-generated odors would be less than significant. Any project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, and operational waste would not be significantly greater in amount than under current

conditions. Therefore, similar to the project analyzed in the FEIR, potential for objectionable odors from the proposed revised project (Options A, B, and C) would be less than significant.

Threshold	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?
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Impact 3.2-5 **Site preparation and construction activities would contribute to an existing air quality violation (VOC and NO_x only). This is a potentially significant impact. Implementation of mitigation measures MM 3.2-1 and MM 3.2-2 would reduce this impact, but not to less than significant. Therefore, this impact would be *significant and unavoidable*.**

Construction activities associated with the proposed revised project are expected to occur in several phases, and would include several activities involved in demolition, excavation, and renovation of the existing structure, described in detail in Chapter 2 of this Draft SEIR. These activities are expected to occur over a 30-month period, with major infrastructure improvements, excavation, and structure construction intended to occur during two off-season periods to reduce impacts to UCLA games and other events. Completion of the renovations would occur in approximately the fourth quarter of 2011.

Because of the construction time frame, overlapping of building phases, and the normal day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with each phase of the proposed construction activities. Table 3.2-3 identifies typical daily emissions associated with typical equipment for the different construction phases envisioned for the project. These calculations also assume that appropriate dust control measures would be implemented during each phase of development as required by SCAQMD Rule 403—Fugitive Dust.

As shown, construction-related activities would generate daily emissions of NO_x during the grading and construction phases that exceed SCAQMD significance thresholds, while VOCs exceed the significance thresholds during the construction phase. It should be noted that, while similar construction activities would take place under the proposed revised project compared to the original project analyzed in the FEIR, construction emissions have been reanalyzed in this Draft SEIR to provide necessary updates to the methodology, primarily the use of URBEMIS 2007 and updated emissions factors, and to compare emissions of PM_{2.5} to the SCAQMD’s daily significance threshold for PM_{2.5} which was not available at the time the FEIR was published. Therefore, with respect to VOC and NO_x emissions, this impact, while short-term in nature, contributes to an existing air quality violation and would be significant and unavoidable.

Table 3.2-3 Estimated Daily Construction Emissions						
<i>Emissions Source</i>	<i>Peak Day Emissions in Pounds per Day</i>					
	<i>VOC</i>	<i>NO_x</i>	<i>CO</i>	<i>SO_x</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
Demolition Phase						
Construction Equipment	3.73	27.72	15.92	0.01	1.76	1.62
On-Road Vehicles	0.45	5.75	2.32	0.01	0.27	0.24
Demolition Activities	—	—	—	—	5.00	1.04
Worker Trips	0.05	0.09	1.45	0.00	0.01	0.01
Total Emissions	4.23	33.56	19.69	0.02	7.04	2.91
SCAQMD Thresholds	75.0	100.0	550.0	150.0	150.0	55.00
Significant Impacts?	No	No	No	No	No	No
Site Grading Phase						
Construction Equipment	3.18	26.46	12.98	—	1.33	1.23
On-Road Vehicles	13.73	173.93	70.21	0.20	8.26	7.18
Site Grading	—	—	—	—	20.13	4.20
Worker Trips	0.04	0.07	1.16	0.00	0.01	0.00
Total Emissions	16.95	200.46	84.35	0.20	29.73	12.61
SCAQMD Thresholds	75.0	100.0	550.0	150.0	150.0	55.00
Significant Impacts?	No	Yes	No	No	No	No
Construction Phase						
Construction Equipment	10.12	89.00	62.34	0.11	4.80	4.17
Asphalt Paving	3.62	19.01	11.59	0.01	1.58	1.44
Architectural Coatings	311.04	—	—	—	—	—
Worker Trips	2.08	3.86	63.75	0.07	0.51	0.27
Total Emissions	326.86	111.877	137.68	0.19	6.89	5.88
SCAQMD Thresholds	75.0	100.0	550.0	150.0	150.0	55.00
Significant Impact?	Yes	Yes	No	No	No	No

SOURCE: PBS&J 2007. Calculation sheets are provided in Appendix B.

MM 3.2-1

The project builder(s) shall develop and implement a construction management plan, as approved by the City of Pasadena, which includes the following measures recommended by the SCAQMD, or equivalently effective measures approved by the City of Pasadena:

- *Configure construction parking to minimize traffic interference*
- *Provide temporary traffic controls during all phases of construction activities to maintain traffic flow (e.g., flag person)*
- *Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the degree practicable*
- *Consolidate truck deliveries when possible*
- *Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturers' specifications and per SCAQMD rules, to minimize exhaust emissions*

- *Use methanol- or natural gas-powered mobile equipment and pile drivers instead of diesel to the extent commercially practical*
- *Use propane- or butane-powered on-site mobile equipment instead of gasoline to the extent commercially practical*

MM 3.2-2

The project builder(s) shall implement all rules and regulations by the Governing Board of the SCAQMD that are applicable to the development of the Project (such as Rule 402—Nuisance and Rule 403—Fugitive Dust) and that are in effect at the time of development. The following measures are currently recommended to implement Rule 403—Fugitive Dust. These measures have been quantified by the SCAQMD as being able to reduce dust generation between 30 and 85 percent depending on the source of the dust generation:

- *Water trucks will be utilized on the site and shall be available to be used throughout the day during site grading and excavation to keep the soil damp enough to prevent dust from being raised by the operations*
- *Wet down the areas that are to be graded or that are being graded and/or excavated, in the late morning and after work is completed for the day*
- *All unpaved parking or staging areas, or unpaved road surfaces shall be watered three times daily or have chemical soil stabilizers applied according to manufacturers' specifications*
- *Enclose, cover, water twice daily, or apply approved soil binders to exposed piles (i.e., gravel, sand, and dirt) according to manufacturers' specifications*
- *The construction disturbance area shall be kept as small as possible*
- *All trucks hauling dirt, sand, soil, or other loose materials shall be covered or have water applied to the exposed surface prior to leaving the site to prevent dust from impacting the surrounding areas*
- *Wheel washers shall be installed where vehicles enter and exit unpaved roads onto paved roads and used to wash off trucks and any equipment leaving the site each trip*
- *Streets adjacent to the project site shall be swept at the end of the day if visible soil material is carried over to adjacent roads*
- *Wind barriers shall be installed along the perimeter of the site*
- *All excavating and grading operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 miles per hour over a 30-minute period*
- *A traffic speed limit of 15 miles per hour shall be posted and enforced for the unpaved construction roads (if any) on the project site*
- *Remediation operations, if required, shall be performed in stages concentrating in single areas at a time to minimize the impact of fugitive dust on the surrounding area*

Implementation of these mitigation measures (identified in the FEIR) would reduce this impact, but not to less than significant. The impact remains ***significant and unavoidable***.

Impact 3.2-6 **Revised project implementation would exceed daily operational emissions thresholds. This is a potentially significant impact. As there are no feasible mitigation measures to reduce this impact, the impact would be *significant and unavoidable*.**

Similar to the original project, operational emissions from the proposed revised project would be generated by both stationary and mobile sources as a result of 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, and the operation of landscape maintenance equipment. Mobile emissions would be generated by the motor vehicles traveling to and from the project site.

The analysis of operational emissions has been prepared utilizing the URBEMIS 2007 computer model recommended by the SCAQMD. The results of these calculations for a weekend special event are presented in Table 3.2-4 (Project Operational Emissions for a Weekend Special Event). As shown, the operational emissions associated with the proposed revised project would exceed SCAQMD thresholds. As there is no other feasible mitigation to reduce the impact, it would remain significant and unavoidable. Weekday displacement events would occur as part of the proposed revised project, but would not be above the number of displacement events that currently occur on the project site, nor would future weekday displacement events be more intense than those that occur under existing conditions. As such, emissions from weekday displacement events would not change from those that occur under the existing operation of the Rose Bowl Stadium. It should be noted that, while the analysis is similar to the analysis provided in the FEIR, operational emissions have been reanalyzed in this Draft SEIR to provide necessary updates to the methodology, primarily the use of URBEMIS 2007 and updated emissions factors, and to compare operational emissions of PM_{2.5} to the SCAQMD's daily significance threshold for PM_{2.5} which was not available at the time the FEIR was published.

Table 3.2-4 Project Operational Emissions for a Weekend Special Event						
<i>Emissions Source</i>	<i>Emissions in Pounds per Day</i>					
	<i>VOC</i>	<i>NO_x</i>	<i>CO</i>	<i>SO_x</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
Water and Space Heating	0.00	0.00	0.00	0.00	0.00	0.00
Landscape Maintenance	0.12	0.02	1.55	0.00	0.01	0.01
Consumer Products	0.00	—	—	—	—	—
Architectural Coatings	3.82	—	—	—	—	—
Motor Vehicles	40.04	61.61	537.98	0.61	100.33	19.50
<i>Total Emissions</i>	<i>43.98</i>	<i>61.63</i>	<i>539.53</i>	<i>0.61</i>	<i>100.34</i>	<i>19.51</i>
Thresholds (lb/day)	55.00	55.00	550.00	150.00	150.00	55.00
Significant Impact	No	Yes	No	No	No	No

SOURCE: PBS&J, 2007. Computer sheets are provided in Appendix B.

3.2.7 Cumulative Impacts

A cumulative impact analysis is only provided for those thresholds that result in a less-than-significant or significant and unavoidable impact. A cumulative impact analysis is not provided for those thresholds where there are no project-related impacts.

The geographic context for the discussion of cumulative impacts includes the City of Pasadena.

The SCAQMD's CEQA Air Quality Handbook identifies possible methods to determine the cumulative significance of land use projects. These methods differ from the methodology used in other cumulative impact analyses in which all foreseeable future development within a given service boundary or geographical area is predicted and its impacts measured. The SCAQMD has not identified thresholds to which the total emissions of all cumulative development can be compared. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project specific impacts; that is, individual development projects that generate construction-related or operational emissions that exceed the SCAQMD-recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in non-attainment.

As shown previously in Table 3.2-3 and Table 3.2-4, construction and operation emissions would exceed SCAQMD's thresholds of significance for construction and operation for VOC and NO_x, both precursors of ozone for which the Basin is in nonattainment. As no feasible mitigation measures are available to reduce these impacts to a less-than-significant level, the contribution of the proposed revised project to a cumulatively significant impact in the Basin would be considered to be cumulatively considerable.

For clarification, and as evident by the above analysis, this threshold essentially repeats the analysis provided in Impact 3.2-5 and Impact 3.2-6 and applies it to the cumulative condition, whereby any individual project that exceeds the SCAQMD recommended daily thresholds for project-specific impacts is considered to cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in non-attainment.

3.2.8 Conclusion

The air quality impacts of the proposed project revision would not result in new significant impacts or a substantial increase in the severity of previously identified significant impacts. The revised project would reduce PM₁₀ levels during construction activities, but would increase the amount of VOC emitted during construction activities, and would reduce overall operational emissions with the exclusion of weekday special events analyzed in the FEIR, even though operational emissions would remain significant and unavoidable. Project-specific mitigation measures identified above will continue to be implemented, and no new or different mitigation measures are required.