B. AIR QUALITY

An evaluation of the existing and proposed air quality at the Project Site and Add Area was prepared for the Master Environmental Impact Report by Terry A. Hayes Associates in September 2002. This report is attached in full in **Appendix B** of the Technical Appendices. Findings from this evaluation were utilized in the preparation of this section.

ENVIRONMENTAL SETTING

Air quality in the United States is governed by the Federal Clean Air Act (CAA), administered by the United States Environmental Protection Agency (USEPA). 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), 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.

In California, the CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for meeting the state requirements of the Federal CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Since the CAAQS are more stringent than the NAAQS, the CAAQS are used as the comparative standard in the air quality analysis contained in this report. The CARB regulates mobile air pollution sources, such as motor vehicles. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

Each area designated as non-attainment under the CCAA is required to prepare plans demonstrating how the area will meet the state air quality standards by its attainment dates. The AQMP is the region's plan for improving air quality in the region. It addresses the Federal CAA and CCAA requirements and demonstrates attainment with ambient air quality standards.

The South Coast Air Quality Management District (SCAQMD) monitors air quality within the project area. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SCAB), specifically for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. The proposed Project is located within the Los Angeles County portion of the SCAB. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the SCAB. The SCAQMD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified, or relocated stationary sources do not create net emission increases and, therefore, are consistent with the region's air quality goals.

The SCAQMD has jurisdiction over an approximately 10,743-square-mile area of the SCAB. This area includes all of Orange County, Los Angeles County (except for Antelope Valley), the western urbanized portions of San Bernardino County, and the western and Coachella Valley portions of Riverside County. The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernadino and San Jacinto mountains the the north and east; and the San Diego County line to the south. See **Figure 12: SCAB Location and Boundaries** for the location and boundaries of the SCAB.

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and respirable particulate matter (PM_{10} and PM_{25}).

<u>Carbon Monoxide</u> Carbon monoxide is a colorless and odorless gas. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. In urban areas, CO is emitted by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. CO is a non-reactive air pollutant that generally follows the spatial and temporal distributions of vehicular traffic. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions³¹ are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest CO concentrations measured in the South Coast Air Basin (SCAB) are typically recorded during the winter.

<u>Ozone</u> O_3 , a colorless toxic gas, is the chief component of urban smog. Although O_3 is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NO_x) under sunlight.³² O_3 is present in relatively high concentrations within the Basin, and the damaging effects of photochemical smog are generally related to the concentration of O_3 . Meteorology and terrain play major roles in ozone formation. Ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies.

<u>Nitrogen Dioxide</u> Nitrogen dioxide is a brownish gas. Like O_3 , NO_2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as nitrogen oxides (NO_x) and are major contributors to ozone formation. NO_2 also contributes to the formation of PM_{10} (see discussion of PM_{10} below). In high concentrations, the result is a brownish-red cast to the atmosphere and reduced visibility.

³¹Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.

 $^{^{32}}$ ROG and NO_x are emitted from automobiles and industrial sources.

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Figure 12: SCAB Location and Boundaries

<u>Sulfur Dioxide</u> Sulfur dioxide (SO₂) is a product of high-sulfur fuel combustion. Main sources of SO₂ are coal and oil used in power stations, in industries, and for domestic heating. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. 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 sulfates and PM₁₀, of which SO₂ is a contributor.

<u>Suspended Particulate Matter</u> Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries or motor vehicles undergo chemical reactions in the atmosphere. Respirable particulate matter (PM_{10}) refers to particulate matter less than 10 microns in diameter. Major sources of PM_{10} 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.

 PM_{10} and $PM_{2.5}$ 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. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. Small particulate matter can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury.

The CCAA requires the CARB to designate areas within California as either attainment or nonattainment for each criteria pollutants based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for a pollutant was violated at least once during the previous three calendar years. Under the CCAA, the Los Angeles County portion of the SCAB is designated as a nonattainment area for ozone, carbon monoxide, and respirable particulate matter. The air basin is designated as an attainment area for nitrogen dioxide, sulfur dioxide, sulfates, and lead.³³ The proposed Project does not contain lead emissions sources. Therefore, emissions and concentrations related to this pollutant are not analyzed in this report.³⁴

³³ California Air Resources Board, <u>Proposed Area Designations and Maps</u>, September 2000.

³⁴ Prior to 1978, mobile emissions were the primary source of lead resulting in air concentrations. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. Currently, industrial sources are the primary source of lead resulting in air concentrations. Since the proposed Project does not contain an industrial component, lead emissions are not analyzed in this report.

	A	California Standard	Federal Standards	
Pollutant	Averaging Period	Camornia Standard	Primary	Secondary
0	1 hour	0.09 ppm (180 F g/m ³)	0.12 ppm (235 F g/m ³)	Same as Primary
Ozone (O ₃)	8 hour		0.08 ppm (157 F g/m ³)	Standard
Respirable	Annual Geometric Mean	$30 \ \text{F} \ \text{g/m}^3$		Same as Primary
Particulate	24 hour	$50 \ \text{F} \ \text{g/m}^3$	$150 \ \text{F} \ \text{g/m}^3$	Same as Primary Standard
Matter (PM ₁₀)	Annual Arithmetic Mean		$50 \ \text{F} \ \text{g/m}^3$	
Carbon	8 hour	9.0 (10 mg/m3)	9.0 (10 mg/m3)	NI
Monoxide(CO)			35 ppm (40 mg/m3)	None
Nitrogen	Annual Arithmetic Mean		0.053 ppm (100 F g/m ³)	Same as Primary
Dioxide(NO ₂)	1 hour	0.25 ppm (470 F g/m ³)		Standard
	Annual Arithmetic Mean		0.03 ppm (80 F g/m ³)	
Sulfur Dioxide	24 hour	0.04 ppm (105 F g/m ³)	0.14 ppm (365 F g/m ³)	
(SO ₂)	3 hour			
	1 hour	0.25 ppm (655 F g/m ³)		
SOURCE: Californ	nia Air Resources Board, <u>Federal a</u>	nd State Air Quality Standards 1	<u>1999</u> (1/25/99).	

TABLE 3 STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Both State and Federal standards are summarized in **Table 3: State and National Ambient Air Quality Standards**. "Primary" standards have been established to protect the public health. "Secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the general welfare.

The SCAB is an area of high air pollution potential due to its climate and topography. The region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. However, the SCAB also experiences frequent temperature inversions. Temperature typically decreases with altitude. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air forms over the cool marine layer, preventing air pollutants from dispersing upward.

During the fall and winter, air quality problems are created due to carbon monoxide and nitrogen dioxide emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.) due to the large number of cars during the commute and colder temperatures. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SCAB are associated with heavy traffic.

The SCAQMD monitors air quality conditions at 37 locations throughout the SCAB. The proposed Project is located in the SCAQMD's West San Fernando Valley Air Monitoring Area (No. 6), which is served by the Reseda Monitoring Station, located at 18330 Gault Street in the City of Los Angeles, as shown in **Figure 13: Air Monitoring Areas**. The Reseda Monitoring Station is approximately 2.9 miles from the proposed Project Site. Criteria pollutants monitored at the Reseda Monitoring Station include ozone (O₃), carbon monoxide (CO), and nitrogen dioxide (NO₂). However, the monitoring station does not monitor sulfur dioxide (SO₂) and respirable particulate matter (PM₁₀). The Burbank Monitoring Station, which is within the same General Forecast Area as the Reseda Monitoring Station, monitors these two pollutants.³⁵ The Burbank Monitoring Station is approximately 14.6 miles from the proposed Project Site. Thus, historical data from the Reseda and Burbank Monitoring Station was used to characterize existing conditions of O₃, CO, and NO₂ within the vicinity of the proposed Project areas and the Burbank Monitoring Station was used to characterize existing conditions of O₃, CO, and NO₂ within the vicinity of the proposed Project areas and the Burbank Monitoring Station was used to characterize existing conditions of O₃, CO, and NO₂ within the vicinity of the proposed Project areas and the Burbank Monitoring Station was used to characterize existing conditions of the pollutants PM₁₀ and SO₂.

Table 4: 1999-2001 Criteria Pollutant Violations shows the number of violations recorded at the Reseda and Burbank Monitoring Stations during the 1999-2001 period. As **Table 4: 1999-2001 Criteria Pollutant Violations** indicates, O_3 exceeded the State standard 5 to 27 times annually, CO exceeded the State standard once, and PM₁₀ exceeded the State standard 84 to 126 times annually during the same period.

State Standard	1999	2000	2001
		2000	2001
0.09 ppm (1-hour)	5	8	27
9.0 ppm (8-hour average)	0	1	0
0.25 ppm (1-hour)	0	0	0
0.04 ppm (24-hour average)	0	0	0
50 mg/m ³ (24-hour average)	126	84	84
	0.25 ppm (1-hour) 0.04 ppm (24-hour average) 50 mg/m ³ (24-hour average)	0.25 ppm (1-hour) 0 0.04 ppm (24-hour average) 0 50 mg/m³ (24-hour average) 126	0.25 ppm (1-hour) 0 0 0.04 ppm (24-hour average) 0 0

<u>Table 4</u> 1999-2001 Criteria Pollutant Violations

³⁵ General Forecast Areas are larger groupings of the smaller air monitoring areas.

IV. ENVIRONMENTAL IMPACT ANALYSIS B. Air Quality

Figure 13: Air Monitoring Areas

THRESHOLDS OF SIGNIFICANCE

Construction

According to the City of Los Angeles CEQA Thresholds Guide, a proposed Project would normally have a significant impact on air quality from construction activities if the project would exceed the SCAQMD Thresholds for construction activities, as shown in **Table 5: SCAQMD Daily Emissions Thresholds**.

<u>TABLE 5</u> SCAQMD DAILY EMISSIONS THRESHOLDS							
Criteria Pollutants	Construction (Pounds per day)	Operational (Pounds per day)					
Carbon Monoxide (CO)	550	550					
Reactive Organic Gas (ROG)	75	55					
Nitrogen Oxides (NO _x)	100	55					
Sulfur Oxides (SO _x)	150	150					
Particulates (PM ₁₀)	150	150					
SOURCE: South Coast Air Quality Manage	ment District.						

Additionally, according to the City of Los Angeles CEQA Thresholds Guide, project related factors to be used in a case-by-case evaluation of significance include the following:

Combustion Emissions from Construction Equipment

- Type, number of pieces and usage for each type of construction equipment;
- Estimate fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
- Emission factors for each type of equipment.

Fugitive Dust

Grading, Excavation, and Hauling

- Amount of soil to be disturbed on-site or moved off-site;
- Emission factors for disturbed soil;
- Duration of grading, excavation, and hauling activities;
- Type and number of pieces of equipment to be used; and
- Projected haul route.

Heavy Duty Equipment Travel on Unpaved Roads

- Length and type of road;
- Type, number of pieces, weight and usage of equipment; and
- Type of soil.

Other Mobile Source Emissions

- Number and average length of construction worker trips to Project Site, per day; and
- Duration of construction activities.

The Project Site is located in a developed portion of the western San Fernando Valley. No subterranean levels are proposed for the Site. As a result, the amount of grading, excavation, and hauling and the amount of heavy duty equipment traveling on unpaved roads will not be extensive. Therefore, the thresholds of significance that apply to the proposed Project include combustion emissions, vehicular trips, and fugitive dust.

Operational Activities

According to the City of Los Angeles CEQA Thresholds Guide, a proposed Project would normally have a significant impact on air quality from project operations if the project would exceed the SCAQMD Thresholds for operational activities, as shown in **Table 5: SCAQMD Daily Emissions Thresholds**.

Further, according to the City of Los Angeles CEQA Thresholds Guide, a project could result in a significant impact to air quality if either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:

- The proposed Project causes or contributes to an exceedance of the California 1hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively; or
- The incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.

Additionally, a project could result in a significant impact to air quality if it creates an objectionable odor at the nearest sensitive receptor.

ENVIRONMENTAL IMPACTS

Project Site

Historical data from monitoring stations was used to establish a baseline for estimating future conditions with and without the proposed Project. The air quality analysis conducted for the proposed Project is consistent with methods described in the <u>SCAQMD California</u>

<u>Environmental Quality Act (CEQA) Handbook</u> (1993 edition). The following calculation methods and estimation models were used to determine air quality impacts: SCAQMD construction emissions calculation formulas, the CARB's URBEMIS 2001 emissions model, the CARB's MVEI7G emissions inventory model, the Caltrans' EMFAC emissions factor model, and the USEPA's CAL3QHC dispersion model software.

Carbon monoxide concentrations are typically used as an indicator of conformity with the CAAQS because: (1) CO levels are directly related to vehicular traffic volumes, the main source of air pollutants, and (2) localized CO concentrations can be modeled using USEPA and SCAQMD methods.

For purposes of this assessment, the ambient, or background, concentration of CO was first established. This background level is typically defined as the highest of the second-maximum eight-hour readings over the past two years.³⁶ A review of data from the Reseda Monitoring Station for the 1999-2001 period indicates that the average eight-hour background concentration is approximately 6.1 ppm.³⁷ Assuming a typical persistence factor of 0.7, the estimated one-hour background concentration is approximately 8.7 ppm.³⁸ The existing eight- and one-hour background concentrations do not exceed the State CO standard of 9.0 ppm and 20.0 ppm, respectively.

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust from vehicular traffic is the primary source of CO. Carbon monoxide is a gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as the distance from the source increases. The highest CO concentrations are typically found along sidewalk locations directly adjacent to congested roadway intersections.

To provide a worst case simulation of CO concentrations within the area that might be affected by the proposed Project, CO concentrations at sidewalks adjacent to 24 study intersections were modeled. The study intersections were selected based on traffic volume, roadway capacity, and level of service (LOS).

Existing conditions at the study intersections are shown in **Table 6: Existing Carbon Monoxide Concentrations**. One-hour CO concentrations range from approximately 11.5 ppm to 13.3 ppm. Eight-hour CO concentrations range from approximately 8.1 ppm to 9.3 ppm. None of the study intersections currently exceed the State one-hour CO standard of 20.0 ppm. However, four intersections exceed the State eight-hour CO standard of 9.0 ppm.

³⁶ Garza, Vicente J., Peter Graney, Daniel Sperling. <u>Transportation Project-Level Carbon Monoxide Protocol</u>. Institute of Transportation Studies, University of California, Davis. May 1996.

³⁷ See Appendix B.

³⁸ Persistence factor is the ratio between the eight- and one-hour second annual maximum CO concentrations measured at a continuous air monitoring station. A persistence factor of 0.7 is typically used in urban areas.

Intersection	1-Hour (parts per million)	8-Hour (parts per mill
De Soto Avenue & Plummer Street	12.6	8.8
De Soto Avenue & Nordhoff Street	12.6	8.8
Winnetka Avenue & Nordhoff Street	12.5	8.8
Winnetka Avenue & Parthenia Street	12.4	8.7
Winnetka Avenue & Roscoe Boulevard	12.3	8.6
Winnetka Avenue & Victory Boulevard	12.8	9.0
Corbin Avenue & Devonshire Street	12.0	8.4
Corbin Avenue & Lassen Street	12.1	8.5
Corbin Avenue & Plummer Street	12.1	8.5
Corbin Avenue & Prairie Street	11.5	8.1
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	8.4
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	9.0
Corbin Avenue & Parthenia Street	12.2	8.5
Corbin Avenue & Saticoy Street	12.2	8.5
Tampa Avenue & Devonshire Street	12.3	8.6
Tampa Avenue & Lassen Street	12.5	8.8
Tampa Avenue & Plummer Street	12.2	8.5
Tampa Avenue & Nordhoff Street	12.1	8.5
Tampa Avenue & Roscoe Boulevard	12.1	8.5
Tampa Avenue & Saticoy Street	12.2	8.5
Reseda Boulevard & Plummer Street	13.1	9.2
Reseda Boulevard & Nordhoff Street	12.2	8.5
Reseda Boulevard & Victory Boulevard	13.3	9.3
Zelzah Avenue & Nordhoff Street	12.6	8.8
State Standard	20.0	9.0

<u>TABLE 6</u> EXISTING CARBON MONOXIDE (CO) CONCENTRATIONS

SOURCE: Terry A. Hayes Associates LLC.

Some land uses are considered more sensitive to changes in air quality than others, depending on the types of population groups and the activities involved. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

Two representative sensitive receptors have been identified within one-quarter mile of the proposed Project Site. These sensitive receptors are shown in **Figure 14: Sensitive Receptor Locations**. They include:

- Residential uses
- Washington Mutual Child Care Center

These sensitive receptors do not constitute a comprehensive list of all sensitive uses within the vicinity. Rather, they are intended to represent a sampling of the different types of sensitive uses in the vicinity of the project area. For purposes of providing a worst-case analysis, CO concentrations have been modeled at sidewalk locations adjacent to 24 study area intersections. Concentrations at specific sensitive receptors would be substantially lower than those concentrations immediately adjacent to intersections.

Construction Phase Impacts

Construction for any of the Project Site-only scenarios would generate pollutant emissions from the following construction activities: (1) demolition of existing structures, (2) grading, (3) construction workers traveling to and from Project Site, (4) delivery and hauling of construction supplies and debris to and from Project Site, (5) fuel combustion by on-site construction equipment, and (6) architectural coatings. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. However, PM_{10} is the most significant source of air pollution from construction, particularly during site preparation and grading. **Table 7: Estimated Daily Construction Emissions Before Mitigation, Project Site Only** shows the estimated daily emissions associated with each construction phase.

<u>Scenario 1: Retail Project Site Only</u> As shown in **Table 7: Estimated Daily Construction Emissions Before Mitigation, Project Site Only**, estimated daily construction emissions for Scenario 1: Retail Project Site Only are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. Estimated daily construction emissions for Scenario 1: Retail Project Site Only are anticipated to exceed the SCAQMD threshold for PM10 during the Grading/Excavation phase. Therefore, the proposed Project at the Project Site will result in a significant impact to air quality. However, implementation of the proposed mitigation measures, including implementation of SCAQMD Rule 403, will reduce any impacts to a less than significant level.

<u>Scenario 2: Office Project Site Only</u> Construction impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> Construction impacts similar to Scenario 1: Retail Project Site Only.

Figure 14: Sensitive Receptor Locations

Construction Phase	CO ¹	ROG ¹	NO _x ¹	SO _x ¹	PM ₁
SCAQMD Threshold	550	75	100	150	150
	Scenario 1	: Retail Project Site	e Only		
Demolition	22	3	41	2	100
Grading/Excavation	24	4	49	3	379
Foundation	35	5	57	4	54
Finishing	2	81	1	1	1
Maximum	35	81	57	4	379
Exceed Threshold?	No	Yes	No	No	Yes
	Scenario 2	: Office Project Site	e Only		
Demolition	22	3	41	2	100
Grading/Excavation	24	4	49	3	379
Foundation	35	5	57	4	54
Finishing	2	79	1	1	1
Maximum	35	79	57	4	379
Exceed Threshold?	No	Yes	No	No	Yes
	Scenario 3: Reta	il/Residential Proje	ect Site Only	•	
Demolition	22	3	41	2	100
Grading/Excavation	24	4	49	3	379
Foundation	35	5	58	4	54
Finishing	2	83	1	1	1
Maximum	35	83	58	4	379
Exceed Threshold?	No	Yes	No	No	Yes
	Scenario 4: Offic	ce/Residential Proje	ect Site Only		
Demolition	22	3	41	2	100
Grading/Excavation	24	4	49	3	379
Foundation	35	5	58	4	54
Finishing	2	80	1	1	1
Maximum	35	80	58	4	37
Exceed Threshold?	No	Yes	No	No	Ye.

TABLE 7
ESTIMATED DAILY CONSTRUCTION EMISSIONS BEFORE MITIGATION, PROJECT SITE ONLY

Scenario 4: Office/Residential Project Site Only Construction impacts similar to Scenario 1: Retail Project Site Only.

MITIGATION MEASURES

A significant impact to air quality could result from construction of the proposed Project. However, the following mitigation measures will reduce any potential construction impacts to air quality to the greatest extent possible:

Construction

- 7. The construction area and vicinity (500-foot radius) shall be swept (preferably with water sweepers) and watered at least twice daily. Site-wetting shall occur often enough to maintain a 10 percent surface soil moisture content during all earth-moving activities. (O, C, R)
- 8. All unpaved roads, parking, and staging areas shall be watered at least once every two hours of active operations. (O, C, R)
- 9. Site access points shall be swept/washed within thirty minutes of visible dirt deposition. (O, C, R)
- 10. On-site stockpiles of debris, dirt, or rusty material shall be covered or watered at least twice daily. (O, C, R)
- 11. All trucks hauling soil, sand, and other loose materials shall be covered. (O, C, R)
- 12. All haul trucks shall have a capacity of no less than twelve and three-quarter (12.75) cubic yards. (O, C, R)
- 13. At least 80 percent of all inactive disturbed surface areas shall be watered on a daily basis when there is evidence of wind-driven fugitive dust. (O, C, R)
- 14. Operations on any unpaved surfaces shall be suspended when winds exceed 25 mph. (O, C, R)
- 15. Traffic speeds on unpaved roads shall be limited to 15 miles per hour. (O, C, R)
- 16. Operations on any unpaved surfaces shall be suspended during first and second stage smog alerts. (O, C, R)
- 17. Haul truck routes shall be planned to avoid residential areas, schools, and parks. (O, C, R)
- 18. The proposed Project shall use coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent. (O, C, R)

- 19. A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source. (O, C, R)
- 20. Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or (O, C, R)

(B) take at least one of the actions listed from SCQAMD Rule 403 and: (O, C, R)

(i) prevent the track-out of bulk material onto public paved roadways and remove such material at any time track-out extends for a cumulative distance of greater than 50 feet on any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.

Construction Impacts After Mitigation

<u>Scenario 1: Retail Project Site Only</u> As shown in **Table 8: Estimated Daily Construction Emissions After Mitigation, Project Site Only**, with implementation of the proposed mitigation measures, the proposed development scenarios at the Project Site will result in a less than significant impact to air quality.

<u>Scenario 2: Office Project Site Only</u> Construction impacts after mitigation similar to Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> Construction impacts after mitigation similar to Scenario 1: Retail Project Site Only.

<u>Scenario 4: Office/Residential Project Site Only</u> Construction impacts after mitigation similar to Scenario 1: Retail Project Site Only.

Construction Phase	CO ¹	ROG ¹	NO _X ¹	SO _x ¹	PM ₁₀
SCAQMD Threshold	550	75	100	150	150
	Scenario 1	l: Retail Project Site	e Only		
Demolition	22	3	41	2	74
Grading/Excavation	24	4	49	3	146
Foundation	35	5	57	4	54
Finishing	2	20	1	1	1
Maximum	35	20	57	4	146
Exceed Threshold?	No	No	No	No	No
	Scenario 2	2: Office Project Sit	e Only		-
Demolition	22	3	41	2	74
Grading/Excavation	24	4	49	3	146
Foundation	35	5	57	4	54
Finishing	2	20	1	1	1
Maximum	35	20	57	4	146
Exceed Threshold?	No	No	No	No	No
	Scenario 3: Reta	ail/Residential Proje	ect Site Only		•
Demolition	22	3	41	2	74
Grading/Excavation	24	4	49	3	146
Foundation	35	5	58	4	54
Finishing	2	21	1	1	1
Maximum	35	21	58	4	146
Exceed Threshold?	No	No	No	No	No
	Scenario 4: Offi	ce/Residential Proj	ect Site Only		-
Demolition	22	3	41	2	74
Grading/Excavation	24	4	49	3	146
Foundation	35	5	57	4	54
Finishing	2	20	1	1	1
Maximum	35	20	57	4	146
Exceed Threshold?	No	No	No	No	No

TABLE 8 ESTIMATED DAILY CONSTRUCTION EMISSIONS AFTER MITIGATION, PROJECT SITE ONLY

Regional Impacts

<u>Scenario 1: Retail Project Site Only</u> Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the primary source of long-term project emissions.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. Due to the nature of the proposed Project, general commercial land uses were assumed. The results, shown in **Table 9: Daily Operational Emissions, Project Site Only**, indicate that the proposed Project at the Project Site is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, the proposed Project at the Project Site may result in significant impacts to air quality.

<u>Scenario 2: Office Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 4: Office/Residential Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

Localized Impacts

Overall, CO concentrations are expected to be lower than existing conditions in year 2005 due to stringent state and federal mandates for reducing vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the Project Site Only scenarios,³⁹ CO emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

³⁹ See <u>Traffic Impact Study, Krausz Property Project, Northridge California</u> (Linscott, Law & Greenspan, 8/1/02).

Pollutants	CO ²	ROG ²	NO _X ²	SO _X ²	PM ₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
	Scenario 1: Ret	tail Project Site C	only		
Stationary Source ¹	4.7	25.9	6.4	0	0.02
Mobile Source	1,340.3	115.8	145.3	1.0	66.3
Total Emissions	1,345.0	141.7	151.7	1.0	66.3
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 2: Of	fice Project Site (Only		
Stationary Source ¹	5.9	26.2	9.3	0	0.02
Mobile Source	1,003.5	95.3	105.5	0.9	49.2
Total Emissions	1,009.4	121.5	114.8	0.9	49.2
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 3: Retail/Ro	esidential Project	Site Only		
Stationary Source ¹	6.0	40.9	7.8	0	0.02
Mobile Source	1,297.1	112.8	139.5	1.1	63.8
Total Emissions	1,303.1	153.7	147.3	1.1	63.8
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 4: Office/Ro	esidential Project	Site Only		
Stationary Source ¹	6.9	41.1	10.0	0	0.03
Mobile Source	987.8	96.1	103.4	0.9	48.2
Total Emissions	994.7	137.2	113.3	0.9	48.2
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No

<u>TABLE 9</u> DAILY OPERATIONAL EMISSIONS, PROJECT SITE ONLY

SOURCE: Terry A. Hayes Associates LLC.

The USEPA CAL3QHC micro scale dispersion model was used to calculate CO concentrations for 2005 No Project conditions, as well as for all four Project Site Only scenarios. CO concentrations at the 24 study intersections are shown in **Table 10: 2005 Carbon Monoxide Concentrations, Project Site Only**. CO concentrations at study intersections are discussed below.

<u>Scenario 1: Retail Project Site Only</u> As indicated in **Table 10: 2005 Carbon Monoxide Concentrations, Project Site Only**, the State one- and eight-hour standards of 20.0 ppm and 9.0

² Pounds per day.

			1-1	Hour					8-I	Hour		
Intersection	Existing	No Project	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Existing	No Project	Scen. 1	Scen. 2	Scen. 3	Scen. 4
De Soto Ave & Plummer St	12.6	10.2	10.3	10.3	10.3	10.3	8.8	7.1	7.2	7.2	7.2	7.2
De Soto Ave & Nordhoff St	12.6	10.0	10.1	10.1	10.1	10.1	8.8	7.0	7.1	7.1	7.1	7.1
Winnetka Ave & Nordhoff	12.5	9.8	9.8	9.9	9.8	9.8	8.8	6.8	6.8	6.9	6.8	6.8
Winnetka Ave & Parthenia	12.4	9.8	9.8	9.9	9.8	9.9	8.7	6.9	6.9	6.9	6.9	6.9
Winnetka Ave & Roscoe	12.3	9.9	9.9	10.0	9.9	9.9	8.6	6.9	6.9	6.9	6.9	6.9
Winnetka Ave & Victory	12.8	10.3	10.3	10.3	10.3	10.3	9.0	7.2	7.2	7.2	7.2	7.2
Corbin Ave & Devonshire	12.0	9.6	9.7	10.0	9.9	9.9	8.4	6.7	6.8	7.0	6.9	6.9
Corbin Ave & Lassen St	12.1	10.0	9.9	10.0	9.9	10.0	8.5	7.0	7.0	7.0	7.0	7.0
Corbin Ave & Plummer St	12.1	9.7	9.9	10.0	9.9	9.8	8.5	6.8	6.9	7.0	6.9	6.9
Corbin Ave & Prairie St	11.5	9.3	9.3	9.3	9.4	9.3	8.1	6.5	6.5	6.5	6.6	6.5
Corbin Ave & Nordhoff	12.0	9.6	9.8	9.7	9.7	9.7	8.4	6.7	6.9	6.8	6.8	6.8
Corbin Ave & Nordhoff	12.9	10.5	10.5	10.8	10.8	10.7	9.0	7.3	7.3	7.6	7.6	7.5
Corbin Ave & Parthenia St	12.2	9.8	9.7	9.8	9.7	9.8	8.5	6.8	6.8	6.8	6.8	6.8
Corbin Ave & Saticoy St	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Tampa Ave & Devonshire	12.3	9.7	9.8	9.8	9.7	9.8	8.6	6.8	6.9	6.9	6.8	6.9
Tampa Ave & Lassen St	12.5	10.0	10.0	9.9	10.0	9.9	8.8	7.0	7.0	7.0	7.0	7.0
Tampa Ave & Plummer St	12.2	10.0	10.0	9.9	10.0	10.0	8.5	7.0	7.0	7.0	7.0	7.0
Tampa Ave & Nordhoff St	12.1	9.8	9.9	9.9	9.9	9.9	8.5	6.9	6.9	6.9	6.9	6.9
Tampa Ave & Roscoe Blvd	12.1	9.5	9.5	9.6	9.5	9.5	8.5	6.6	6.6	6.7	6.6	6.6
Tampa Ave & Saticoy St	12.2	9.6	9.7	9.7	9.7	9.6	8.5	6.7	6.8	6.8	6.8	6.7
Reseda Blvd & Plummer St	13.1	10.4	10.4	10.4	10.4	10.4	9.2	7.3	7.3	7.3	7.3	7.3
Reseda Blvd & Nordhoff St	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Reseda Blvd & Victory	13.3	10.1	10.1	10.1	10.1	10.1	9.3	7.1	7.1	7.1	7.1	7.1
Zelzah Ave & Nordhoff St	12.6	9.9	10.1	10.1	10.0	10.1	8.8	6.9	7.1	7.1	7.0	7.1
State Standard			2	0.0					9	9.0		
Note: Bold numbers indicate exce All concentrations include 2005 or SOURCE: Terry A. Hayes Assoc	ne- and eight-hour ambient cor	ncentrations of 6.9 ppm and 4.8 ppm	ı, respectively.									

TABLE 10 2005 CARBON MONOXIDE (CO) CONCENTRATIONS PROJECT SITE ONLY (PARTS PER MILION)

IV. ENVIRONMENTAL IMPACT ANALYSIS B. Air Quality

ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

<u>Scenario 2: Office Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 4: Office/Residential Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

MITIGATION MEASURES

Operational

A significant impact to air quality will result due to operation of the proposed Project. However, any potential impacts will be mitigated to the greatest extent possible by the following measures:

- 2. A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation. (O, C, R)
- 20. Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or (O, C, R)

(B) take at least one of the actions listed from SCQAMD Rule 403 and: (O, C, R)

(i) prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.

22. The proposed Project shall include bicycle parking facilities, such as bicycle lockers and racks. (O, C)

Operational Impacts After Mitigation

<u>Scenario 1: Retail Project Site Only</u> **Table 11: Daily Operational Emissions With Mitigation, Project Site Only** shows daily operational emissions after implementation of mitigation measures. Based on this information, Scenario 1: Retail Project Site Only would still exceed SCAQMD significance thresholds for CO, ROG, and NO_x.

Pollutants	CO ²	ROG ²	NO _X ²	SO_X^2	PM ₁
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.
	Scenario 1: Re	tail Project Site C	Inly		
Stationary Source ¹	4.7	25.9	6.4	0	0.02
Mobile Source	1,332.2	115.6	114.4	1.0	65.9
Total Emissions	1,336.9	141.5	120.8	1.0	65.9
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 2: Of	fice Project Site (Dnly		
Stationary Source ¹	5.9	26.2	9.3	0	0.02
Mobile Source	997.4	94.7	104.9	0.9	48.9
Total Emissions	1,003.3	120.9	114.2	0.9	48.
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 3: Retail/R	esidential Project	Site Only		
Stationary Source ¹	6.0	40.9	7.8	0	0.02
Mobile Source	1,289.3	112.1	138.7	1.1	63.4
Total Emissions	1,295.3	153.0	146.5	1.1	63.4
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 4: Office/R	esidential Project	Site Only		
Stationary Source ¹	6.9	41.1	10.0	0	0.03
Mobile Source	981.9	95.6	102.7	0.9	47.9
Total Emissions	988.8	136.7	112.7	0.9	47.9
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
onary sources include natural gas, lands	caping, and consume	r products.			

 <u>Table 11</u>

 Daily Operational Emissions with Mitigation, Project Site Only

Therefore, the proposed Project at the Project Site could result in a significant and unavoidable impact.

<u>Scenario 2: Office Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

<u>Scenario 4: Office/Residential Project Site Only</u> Operational impacts similar to Scenario 1: Retail Project Site Only.

CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN

Criteria for determining consistency with the Air Quality Management Plan (AQMP) is defined in Chapter 12, Section 12.2 and Section 12.3, of the South Coast Air Quality Management District's CEQA Air Quality Handbook.

<u>Consistency Criterion No. 1</u>: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

<u>Consistency Criterion No. 2</u>: The proposed Project will not exceed the assumptions in the AQMP in 2010 or increments based on the year of project build-out phase.

Project Site Only

Scenario 1: Retail Project Site Only

<u>Consistency Criterion No. 1</u> Consistency Criterion No. 1 refers to violations of the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis indicates that the proposed Project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed Project complies with Consistency Criterion 1.

<u>Consistency Criterion No. 2</u> The AQMP growth assumptions are generated by the Southern California Association of Governments (SCAG). SCAG derives its assumptions, in part, from the general plans of cities located within the SCAG region. Therefore, if a project does not

exceed the growth projections in the general plan, it is consistent with the growth assumptions in the AQMP.

As indicated in **Section IV. I: Population and Housing** and **Section IV. J: Employment**,⁴⁰ Scenario 1: Retail Project Site Only would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, the proposed scenario is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2. As discussed previously, Scenario 1: Retail Project Site Only complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed Project scenario is considered consistent with the AQMP.

<u>Scenario 2: Office Project Site Only</u> See Consistency with the AQMP, Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> See Consistency with the AQMP, Scenario 1: Retail Project Site Only.

<u>Scenario 4: Office/Residential Project Site Only</u> See Consistency with the AQMP, Scenario 1: Retail Project Site Only.

CUMULATIVE IMPACTS

Related Projects

Related projects in the area could result in a potentially significant impact to air quality. **Table 12: Cumulative Project Operational Impact Analysis, Project Site Only** summarizes the criteria pollutant emissions for the proposed Project at the Project Site in combination with related projects.

Proposed Project, Add Area, and Related Projects

Using the SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated in order to establish a baseline from which to evaluate cumulative project emissions. **Table 12: Cumulative Project Operational Impact Analysis, Project Site Only** identifies criteria pollutant emissions and potential cumulative impacts.

⁴⁰If the number of housing units generated by Scenario 1: Retail Project Site Only is combined with housing units generated by related projects in the area and existing conditions, the total number of housing units would exceed year 2005 housing projections. However, the AQMP consistency criteria pertain to impacts associated with the proposed Project rather than impacts of the proposed Project combined with other projects in the area.

	Operational Emissions (pounds per day)							
Project	СО	ROG	NO _x	SOx	PM			
Courthouse	806.5	63.6	86.3	0.5	39.8			
Shopping Center	206.4	16.2	22.5	0.1	10.2			
Drug Store ¹	(23.8)	(2.1)	(2.7)	(0.01)	(1.1			
Church, Senior Residential Facility, Nursery School	50.8	9.0	5.7	0.03	2.4			
Porter Ranch	17,530.7	1,417.3	1,890.5	11.2	867			
Deer Lake Ranch	781.0	91.4	85.8	0.7	37.			
LAUSD	187.6	32.8	20.0	0.1	9.2			
Office	196.6	15.6	21.1	0.1	9.6			
Scenario 1: Retail Project Site Only	1,345.0	141.7	151.7	1.0	66.			
Scenario 2: Office Project Site Only	1,009.3	121.5	114.8	0.9	49.			
Scenario 3: Retail/Residential Project Site Only	1,303.1	153.7	147.3	1.1	63.			
Scenario 4: Office/Residential Project Site Only	994.7	137.2	113.3	0.9	48.			
Scenario 1: Retail Project Site Only Total Emissions	21,080.8	1,785.5	2,280.9	13.7	1,04			
Scenario 1: Retail Project Site Only - Percent of Total	6.4%	7.9%	6.7%	7.3%	6.4			
Scenario 2: Office Project Site Only Total Emissions	20,745.1	1,765.3	2,244.0	13.6	1,02			
Scenario 2: Office Project Site Only - Percent of Total	4.9%	6.9%	5.1%	6.6%	4.8			
Scenario 3: Retail/Residential Project Site Only Total Emissions	21,038.9	1,797.5	2,276.5	13.8	1,03			
Scenario 3: Retail/Residential Project Site Only - Percent of Total	6.2%	8.6%	6.5%	8.0%	6.1			
Scenario 4: Office/Residential Project Site Only Total Emissions	20,730.5	1,781.0	2,242.5	13.6	1,02			
Scenario 4: Office/Residential Project Site Only - Percent of Total	4.8%	7.7%	5.1%	6.6%	4.7			
Cumulative SCAQMD Thresholds ²	4,950.0	495.0	495.0	1,350.0	1,35			
Scenario 1: Retail Project Site Only Cumulative Project - Percent of Threshold	425.9%	360.7%	460.8%	1.0%	77.1			
Scenario 2: Office Project Site Only Cumulative Project - Percent of Threshold	419.1%	356.6%	453.3%	1.0%	75.9			
Scenario 3: Retail/Residential Project Site Only Cumulative Project - Percent of Threshold	425.0%	363.1%	459.9%	1.0%	77.0			
Scenario 4: Office/Residential Project Site Only Cumulative Project - Percent of Threshold	418.8%	359.8%	453.0%	1.0%	75.8			

TABLE 12 CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS, PROJECT SITE ONLY

SOURCE: Terry A. Hayes Associates LLC.

Scenario 1: Retail Project Site Only. As indicated in **Table 12: Cumulative Project Operational Impact Analysis, Project Site Only**, related projects and Scenario 1: Retail Project Site Only are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x . Since the proposed Project and related projects would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this scenario would result in a significant cumulative impact to air quality.

<u>Scenario 2: Office Project Site Only</u> See Project Site Only, Cumulative Impacts, Scenario 1: Retail Project Site Only.

<u>Scenario 3: Retail/Residential Project Site Only</u> See Project Site Only, Cumulative Impacts, Scenario 1: Retail Project Site Only.

<u>Scenario 4: Office/Residential Project Site Only</u> See Project Site Only, Cumulative Impacts, Scenario 1: Retail Project Site Only.

Full Build-Out (Project Site and Add Area)

Background information regarding air quality for the full Project build out scenarios is similar to that for the Project Site only development.

Construction Impacts

Construction for the Full Build Out development scenarios would generate pollutant emissions from the following construction activities: (1) demolition of existing structures, (2) grading, (3) construction workers traveling to and from Project Site, (4) delivery and hauling of construction supplies and debris to and from Project Site, (5) fuel combustion by on-site construction equipment, and (6) application of architectural coatings. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. However, PM_{10} is the most significant source of air pollution from construction, particularly during site preparation and grading.

Table 13: Estimated Daily Construction Emissions Before Mitigation, Full Build Out shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the <u>SCAQMD CEQA</u> <u>Handbook</u>, Appendix to Chapter 9.

<u>Scenario 1: Retail Full Build Out</u> As shown in **Table 13: Estimated Daily Construction Emissions Before Mitigation, Full Build Out**, estimated daily construction emissions for Scenario 1: Retail Full Build-Out are anticipated to exceed the SCAQMD threshold for ROG

Construction Phase	CO ¹	ROG ¹	NO _x ¹	SO _x ¹	PM ₁
SCAQMD Threshold	550	75	100	150	150
	Scenario	1: Retail Full Build	l Out		
Demolition	23	3	42	2	108
Grading/Excavation	24	4	49	3	385
Foundation	36	5	59	4	56
Finishing	2	84	1	1	1
Maximum	36	84	59	4	385
Exceed Threshold?	No	Yes	No	No	Yes
	Scenario	2: Office Full Build	l Out		
Demolition	23	3	42	2	108
Grading/Excavation	24	4	49	3	385
Foundation	37	5	60	4	56
Finishing	2	78	1	1	1
Maximum	37	78	60	4	385
Exceed Threshold?	No	Yes	No	No	Yes
	Scenario 3: Ret	ail/Residential Ful	Build Out		-
Demolition	23	3	42	2	108
Grading/Excavation	24	4	49	3	385
Foundation	37	5	59	4	56
Finishing	2	89	1	1	1
Maximum	37	89	59	4	385
Exceed Threshold?	No	Yes	No	No	Yes
	Scenario 4: Off	ice/Residential Ful	l Build Out		
Demolition	23	3	42	2	108
Grading/Excavation	24	4	49	3	385
Foundation	37	5	59	4	56
Finishing	2	83	1	1	1
Maximum	37	83	55	4	385
Exceed Threshold?	No	Yes	No	No	Yes

 <u>Table 13</u>

 Estimated Daily Construction Emissions Before Mitigation, Full Build Out

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during the finishing phase and PM10 during the Grading/Excavation Phase. Therefore, the proposed full build out Project could result in significant impacts to air quality. However, with implementation of the proposed mitigation measures, including SCAQMD Rule 403, any impacts will be reduced to a less than significant impact.

<u>Scenario 2: Office Full Build Out</u> Construction impacts similar to Full Build-Out Construction Impacts, Scenario 1: Retail Full Build Out.

<u>Scenario 3: Retail/Residential Full Build Out</u> Construction impacts similar to Full Build-Out Construction Impacts, Scenario 1: Retail Full Build Out.

<u>Scenario 4: Office/Residential Full Build Out</u> Construction impacts similar to Full Build-Out Construction Impacts, Scenario 1: Retail Full Build Out.

MITIGATION MEASURES

A significant construction air quality impact will result from the proposed full buildout Project. However, the following mitigation measures will reduce any potential impacts to the greatest extent possible:

Construction

- The construction area and vicinity (500-foot radius) shall be swept (preferably with water sweepers) and watered at least twice daily. Site-wetting shall occur often enough to maintain a 10 percent surface soil moisture content during all earth-moving activities.
- All unpaved roads, parking, and staging areas shall be watered at least once every two hours of active operations.
- Site access points shall be swept/washed within thirty minutes of visible dirt deposition.
- On-site stockpiles of debris, dirt, or rusty material shall be covered or watered at least twice daily.
- All trucks hauling soil, sand, and other loose materials shall covered.
- All haul trucks shall have a capacity of no less than twelve and three-quarter (12.75) cubic yards.
- At least 80 percent of all inactive disturbed surface areas shall be watered on a daily basis when there is evidence of wind-driven fugitive dust.

- Operations on any unpaved surfaces shall be suspended when winds exceed 25 mph.
- Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- Operations on any unpaved surfaces shall be suspended during first and second stage smog alerts.
- Haul truck routes shall be planned to avoid residential areas, schools, and parks.
- The proposed Project shall use coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent.
- A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source.
- Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or

(B) take at least one of the actions listed from SCQAMD Rule 403 and:

(i) prevent the track-out of bulk material onto public paved roadways and remove such material at any time track-out extends for a cumulative distance of greater than 50 feet on any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.

Construction Impacts After Mitigation

<u>Scenario 1: Retail Full Build Out</u> As shown in **Table 14: Estimated Daily Construction Emission After Mitigation, Full Build Out**, with implementation of the proposed mitigation measures, the proposed development scenario at the Project Site and Add Area will result in a less than significant impact to air quality.

Construction Phase	CO ¹	ROG ¹	NO _x ¹	SO _x ¹	PM ₁₀
SCAQMD Threshold	550	75	100	150	150
	Scenario	1: Retail Full Buil	d Out		
Demolition	23	3	42	2	78
Grading/Excavation	24	4	49	3	149
Foundation	36	5	59	4	56
Finishing	2	21	1	1	1
Maximum	36	21	59	4	149
Exceed Threshold?	No	No	No	No	No
	Scenario	2: Office Full Buil	d Out	•	•
Demolition	23	3	42	2	78
Grading/Excavation	24	4	49	3	149
Foundation	37	5	60	4	56
Finishing	2	22	1	1	1
Maximum	37	22	60	4	149
Exceed Threshold?	No	No	No	No	No
	Scenario 3: Re	tail/Residential Ful	l Build Out	•	
Demolition	23	3	42	2	78
Grading/Excavation	24	4	49	3	149
Foundation	37	5	59	4	56
Finishing	2	22	1	1	1
Maximum	37	22	59	4	149
Exceed Threshold?	No	No	No	No	No
	Scenario 4: Of	fice/Residential Ful	ll Build Out	•	
Demolition	23	3	42	2	78
Grading/Excavation	24	4	49	3	149
Foundation	37	5	59	4	56
Finishing	2	21	1	1	1
Maximum	37	21	59	4	149
Exceed Threshold?	No	No	No	No	No

 <u>TABLE 14</u>

 Estimated Daily Construction Emissions After Mitigation, Full Build Out

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<u>Scenario 2: Office Full Build Out</u> Construction impacts after mitigation similar to Full Build Out, Impacts After Mitigation, Scenario 1: Retail Full Build-Out.

<u>Scenario 3: Retail/Residential Full Build Out</u> Construction impacts after mitigation similar to Full Build Out, Impacts After Mitigation, Scenario 1: Retail Full Build-Out.

<u>Scenario 4: Office/Residential Full Build Out</u> Construction impacts after mitigation similar to Full Build Out, Impacts After Mitigation, Scenario 1: Retail Full Build-Out.

Operational Phase Impacts

Regional Impacts

<u>Scenario 1: Retail Full Build Out</u> Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the primary source of long-term project emissions.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 15: Daily Operational Emissions, Full Build Out**, indicate that development of the proposed Project at the Project Site and Add Area is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x .

<u>Scenario 2: Office Full Build Out</u> See Operational Phase Impacts, Regional Impacts, Scenario 1: Retail Full Build Out.

<u>Scenario 3: Retail/Residential Full Build Out</u> See Operational Phase Impacts, Regional Impacts, Scenario 1: Retail Full Build Out.

<u>Scenario 4: Office/Residential Full Build Out</u> See Operational Phase Impacts, Regional Impacts, Scenario 1: Retail Full Build Out.

Localized Impacts

Overall, CO concentrations are expected to be lower than existing conditions in 2005 due to stringent state and federal mandates for reducing vehicle emissions. Although traffic volumes would be higher in the future both with and without implementation of the Full Build-Out scenarios,⁴¹ Carbon Monoxide emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In

⁴¹ See <u>Traffic Impact Study, Krausz Property Project</u> (Linscott, Law & Greenspan, August 1, 2002).

Pollutants	CO ²	ROG ²	NO _x ²	SO _X ²	PM ₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.
	Scenario 1: R	etail Full Build-O	Put		
Stationary Source ¹	1.0	25.5	5.6	0	0.01
Mobile Source	1,603.9	133.2	174.5	1.3	79.4
Total Emissions	1,604.9	158.7	180.1	1.3	79.4
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 2: O	ffice Full Build-O	Put		
Stationary Source ¹	2.9	25.8	10.5	0	0.01
Mobile Source	1,290.8	121.0	135.7	1.1	63.3
Total Emissions	1,293.5	146.8	146.2	1.1	63.3
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 3: Retail/I	Residential Full B	uild-Out		
Stationary Source ¹	2.4	45.3	7.3	0	0.01
Mobile Source	1,537.2	128.4	165.9	1.3	75.7
Total Emissions	1,539.6	173.7	173.2	1.3	75.7
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 4: Office/I	Residential Full B	uild-Out		
Stationary Source ¹	3.9	45.5	10.9	0	0.01
Mobile Source	1,224.2	117.3	128.1	1.0	45.8
Total Emissions	1,228.1	162.8	139.0	1.0	45.8
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No

TABLE 15 **DAILY OPERATIONAL EMISSIONS, FULL BUILD OUT**

SOURCE: Terry A. Hayes Associates LLC.

other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2005 No Project conditions, as well as for all four of the Full Build Out scenarios. Carbon Monoxide concentrations at the 24 study intersections are shown in Table 16: 2005 Carbon Monoxide Concentrations, Full Build-Out. Carbon Monoxide concentrations at the study intersections are discussed below.

	1-Hour					8-Hour						
Intersection	Existing	No Project	Scen. 1	Scen. 2	Scen. 3	Scen. 4	Existing	No Project	Scen. 1	Scen. 2	Scen. 3	Scen. 4
De Soto Ave & Plummer St	12.6	10.2	10.3	10.3	10.3	10.3	8.8	7.1	7.2	7.2	7.2	7.2
De Soto Ave & Nordhoff St	12.6	10.0	10.1	10.1	10.1	10.1	8.8	7.0	7.1	7.1	7.1	7.1
Winnetka Ave & Nordhoff	12.5	9.8	9.8	9.9	9.8	9.9	8.8	6.8	6.8	6.9	6.8	6.9
Winnetka Ave & Parthenia	12.4	9.8	9.9	9.9	9.8	9.9	8.7	6.9	6.9	6.9	6.9	6.9
Winnetka Ave & Roscoe	12.3	9.9	9.9	10.0	9.9	10.0	8.6	6.9	6.9	7.0	6.9	7.0
Winnetka Ave & Victory	12.8	10.3	10.3	10.3	10.3	10.3	9.0	7.2	7.2	7.2	7.2	7.2
Corbin Ave & Devonshire	12.0	9.6	9.9	10.0	9.9	10.0	8.4	6.7	6.9	7.0	6.9	7.0
Corbin Ave & Lassen St	12.1	10.0	9.8	10.1	9.8	10.0	8.5	7.0	6.8	7.1	6.8	7.0
Corbin Ave & Plummer St	12.1	9.7	9.9	10.0	9.9	10.0	8.5	6.8	6.9	7.0	6.9	7.0
Corbin Ave & Prairie St	11.5	9.3	9.5	9.4	9.3	9.3	8.1	6.5	6.6	6.6	6.5	6.5
Corbin Ave & Nordhoff	12.0	9.6	9.8	9.7	9.8	9.8	8.4	6.7	6.9	6.8	6.9	6.9
Corbin Ave & Nordhoff	12.9	10.5	10.9	10.8	10.8	10.8	9.0	7.3	7.6	7.6	7.6	7.6
Corbin Ave & Parthenia St	12.2	9.8	9.7	9.8	9.7	9.8	8.5	6.8	6.8	6.8	6.8	6.8
Corbin Ave & Saticoy St	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Tampa Ave & Devonshire	12.3	9.7	9.8	9.9	9.7	9.8	8.6	6.8	6.9	6.9	6.8	6.9
Tampa Ave & Lassen St	12.5	10.0	10.0	10.0	10.0	9.9	8.8	7.0	7.0	7.0	7.0	7.0
Tampa Ave & Plummer St	12.2	10.0	10.0	9.9	10.0	9.9	8.5	7.0	7.0	7.0	7.0	7.0
Tampa Ave & Nordhoff St	12.1	9.8	9.9	9.9	9.9	9.9	8.5	6.9	6.9	6.9	6.9	6.9
Tampa Ave & Roscoe Blvd	12.1	9.5	9.5	9.6	9.5	9.6	8.5	6.6	6.6	6.7	6.6	6.7
Tampa Ave & Saticoy St	12.2	9.6	9.7	9.7	9.7	9.7	8.5	6.7	6.8	6.8	6.8	6.8
Reseda Blvd & Plummer St	13.1	10.4	10.4	10.4	10.4	10.4	9.2	7.3	7.3	7.3	7.3	7.3
Reseda Blvd & Nordhoff St	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Reseda Blvd & Victory	13.3	10.1	10.1	10.1	10.1	10.1	9.3	7.1	7.1	7.1	7.1	7.1
Zelzah Ave & Nordhoff St	12.6	9.9	10.1	10.2	10.0	10.2	8.8	6.9	7.1	7.1	7.0	7.1
State Standard			2	20.0						9.0		
Note:Bold numbers indicate excee ¹ All concentrations include year 20 SOURCE: Terry A. Hayes Associ	005 one- and eight-hour ambie	nt concentrations of 6.9 ppm and 4.8	8 ppm, respectively.									

 Table 16

 2005 Carbon Monoxide (CO) Concentrations Full Build Out (parts per million)¹

IV. ENVIRONMENTAL IMPACT ANALYSIS B. Air Quality

<u>Scenario 1: Retail Full Build Out</u> As indicated in **Table 16: 2005 Carbon Monoxide Concentrations, Full Build Out**, the State one- and eight-hour standards for CO of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Scenario 2: Office Full Build Out Operational impacts similar to Scenario 1: Retail Full Build Out.

<u>Scenario 3: Retail/Residential Full Build Out</u> Operational impacts similar to Scenario 1: Retail Full Build Out.

Scenario 4: Office/Residential Full Build Out Operational impacts similar to Scenario 1: Retail Full Build Out.

MITIGATION MEASURES

Operational

A significant impact to air quality will result due to operation of the proposed full buildout Project. However, any potential impacts will be mitigated to the greatest extent possible by the following measures:

- A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation.
- Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or

(B) take at least one of the actions listed from SCQAMD Rule 403 and:

(i) prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.

• The proposed Project shall include bicycle parking facilities, such as bicycle lockers and racks.

Operational Impacts After Mitigation

<u>Scenario 1: Retail Full Build Out</u> **Table 17: Daily Operational Emissions with Mitigation, Full Build Out** shows daily operational emissions after implementation of mitigation of mitigation measures. Implementation of mitigation measures would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x , and PM_{10} emissions. However, the proposed Project at the Project Site and Add Area would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x . This impact is considered significant and unavoidable.

Scenario 2: Office Full Build Out Operational impacts similar to Scenario 1: Retail Full Build Out.

<u>Scenario 3: Retail/Residential Full Build Out</u> Operational impacts similar to Scenario 1: Retail Full Build Out.

<u>Scenario 4: Office/Residential Full Build Out</u> Operational impacts similar to Scenario 1: Retail Full Build Out.

CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN

Criteria for determining consistency with the Air Quality Management Plan (AQMP) is defined in Chapter 12, Section 12.2 and Section 12.3, of the South Coast Air Quality Management District's CEQA Air Quality Handbook.

<u>Consistency Criterion No. 1</u>: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Consistency Criterion No. 2: The proposed Project will not exceed the assumptions in the AQMP in 2010 or increments based on the year of project build-out phase.

Pollutants	CO ²	ROG ²	NO _X ²	SO _x ²	PM ₁
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.
	Scenario 1: R	etail Full Build-O	Put		
Stationary Source ¹	1.0	25.5	5.6	0	0.0
Mobile Source	1,594.3	132.4	173.5	1.3	78.9
Total Emissions	1595.3	157.9	179.1	1.3	78.9
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 2: O	ffice Full Build-O	Dut		
Stationary Source ¹	2.9	25.8	10.5	0	0.0
Mobile Source	1,283.0	120.2	134.9	1.1	63.0
Total Emissions	1,285.9	146.0	145.4	1.1	63.0
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 3: Retail/F	Residential Full B	uild-Out		
Stationary Source ¹	2.4	45.3	7.3	0	0.0
Mobile Source	1,528.0	127.7	164.9	1.2	75.
Total Emissions	1,530.4	173.0	172.2	1.2	75
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No
	Scenario 4: Office/F	Residential Full B	uild-Out		
Stationary Source ¹	3.9	45.5	10.9	0	0.0
Mobile Source	1,216.9	116.6	127.3	1.0	59.4
Total Emissions	1,220.8	162.1	138.2	1.0	59.4
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	Na

TABLE 17 DAILY OPERATIONAL EMISSIONS WITH MITIGATION, FULL BUILD OUT

SOURCE: Terry A. Hayes Associates LLC.

Project Site and Add Area Development (Full Build Out)

Scenario 1: Retail Full Build Out

Consistency Criterion No. 1 The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis indicates that the proposed Project scenario would not exacerbate

existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed Project scenario complies with Consistency Criterion 1.

<u>Consistency Criterion No. 2</u> The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, from the general plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or general plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

As indicated in **Section IV. I: Population and Housing** and **Section IV. J: Employment**,⁴² Scenario 1: Retail Full Build Out would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, Scenario 1: Retail Full Build Out is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Scenario 1: Retail Full Build Out complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed Project scenario is considered consistent with the AQMP.

Scenario 2: Office Full Build Out See Consistency with the AQMP, Scenario 1: Retail Full Build Out.

Scenario 3: Retail/Residential Full Build Out See Consistency with the AQMP, Scenario 1: Retail Full Build Out.

<u>Scenario 4: Office/Residential Full Build Out</u> See Consistency with the AQMP, Scenario 1: Retail Full Build Out.

CUMULATIVE IMPACTS

Related Projects

Related projects may contribute to a potentially significant impact on air quality in the project area. **Table 18: Cumulative Project Operational Impact Analysis, Full Build Out** identifies the criteria pollutant emissions for related projects in the area.

⁴² If the number of housing units generated by Scenario 1: Retail Full Build-Out is combined with housing units generated by related projects in the area and existing conditions, the total number of housing units would exceed year 2005 housing projections. However, the AQMP consistency criteria pertain to impacts associated with the proposed Project rather than impacts of the proposed Project combined with other projects in the area.

	Oj	Operational Emissions (pounds per day)					
Project	СО	ROG	NO _x	SOx	PM ₁₀		
Courthouse	806.5	63.6	86.3	0.5	39.8		
Shopping Center	206.4	16.2	22.5	0.1	10.2		
Drug Store ¹	(23.8)	(2.1)	(2.7)	(0.01)	(1.1)		
Church, Senior Residential Facility, Nursery School	50.8	9.0	5.7	0.03	2.4		
Porter Ranch	17,530.7	1,417.3	1,890.5	11.2	867.8		
Deer Lake Ranch	781.0	91.4	85.8	0.7	37.3		
LAUSD	187.6	32.8	20.0	0.1	9.2		
Office	196.6	15.6	21.1	0.1	9.6		
Scenario 1: Retail Full Build-Out	1,604.9	158.7	180.1	1.3	79.4		
Scenario 2: Office Full Build-Out	1,293.7	146.8	146.1	1.1	63.4		
Scenario 3: Retail/Residential Full Build-Out	1,539.6	173.7	173.1	1.3	75.7		
Scenario 4: Office/Residential Full Build-Out	1,228.1	162.9	138.9	1.0	59.8		
				•	•		
Scenario 1: Retail Full Build-Out Total Emissions	21,340.7	1,802.5	2,309.3	14.0	1,054		
Scenario 1: Retail Full Build-Out - Percent of Total	7.5%	8.8%	7.8%	9.3%	7.5%		
Scenario 2: Office Full Build-Out Total Emissions	21,029.5	1,790.6	2,275.3	13.8	1,038		
Scenario 2: Office Full Build-Out - Percent of Total	6.2%	8.2%	6.4%	8.0%	6.1%		
Scenario 3: Retail/Residential Full Build-Out Total Emissions	21,275.4	1,817.5	2,302.3	14.0	1,050		
Scenario 3: Retail/Residential Full Build-Out - Percent of Total	7.2%	9.6%	7.5%	9.3%	7.2%		
Scenario 4: Office/Residential Full Build-Out Total Emissions	20,963.9	1,806.7	2,268.1	13.7	1,035		
Scenario 4: Office/Residential Full Build-Out - Percent of Total	5.9%	9.0%	6.1%	7.3%	5.8%		
		•		•			
Cumulative SCAQMD Thresholds ²	4,950.0	495.0	495.0	1,350.0	1,350		
Scenario 1: Retail Full Build-Out Cumulative Project - Percent of Threshold	431.1%	364.1%	466.5%	1.0%	78.19		
Scenario 2: Office Full Build-Out Cumulative Project - Percent of Threshold	424.8%	361.7%	459.7%	1.0%	76.99		
Scenario 3: Retail/Residential Full Build-Out Cumulative Project - Percent of Threshold	429.8%	367.2%	465.1%	1.0%	77.89		
Scenario 4: Office/Residential Full Build-Out Cumulative Project - Percent of Threshold	423.5%	365.0%	458.2%	1.0%	76.79		

TABLE 18 CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS, FULL BUILD OUT

SOURCE: Terry A. Hayes Associates LLC.

Proposed Project, Add Area, and Related Projects

Using the SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated to establish a baseline from which to evaluate cumulative project emissions. **Table 18: Cumulative Project Operational Impact Analysis, Full Build Out** shows the criteria pollutant emissions for related projects, as well as the proposed full buildout Project scenarios.

<u>Scenario 1: Retail Full Build Out</u> As indicated in **Table 18: Cumulative Project Operational Impact Analysis, Full Build Out**, related projects and Scenario 1: Retail Full Build Out are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x . Since the proposed Project at the Project Site, Add Area, and related projects would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that Scenario 1: Retail Full Build-Out would result in a significant cumulative impact to air quality.

<u>Scenario 2: Office Full Build Out</u> Operational impacts similar to Scenario 1: Retail Full Build Out.

<u>Scenario 3: Retail/Residential Full Build Out</u> Operational impacts similar to Scenario 1: Retail Full Build Out.

<u>Scenario 4: Office/Residential Full Build Out</u> Operational impacts similar to Scenario 1: Retail Full Build Out.

LEVEL OF IMPACT AFTER MITIGATION

Incorporation of the proposed mitigation measures will reduce significant impacts to air quality to the extent possible. However, as indicated previously, after mitigation, implementation of the proposed full buildout Project will result in an exceedance of the cumulative SCAQMD emissions threshold during operational activities for CO, ROG, and NO_x. These impacts are considered significant and unavoidable.