4.2 AIR QUALITY

4.2.1 INTRODUCTION

This section discusses the potential short- and long-term air quality impacts of the construction and ongoing operation of the proposed project. Specifically, this section addresses short-term impacts during construction, including fugitive dust and equipment emissions, and long-term emissions associated with vehicular travel and stationary equipment. The analysis of the air quality impacts of the proposed project is described in detail in the *Revised Air Quality Impact Analysis* (LSA Associates, November 2013) (Appendix C) and is summarized in this section.

4.2.2 METHODOLOGY

A number of modeling tools are available to assess the potential air quality impacts of proposed projects. In addition, the SCAQMD has created guidelines and requirements to conduct air quality analysis. The SCAQMD *CEQA Air Quality Handbook*, April 1993, and associated updates were adhered to in the assessment of the potential short- and long-term air quality impacts of the proposed project. However, the air quality models identified in the *CEQA Air Quality Handbook* are outdated; therefore, the current model, California Emissions Estimator Model (CalEEMod) Version 2013.2.2, was used to estimate the project-related mobile and stationary source emissions in this air quality assessment.

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

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

4.2.3 EXISTING ENVIRONMENTAL SETTING

The project site is in the City of West Hollywood (City), which is in the South Coast Air Basin (Basin) and is under the jurisdiction of the SCAQMD, the California Air Resources Board (ARB), and the United States Environmental Protection Agency (EPA).

Regional Air Quality

The State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As shown in Table 4.2.A, these pollutants are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter with a diameter of less than 2.5 microns ($PM_{2.5}$), and lead (Pb). In addition, the State has set AAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These AAQS are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 4.2.A: Federal and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})[8]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		--		
Fine Particulate Matter ($PM_{2.5}$)[8]	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)[9]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm .(100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	—	
Sulfur Dioxide (SO_2)[10]	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas)[9]	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[9]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)	—	
Lead[11,12]	30-Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility-Reducing Particles[13]	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: ARB, *Area Designation Maps/State and National*

Footnotes to Table 4.2.A:

[1] California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; suspended particulate matter - PM_{10}, $PM_{2.5}$ and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent procedure which can be shown to the satisfaction of ARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[9] To attain the 1-hour standard, the 3-year average of the 98^{th} percentile of the 1-hour daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[10] On June 2, 2010, the a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standards, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations, at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until the 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[11] The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[12] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

[13] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basins, respectively.

°C = degrees Celsius ARB=California Air Resources Board EPA = United States Environmental Protection Agency
$\mu g/m^3$ = micrograms per cubic meter mg/m^3 = milligrams per cubic meter ppm = parts per million
ppb = parts per billion

In addition to identifying these primary and secondary AAQS, the State has established a set of episode criteria for O_3, CO, NO_2, SO_2, and PM_{10}. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three.

An alert will be declared when any one of the pollutant alert levels is reached at any monitoring site and meteorological conditions are such that the pollutant concentrations can be expected to remain at these levels for 12 or more hours or to increase, or as in the case of oxidants, the situation is likely to recur within the next 24 hours unless control actions are taken.

Pollutant alert levels are as follows:

O_3: 392 micrograms per cubic meter ($\mu g/m^3$) (0.20 parts per million [ppm]), 1-hour average

CO: 17 milligrams per cubic meter (mg/m^3) (15 ppm), 8-hour average

NO_2: 1,130 $\mu g/m^3$ (0.6 ppm) 1-hour average; 282 $\mu g/m^3$ (0.15 ppm) 24-hour average

SO_2: 800 $\mu g/m^3$ (0.3 ppm), 24-hour average

Particulates, measured as PM_{10}: 350 $\mu g/m^3$, 24-hour average

Table 4.2.B lists the primary health effects and sources of common air pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than federal AAQS. Among the pollutants, O_3 and particulate matter ($PM_{2.5}$, and PM_{10}) are considered regional pollutants, while the others have more localized effects.

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

Climate and Meteorology

Air quality in the Basin is affected by various emission sources (e.g., mobile, industry) and by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall. The combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States give the Basin the worst air pollution problem in the nation.

Climate in the Basin is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern border, and high mountains surround the rest of the Basin. The Basin lies in the semipermanent high-pressure zone of the Eastern Pacific; the resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted. However, periods of extremely hot weather, winter storms, and Santa Ana wind conditions do occur.

Table 4.2.B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutant	Health Effects	Examples of Sources
Particulate Matter (PM_{10}: less than or equal to 10 microns)	• Increased respiratory disease • Lung damage • Premature death	• Cars and trucks, especially diesels • Fireplaces, wood stoves • Windblown dust from roadways, agriculture, and construction
Ozone (O_3)	• Breathing difficulties • Lung damage	• Formed by chemical reactions of air pollutants in the presence of sunlight; common sources are motor vehicles, industries, and consumer products
Carbon Monoxide (CO)	• Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels	• Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Nitrogen Dioxide (NO_2)	• Lung damage	• See CO sources
Toxic Air Contaminants	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders	• Cars and trucks, especially diesels • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: Revised Air Quality Impact Analysis (Appendix C).

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

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunder showers in coastal regions and slightly heavier showers in the eastern part of the Basin and along the coastal side of the mountains. The Culver City climatological station monitored precipitation from January 1935 to January 2012. Average monthly rainfall measured in Culver City during that period varied from 3.00 inches in February to 0.42 inch

or less between May and October, with an annual total of 13.21 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

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

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

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. Ambient air pollutant concentrations are lowest on days of no inversion or high wind speeds. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are predominantly transported onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is accumulation of CO and NO_X due to extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X, forming photochemical smog.

Air Pollution Constituents and Attainment Status

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

Table 4.2.C lists the attainment status for criteria pollutants in the Basin.

Table 4.2.C: Attainment Status of Criteria Pollutants in the South Coast Air Basin

	State	Federal
1-hour Ozone	Nonattainment	N/A
8-hour Ozone	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Nonattainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Nonattainment (Los Angeles County only)	Nonattainment (Los Angeles County only)
All others	Attainment/Unclassified	Attainment/Unclassified

Source: ARB 2013 (http://www.arb.ca.gov/desig/desig.htm).
ARB = California Air Resources Board
CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matte less than 2.5 microns in diameter
SO_2 = sulfur dioxide

Ozone. O_3 (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases. Ozone is a pungent, colorless gas typical of Southern California smog. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. Ozone levels peak during summer and early fall. The entire Basin is designated as a nonattainment area for the State 1-hour and 8-hour ozone standards. The EPA has officially designated the status for the Basin regarding the 8-hour ozone standard as "Extreme," which means the Basin has until 2024 to attain the federal 8-hour O_3 standard.

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

Nitrogen Oxides. Nitrogen dioxide (NO_2), a reddish-brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_X. NO_X is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection. The entire Basin is designated as nonattainment for the State NO_2 standard and as an "Attainment/Maintenance" area under the federal NO_2 standard.

Sulfur Dioxide. SO_2 is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire Basin is in attainment for both federal and State SO_2 standards.

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

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

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

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

Table 4.2.D: Ambient Air Quality Monitored at the Los Angeles – North Main Street Station

Pollutant	Standard	2010	2011	2012
Carbon Monoxide (CO)				
Maximum 1-hr concentration (ppm)		2.7	2.8	2.2
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hr concentration (ppm)		2.32	2.4	1.91
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0
	Federal: ≥ 9 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hr concentration (ppm)		0.098	0.087	0.093
Number of days exceeded:	State: > 0.09 ppm	1	0	0
Maximum 8-hr concentration (ppm)		0.08	0.065	0.077
Number of days exceeded:	State: > 0.07 ppm	1	0	2
	Federal: > 0.075 ppm	1	0	1
Coarse Particulates (PM_{10})				
Maximum 24-hr concentration (µg/m^3)		42	53	80
Number of days exceeded:	State: > 50 µg/m3	0	9	43
	Federal: > 150 µg/m3	0	0	0
Annual arithmetic average concentration (µg/m^3)		27.1	29	30.2
Exceeded for the year:	State: > 20 µg/m^3	Yes	Yes	Yes
Fine Particulates ($PM_{2.5}$)				
Maximum 24-hr concentration (µg/m^3)		48.6	69.2	58.7
Number of days exceeded:	Federal: > 35 µg/m^3	5	7	4
Annual arithmetic average concentration (µg/m^3)		12.6	13.3	12.7
Exceeded for the year:	State: > 12 µg/m3	Yes	Yes	Yes
	Federal: > 15 µg/m3	No	No	No
Nitrogen Dioxide (NO_2)				
Maximum 1-hr concentration (ppm)		0.089	0.11	0.077
Number of days exceeded:	State: > 0.18 ppm	0	0	0
	Federal: > 0.10 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.025	N/A	N/A
Exceeded for the year:	State: > 0.030 ppm	No	N/A	N/A
	Federal: > 0.053 ppm	No	N/A	N/A
Sulfur Dioxide (SO_2)				
Maximum 24-hr concentration (ppm)		0.002	N/A	N/A
Number of days exceeded:	State: > 0.04 ppm	0	N/A	N/A
Maximum 1-hr concentration (ppm)		0	N/A	N/A
Number of days exceeded:	State: > 0.25 ppm	0	N/A	N/A
	Federal: > 0.075 ppm	0	N/A	N/A

Sources: EPA and ARB websites: http://www.epa.gov/airdata/ad_maps.html and www.arb.ca.gov/adam/welcome.html.
µg/m^3 = micrograms per cubic meter
ARB = California Air Resources Board
EPA = United States Environmental Protection Agency
hr = hour
N/A = data not available
ppm = parts per million

Hydrogen Sulfide. Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be

present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In 1984, an ARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance. The entire Basin is unclassified for the State standard for H_2S.

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

Local Air Quality

The SCAQMD, together with the ARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the project site is the West Los Angeles-North Main Street station, and its air quality trends are representative of the ambient air quality in the project area. The pollutants monitored at this station are CO, O_3, PM_{10}, $PM_{2.5}$, NO_2, and SO_2. The ambient air quality data in Table 4.2.D shows that SO_2 and CO levels stay below the relevant State and federal standards. O_3 and $PM_{2.5}$ levels occasionally exceed both State and federal standards, PM_{10} levels occasionally exceed State but stay below federal standards, and NO_2 occasionally exceeds the federal standard.

4.2.4 REGULATORY SETTING

Federal Regulations and Standards

Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for the major pollutants described earlier, which are termed criteria pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations to protect public health. These standards are listed in Table 4.2.A.

Data collected at permanent monitoring stations are used by the EPA to classify regions as "attainment" or "nonattainment," depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA.

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

The EPA established new NAAQS for ground-level O_3 and $PM_{2.5}$ in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional

as an improper delegation of legislative authority to the EPA. On February 27, 2001, the United States Supreme Court upheld the way the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The Court also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the Court threw out the EPA policy for implementing new O_3 rules, saying that the EPA ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the 8-hour ground-level ozone standard. The EPA issued the proposed rule implementing the 8-hour ozone standard in April 2003. The EPA completed final 8-hour nonattainment status on April 15, 2004. The EPA revoked the 1-hour ozone standard on June 15, 2005, and lowered the 8-hour O_3 standard from 0.08 ppm to 0.075 ppm on April 1, 2008.

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

State Regulations and Standards

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

Air quality in California is regulated by both federal CAA and the California Clean Air Act. The ARB is responsible for meeting the state requirements of the California CAA and establishes the AAQS, as discussed above under Regional Air Quality and summarized in Table 4.2.A.

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

Regional Air Quality Planning Framework

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

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

All projects are required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site.

Regional Air Quality Management Plan

The SCAQMD and SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. Every three years, the SCAQMD prepares a new AQMP, updating the previous plan and with a 20-year planning horizon. The SCAQMD adopted the 2012 AQMP in December 2012 and forwarded it to the ARB for review and approval in February 2013.

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

4.2.5 THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance criteria are based on Appendix G of the CEQA Guidelines. Based on these thresholds, implementation of the proposed project would have a significant air quality impact if it would:

Threshold 4.2.1: Conflict with or obstruct implementation or the applicable air quality plan;

Threshold 4.2.2: Violate any ambient air quality standards or contribute substantially to an existing air quality violation;

Threshold 4.2.3: 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);

Threshold 4.2.4: Expose sensitive receptors to substantial pollutants concentrations; or

Threshold 4.2.5: Create objectionable odors affecting a substantial number of people.

In addition to the federal and State AAQS, there are daily and quarterly emissions thresholds for construction and operation of a project in the Basin. The Basin is administered by the SCAQMD, and

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

SCAQMD Thresholds

Construction Emissions. The CEQA significance thresholds for construction emissions established by the SCAQMD for the Basin are:

- 75 pounds per day (lbs/day) of ROC
- 100 lbs/day of NO_X
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of sulfur oxides (SO_X)

Projects in the Basin with construction-related emissions that exceed any of these emissions thresholds are considered to cause significant short-term adverse air quality impacts under the SCAQMD guidelines and CEQA.

Operational Emissions. The daily operational emissions significance thresholds established for the Basin by the SCAQMD are described below.

Emission Thresholds for Pollutants with Regional Effects. Projects with operation-related emissions that exceed any of the emissions thresholds listed below are considered to cause significant adverse long-term impacts under the SCAQMD guidelines and CEQA:

- 55 lbs/day of ROC
- 55 lbs/day of NO_X
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_X

Local Microscale Concentration Standards. The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below the

State and federal CO AAQS. If ambient levels are below the AAQS, a project is considered to have a significant adverse impact if project emissions result in an exceedance of one or more of the AAQS. If ambient levels already exceed a State or federal AAQS, project emissions are considered significant and adverse if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emissions concentration standards for CO:

- State 1-hour CO AAQS of 20.0 ppm; and
- State 8-hour CO AAQS of 9.0 ppm.

The federal standards also apply but are less restrictive than the State standards.

Localized Significance Thresholds

SCAQMD has developed a Localized Significance Threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or State AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (June 2003, revised July 2008), and *Final–Methodology to Calculate Particulate Matter (PM)$_{2.5}$ and PM$_{2.5}$ Significance Thresholds* (October 2006) were adhered to in the assessment of air quality impacts for the proposed project.

In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are nonattainment pollutants. For these two criteria pollutants, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 µg/m^3 applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 µg/m^3 applies to nonaggregate handling operational activities.

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

For the proposed project, the appropriate Source Receptor Area (SRA) is the Northwest Coastal LA County (SRA 2), according to the SRA/City Table on the SCAQMD LST website.[1] The site is approximately 3 ac; thus, 3 ac thresholds were interpolated from the 5 and 2 ac thresholds supplied by SCAQMD. There are existing residential uses to the south at a distance of approximately 200 ft

[1] www.aqmd.gov/ceqa/handbook/LST/LST.html.

(60 meters [m]) from the closest construction area. The following thresholds apply for the proposed project:

Construction thresholds for a 3 ac site at 60 m:

169 lbs/day of NO_X

1,586 lbs/day of CO

29 lbs/day of PM_{10}

7.1 lbs/day of $PM_{2.5}$

Operational thresholds for a 3 ac site at 60 m:

169 lbs/day of NO_X

1,586 lbs/day of CO

7.4 lbs/day of PM_{10}

2.3 lbs/day of $PM_{2.5}$

Health Risk Analysis Thresholds

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

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

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

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

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

- An increased MICR greater than 10 in 1 million (1.0×10^{-5}) at any receptor location (assumes the project will be constructed with T-BACT)
- A cancer burden greater than 0.5

- **Chronic HI.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multipathway consideration when applicable.

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

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

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

4.2.6 PROJECT IMPACTS

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

Threshold 4.2.1: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact

Air Quality Management Plan Consistency. In order to accurately assess the environmental impacts as a result of new or renovated developments, environmental pollution and population growth are projected for future scenarios. Projects that are considered consistent with the AQMP do not interfere with attainment and do not contribute to the exceedance of an existing air quality violation because this growth is included in the projections used in the formulation of the AQMP. Projects that are consistent with growth forecasts identified by SCAG are considered consistent with the AQMP growth projections. This is because the growth projections by SCAG form the basis of the land use and transportation control portions of the AQMP.

The proposed project is a mixed-use development. As discussed in Section 4.11, Population and Housing, the increase in population associated with the 76 proposed residential units would be approximately 120 persons. This would comprise approximately 2.9 percent of the City population growth forecasted by SCAG between 2010 and 2015. This population increase is within the SCAG projected growth forecast; therefore, the proposed project would be consistent with population forecasts for the City.

As discussed in Section 4.11, Population and Housing, the proposed project would generate approximately 193 retail employment opportunities, potentially resulting in a net loss of 2 employment opportunities when compared to the existing conditions. Overall, the proposed project's employment opportunities are essentially the same as under existing conditions (assuming no vacancies); therefore, the proposed project would not increase employment population within the City in excess of that projected by SCAG in the AQMP.

Because the proposed project would not increase population or employment figures over those that have been planned for the area, it would be consistent with the AQMP forecasts and with the adopted AQMP.

Threshold 4.2.2: Would the proposed project violate any air quality standard or contribute to an existing or projected air quality violation?

Less than Significant Impact

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

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

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

The most recent version of the CalEEMod model (Version 2013.2.2) was used to calculate the construction emissions, as shown in Table 4.2.E. These emissions are the combination of the on-

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

and off-site emissions. The emission rates shown in Table 4.2.E are from the CalEEMod output tables listed as "Mitigated Construction," even though the only measures that have been applied to the analysis are the required construction emissions control measures or the standard conditions. Compliance with SCAQMD standard conditions, including Rule 403 (listed in Standard Conditions AQ-1 and AQ-2), General Plan EIR Mitigation Measure 3.15-1, and the City's Climate Action Plan (CAP) have been included in the calculations of construction emissions. As shown in Table 4.2.E, with incorporation of these standard conditions and emission control measures, construction emissions would not exceed any of the SCAQMD's thresholds. It is assumed that none of the phases would overlap.

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

$PM_{2.5}$ and PM_{10} emissions from grading operations during a peak construction day were calculated using the CalEEMod model and are included in the emissions listed in Table 4.2.E. The total construction emissions (i.e., fugitive dust emissions and construction equipment exhausts) listed in Table 4.2.E have incorporated the required construction emissions control measures from the CAP and the SCAQMD standard conditions to significantly reduce fugitive dust emissions from construction. The NOx emissions during construction were reduced up to 53% due to the use of Tier-3 equipment as required in the City's General Plan EIR Mitigation Measure 3.15-1 and the fugitive dust emissions during construction were reduced up to 59% by implementing the SCAQMD standard measures including Rule 403.

As shown in Table 4.2.E, $PM_{2.5}$ and PM_{10} emissions from grading operations during a peak construction day are not anticipated to exceed the SCAQMD thresholds. Although no mitigation is required, the proposed project would be required to comply with SCAQMD standard conditions and Rule 403 (as listed in Section 4.2.6, Standard Conditions, of this Chapter) to control fugitive dust.

Table 4.2.E: Short-Term Regional Construction Emissions With Required Controls

	Total Regional Pollutant Emissions, lbs/day								
Construction Phase	**ROC**	**NO_X**	**CO**	**SO_X**	**Fugitive PM_{10}**	**Exhaust PM_{10}**	**Fugitive $PM_{2.5}$**	**Exhaust $PM_{2.5}$**	**CO_2e**
Demolition	1.9	34	38	0.069	1.9	1.5	0.34	1.5	7,200
Site Preparation	1.8	34	41	0.072	7.2	1.5	3.9	1.5	7,700
Grading	3.0	60	73	0.12	2.6	2.6	1.3	2.6	13,000
Building Construction	4.2	35	64	2.0	3.4	2.0	2.0	2.0	9,600
Paving	0.59	11	16	0.024	0.19	0.79	0.051	0.79	2,400
Architectural Coating	38	1.7	5.6	0.01	0.54	0.10	0.14	0.10	900
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**		**55**		**No Threshold**
Significant Emissions?	**No**	**No**	**No**	**No**	**No**		**No**		

Source: Revised Air Quality Impact Analysis (Appendix C).

CO = carbon monoxide
CO_2 = carbon dioxide
CO_{2e} = carbon dioxide equivalent
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROC = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SO_x = sulfur oxides

Threshold 4.2.3: Would the proposed project 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)?

Less Than Significant Impact

Localized Construction Emissions. Air quality impacts would occur during construction of the proposed project from soil disturbance and equipment exhaust. Major sources of emissions during demolition, grading, and site preparation include exhaust emissions from construction vehicles and equipment, and fugitive dust generated by construction vehicles and equipment traveling over exposed surfaces, demolition activities, and soil disturbances from grading and backfilling, as described in the following sections.

Localized construction emissions were evaluated using the LST thresholds. Table 4.2.F shows the construction-related on-site emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ compared to the LSTs for the Northwest Coastal Los Angeles County SRA at distances of 60 m (197 ft). As shown in Table 4.2.F, the maximum emissions from project construction would not cause or contribute to an exceedance of the most stringent applicable federal or State AAQS. Therefore, the proposed construction activities would not cause any locally significant air quality impacts.

Table 4.2.F: Summary of Construction Emissions Localized Significance

	Emission Rates (lbs/day)			
Construction Phase	**CO**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Demolition	31	26	2.7	1.5
Site Preparation	40	34	8.6	5.4
Grading	73	59	5.2	3.9
Building	25	19	1.1	1.1
Architectural Coating and Paving	17	13	0.88	0.88
Localized Significance Threshold	**1,586**	**169**	**29**	**7.1**
Exceed Significance?	**No**	**No**	**No**	**No**

Source: Revised Air Quality Impact Analysis (Appendix C).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

Long-Term Regional Air Quality Impacts. Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The

stationary source emissions would come from many sources, including the use of consumer products, landscape equipment, general energy, and solid waste. Based on trip generation factors, long-term operational emissions associated with the existing land uses and the proposed project, calculated with the CalEEMod model, are shown in Table 4.2.G. Area sources include architectural coatings, consumer products, hearth, and landscaping. Energy sources include natural gas consumption for heating and cooking. Table 4.2.G shows that the increase of all criteria pollutants as a result of the proposed project would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants. The total operational emissions listed in Table 4.2.G have incorporated standard conditions including compliance with Title 24 California Code of Regulations related to construction materials (e.g. dual paned windows and low emission water heaters). These measures are included as Standard Condition AQ-4. Therefore, project-related long-term air quality impacts would be less than significant.

Table 4.2.G: Long-Term Regional Operational Emissions

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

Source: Revised Air Quality Impact Analysis (Appendix C).
CO = carbon monoxide
CO_2 = carbon dioxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROCs = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SO_x = sulfur oxides

Localized Operational Emissions. Table 4.2.H shows the calculated emissions for the proposed operational activities compared with the appropriate localized significance thresholds. The emissions shown include all stationary sources and 1 percent of the mobile sources, which is an estimate of the amount of project-related vehicle traffic that would occur on site.

Table 4.2.H shows that the maximum emissions from the proposed project operation would not cause or contribute to an exceedance of the most stringent applicable federal or State AAQS. Therefore, the proposed operational activity would not cause any localized significant air quality impacts.

Table 4.2.H: Summary of Operational Localized Significance

	Emission Rates (lbs/day)			
	CO	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project	8.2	0.45	0.33	0.19
Localized Significance Threshold	**1,586**	**169**	**7.4**	**2.3**
Exceed Significance?	**No**	**No**	**No**	**No**

Source: Revised Air Quality Impact Analysis (Appendix C).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matte less than 2.5 microns in diameter

Threshold 4.2.4: Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact

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

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the West Los Angeles-North Main Street station, the closest station with monitored CO data, showed a highest-recorded 1-hour concentration of 2.8 ppm (State standard is 20 ppm) and a highest-recorded 8-hour concentration of 2.4 ppm (State standard is 9 ppm) during the past three years, as shown earlier in Table 4.2.D.

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

- Selected modeling locations represent the intersections closest to the project site, with the highest project-related vehicle turning movements and the worst level of service deterioration.
- A total of 20 receptor locations with the possibility of extended outdoor exposure from 7 m (approximately 23 ft) to 21 m (approximately 69 ft) of the roadway centerline near intersections were modeled to determine CO concentrations.
- The calculations assume a meteorological condition of almost no wind (0.5 m/second), a suburban topographical condition between the source and receptor, a temperature of 55º F (minimum average January temperature of 45.1º F plus 10º F), and a mixing height of 1,000 meters (m), representing a worst-case scenario for CO concentrations.
- CO concentrations are calculated for the 1-hour averaging period and then compared to the 1-hour standards. CO 8-hour averages are extrapolated using techniques outlined in the SCAQMD *CEQA Air Quality Handbook* and compared to the 8-hour standards; a persistence factor of 0.7 was used to predict the 8-hour concentration in a nonattainment area.
- Concentrations are given in parts per million (ppm) at each of the receptor locations.
- The "at-grade" link option with speed adjusted based on average cruise speed and number of vehicles per lane per hour was used rather than the "intersection" link selection in the CALINE4 model. (The California Department of Transportation [Caltrans]) has suggested that the "intersection" link should not be used due to an inappropriate algorithm based on outdated vehicle distribution.) Emission factors from the EMFAC2007 model for all vehicles based on the adjusted speed for 2012 and 2016 were used for the vehicle fleet.
- The highest levels of the second-highest 1-hour and 8-hour CO concentrations monitored at the West Los Angeles-North Main Street station in the past 3 years were used as background concentrations: 2.6 ppm for the 1-hour CO and 2.3 ppm for the 8-hour CO. The "background" concentrations are then added to the model results for future with and without the proposed project conditions.

The proposed project would contribute to increased CO concentrations at intersections in the project vicinity. As shown in Table 4.2.I, under existing conditions, all 11 intersections analyzed would have 1-hour and 8-hour CO concentrations below the federal and State standards. The existing CO concentrations are from current traffic in the vicinity of these intersections.

For the future opening year scenario, traffic volumes projected for opening year (2016) were used, with 2016 emission factors for CO. The current year background CO concentrations at the West Los Angeles-North Main Street station were used for the future opening year conditions. Table 4.2.J shows that, under the 2016 opening year condition, none of the 11 intersections analyzed would exceed either the 1-hour or the 8-hour CO concentration federal and State standards. These 11 intersections were chosen for analysis because they had the greatest potential for excessive CO emissions based on traffic volumes. Even though higher traffic volumes are anticipated, the lower overall CO concentrations are generally due to lower future vehicular emissions from advanced technology and lower ambient CO levels in the future. The proposed project would contribute at most a 0.1 ppm increase to the 1-hour CO concentrations and 0.1 ppm increase to the 8-hour CO concentrations at these intersections. The proposed project would not have a significant impact on local air quality for CO, and no mitigation measures would be required.

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

Mobile Source Health Risk Impacts. The only toxic air pollution emissions in any significant quantity associated with construction of the proposed project would occur from diesel-powered equipment exhaust. Other toxic substances potentially used on site would be controlled through

Table 4.2.I: Existing (2012) CO Concentrations[1]

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

Source: Revised Air Quality Impact Analysis (Appendix C).

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

[2] The State 1-hour standard is 20 ppm and the 8-hour standard is 9 ppm.

CO = carbon monoxide ppm = parts per million

Table 4.2.J: Opening Year (2016) CO Concentrations[1]

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

Source: LSA Associates, Inc., March 2012.

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

[2] The State 1-hour standard is 20 ppm and the 8-hour standard is 9 ppm CO = carbon monoxide

compliance with State and federal handling regulations. The Office of Environmental Health Hazard Assessment (OEHHA) currently describes the health risk from diesel exhaust entirely in terms of the amount of particulate, or PM_{10}, that is emitted. Currently, the health risk associated with diesel exhaust PM_{10} only has a carcinogenic and chronic effect; no short-term acute effect is recognized.

Health risks are determined by defining the exposure of sensitive receptors, such as homes, schools, hospitals, etc., to toxic air contaminants. Thus, there is a relationship between proximity of the source of the emissions to the sensitive receptor. The nature of the mobile equipment used in construction operations is that it only operates in one location a short time, relative to the length of time required for carcinogenic and chronic health impacts (usually six months or less). The anticipated level of on-site diesel-powered equipment use would, even on the most intense day, emit less than 4.5 lbs/day of PM_{10} (see Table 4.2.E, Exhaust PM_{10} during Grading). A screening health risk assessment was performed using a weighted average PM_{10} emission rate of 2.7 lbs/day[1], and assuming the mobile equipment operates for 250 days per year and a 33 month total period. Following OEHHA health risk calculation techniques, potential impacts from air toxics associated with diesel exhaust during proposed project construction are shown in Table 4.2.K. The cancer health risk would be highest (2.3 in 1 million) at 80 m (approximately 260 ft); however, it would still be far below the cancer threshold of 10 in 1 million. The chronic health risk of 0.050 is also far below the chronic threshold of 1.0. Therefore, the health risks to nearby residents from construction operations would be less than significant.

Table 4.2.K: Screening Health Risk Results for Construction

Distance (m)	Inhalation Cancer Risk # in a million	Inhalation Chronic Risk Factor
60	2.1	0.047
70	2.2	0.049
80	2.3	0.050
90	2.1	0.046
100	1.7	0.038
Health Risk Thresholds	**10**	**1.0**

Source: Air Quality Analysis (Appendix C).
m = meters

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

[1] Weighted average determined by assuming peak daily rate occurs for 10 percent of the construction period and the rest of the time the daily emissions rate is 50 percent of the peak.

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

Carcinogenic and Chronic Impacts. The results of the health risk assessment are shown in Table 4.2.L. The health risks would be far below the cancer threshold of 10 in 1 million and the chronic threshold of 1.0; therefore, the health risks from long-term operations would be less than significant.

Table 4.2.L: Screening Health Risk Results for Long-Term Operations

Distance (m)	Inhalation Cancer Risk # in a million	Inhalation Chronic Risk Factor
60	0.16	0.00010
70	0.14	0.00009
80	0.13	0.00008
90	0.12	0.000073
100	0.10	0.000065
Health Risk Thresholds	**10**	**1.0**

Source: Air Quality Analysis (Appendix C).
m = meters

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

Threshold 4.2.5: Would the proposed project create objectionable odors affecting a substantial number of people?

Less Than Significant Impact

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

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

4.2.7 STANDARD CONDITIONS

Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques would reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

Standard Condition AQ-1: SCAQMD CEQA Handbook

The proposed project will be required to implement the following SCAQMD measures:

A. Dust suppression measures:

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

B. The construction contractor shall select the construction equipment used on site based on low-emission factors and high energy efficiency. The construction contractor shall ensure

that construction grading plans include a statement that all construction equipment will be tuned and maintained in accordance with the manufacturer's specifications.

C. The construction contractor shall utilize electric or diesel-powered equipment in lieu of gasoline-powered engines where feasible.

D. The construction contractor shall ensure that construction grading plans include a statement that work crews will shut off equipment when not in use. During smog season (May through October), the overall length of the construction period will be extended, thereby decreasing the size of the area prepared each day, to minimize vehicles and equipment operating at the same time.

E. The construction contractor shall time the construction activities so as to not interfere with peak-hour traffic and minimize obstruction of through traffic lanes adjacent to the site; if necessary, a flagperson shall be retained to maintain safety adjacent to existing roadways.

F. The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew.

G. Compliance with the SCAQMD Rule 1113 on the use of architectural coatings should be implemented. Emissions associated with architectural coatings would be reduced by complying with these rules and regulations, which include using pre-coated/natural-colored building materials, and using water-based or low-VOC coating.

Standard Condition AQ-2: SCAQMD Rule 403 Measures

The proposed project will be required to implement the following SCAQMD measures:

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

Standard Condition AQ-3: West Hollywood General Plan EIR Mitigation Measure 3.15-1

The proposed project will be required to comply with Mitigation Measure 3.15-1 from the General Plan EIR (see Appendix B to the Revised Air Quality Impact Analysis [Appendix C], which requires projects to implement all feasible measures for reducing construction-related GHG emissions.

Standard Condition AQ-4: Title 24 of the California Code of Regulations

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

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

4.2.8 MITIGATION MEASURES

With incorporation of the Standard Conditions AQ-1 through AQ-4 as listed above, the proposed project's air quality impacts would be less than significant. No mitigation measures are required.

4.2.9 CUMULATIVE IMPACTS

The cumulative study area for air quality analysis is the Basin, and air quality conformance is overseen by the SCAQMD. Each project in the Basin is required to comply with SCAQMD rules and regulations. The population growth associated with the proposed project is consistent with the projections in the City's General Plan and therefore has been accommodated in the adopted AQMP for the Basin. Other projects in the Basin are required to be consistent with the AQMP. The impact analysis provided in Section 4.2.6 determined that the proposed project would not result in a significant health risk for any of the analyzed pollutants.

As shown previously in Table 4.2.E, construction emissions would not exceed any of the SCAQMD thresholds. Therefore, implementation of the proposed project would not contribute to significant short-term cumulative adverse air quality impacts, and no mitigation would be required. With adherence to standard conditions, including SCAQMD Rules 402 and 403, the project's contribution to short-the term cumulative construction air quality impacts would be less than cumulatively significant. Additionally, maximum emissions from the proposed project during operation would not result in a cumulative air quality impact that would exceed applicable federal or State AAQA.

4.2.10 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With incorporation of Standard Conditions AQ-1, AQ-2, and AQ-3 construction of the proposed project would not result in any short-term significant air quality impacts. No mitigation measures are required.

With incorporation of Standard Condition AQ-4, operation of the proposed project would not result in significant air quality impacts. No mitigation is required.