APPENDIX C

AIR QUALITY AND NOISE TECHNICAL REPORT

MALIBU - LA PAZ

AIR QUALITY AND NOISE TECHNICAL REPORT

Prepared for

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1.0 SUMMARY OF FINDINGS

An air quality and noise impact analysis was conducted by Terry A. Hayes Associates LLC for the proposed Malibu - La Paz project. Key findings are listed below.

1.1 AIR QUALITY

1.1.1 Proposed Project

- Construction of the Proposed Project would not exceed any of the SCAQMD significance threshold for CO, ROG, NO_X, SO_X, and PM_{10}. Thus, less-than-significant impacts are anticipated.

- The Proposed Project would not exceed any of the SCAQMD significance thresholds for CO, ROG, NO_X, SO_X, and PM_{10} during the operations phase. Thus, less-than-significant impacts are anticipated.

- Under "Proposed Project" conditions, one-hour CO concentrations would range from 5.4 parts per million (ppm) to 7.1 ppm during the weekday and from 6.1 ppm to 6.6 ppm during the weekend at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 3.3 ppm to 4.3 ppm during the weekday. During the weekend, eight-hour CO concentrations are anticipated to range from approximately 3.7 ppm to 4.0 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations at the affected study intersections. Thus, a less-than-significant impact is anticipated.

- The Proposed Project, when combined with 14 related projects in the vicinity of the project site, would not exceed cumulative SCAQMD emissions thresholds. The Proposed Project would not significantly contribute to cumulative emissions.

1.1.2 Preferred Alternative

- The Preferred Alternative would not exceed SCAQMD significance thresholds for CO, ROG, NO_X, SO_X, and PM_{10} during the construction phase. Thus, less-than-significant impacts are anticipated.

- The Preferred Alternative would not exceed SCAQMD significance thresholds for CO, ROG, NO_X, SO_X, and PM_{10} during the operational phase. Thus, less-than-significant impacts are anticipated.

- Under "Preferred Alternative" conditions, one-hour CO concentrations would range from approximately 5.4 ppm to 7.1 ppm during the weekday and from 6.1 ppm to 6.6 ppm during the weekend at worst-case sidewalk receptors. The "Preferred Alternative" weekday eight-hour CO concentrations are anticipated to range from approximately 3.3 ppm to 4.3 ppm. During the weekend, eight-hour CO concentrations are anticipated to range from approximately 3.7 ppm to 4.0 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations at the affected study intersections. Thus, a less-than-significant impact is anticipated.

- The Preferred Alternative, when combined with 14 related projects in the vicinity of the project site, would not exceed cumulative SCAQMD emissions thresholds. The Preferred Alternative would not significantly contribute to cumulative emissions.

1.2 NOISE

1.2.1 Proposed Project

- Construction of the Proposed Project would increase ambient noise levels by 20 dBA at the single-family residences to the north of the project site and by 11 dBA at both Colin McEwin High School and the Malibu Public Library. These increases would exceed the significance threshold of a five decibel or more increase over the ambient noise level. This exceedance would still occur after implementation of mitigation measures **N1** through **N4**. Thus, a significant impact would occur at these receptors.

- Vehicular traffic noise levels, under "project" conditions, are anticipated to incrementally increase by less than one and one decibel when compared to "no project" conditions. Such increases are not anticipated to exceed the operational phase significance criteria of a three decibels or more increase to or within the "normally unacceptable" category or a five decibels or more increase within the "conditionally acceptable" category of the Land Use Compatibility for Community Noise Environments chart. Thus, a less-than-significant impact is anticipated.

- The proposed project, when combined with 14 related projects in the vicinity of the project area, would incrementally increase noise levels by a approximately three decibels to the "normally unacceptable" category during the weekday. The incremental increase would exceed the significance threshold of a three decibel or more increase to or within the "normally unacceptable" category. Thus, the Proposed Project would significantly contribute to cumulative noise impacts.

1.2.2 Preferred Alternative

- Construction of the Preferred Alternative would increase ambient noise levels by 20 dBA at the single-family residences to the north of the project site and by 11 dBA at both Colin McEwin High School and the Malibu Public Library. These increases would exceed the significance threshold of a five decibel or more increase over the ambient noise level. This exceedance would still occur after implementation of mitigation measures **N1** through **N4**. Thus, a significant impact would occur at these receptors.

- Vehicular traffic noise levels, under "project" conditions, are anticipated to incrementally increase by less than one and one decibel when compared to "no project" conditions. Such increases are not anticipated to exceed the operational phase significance criteria of a three decibels or more increase to or within the "normally unacceptable" category or a five decibels or more increase within the "conditionally acceptable" category of the Land Use Compatibility for Community Noise Environments chart. Thus, a less-than-significant impact is anticipated.

- The Preferred Alternative, when combined with 14 related projects in the vicinity of the project area, would not cause noise levels to exceed the significance threshold of a three decibels or more increase to or within the "normally unacceptable" category or a five

decibels or more increase within the "conditionally acceptable" category. Thus, a cumulative noise impact related to project operations is not anticipated.

2.0 INTRODUCTION

2.1 Purpose of Study

The purpose of this study is to evaluate the potential air quality and noise impacts of the proposed Malibu - La Paz project. Potential air quality and noise impacts are analyzed for construction and operations of the proposed project. Mitigation measures for air quality and noise are recommended where necessary.

2.2 Project Description

The proposed Malibu - La Paz project is a commercial development located at 3700 La Paz Lane in the Civic Center area of the City of Malibu. The project site is located on a 15.29-acre vacant site along the north side of Civic Center Way, east of La Paz Lane. The location of the project site is shown in **Figure 2-1**.

2.2.1 Proposed Project

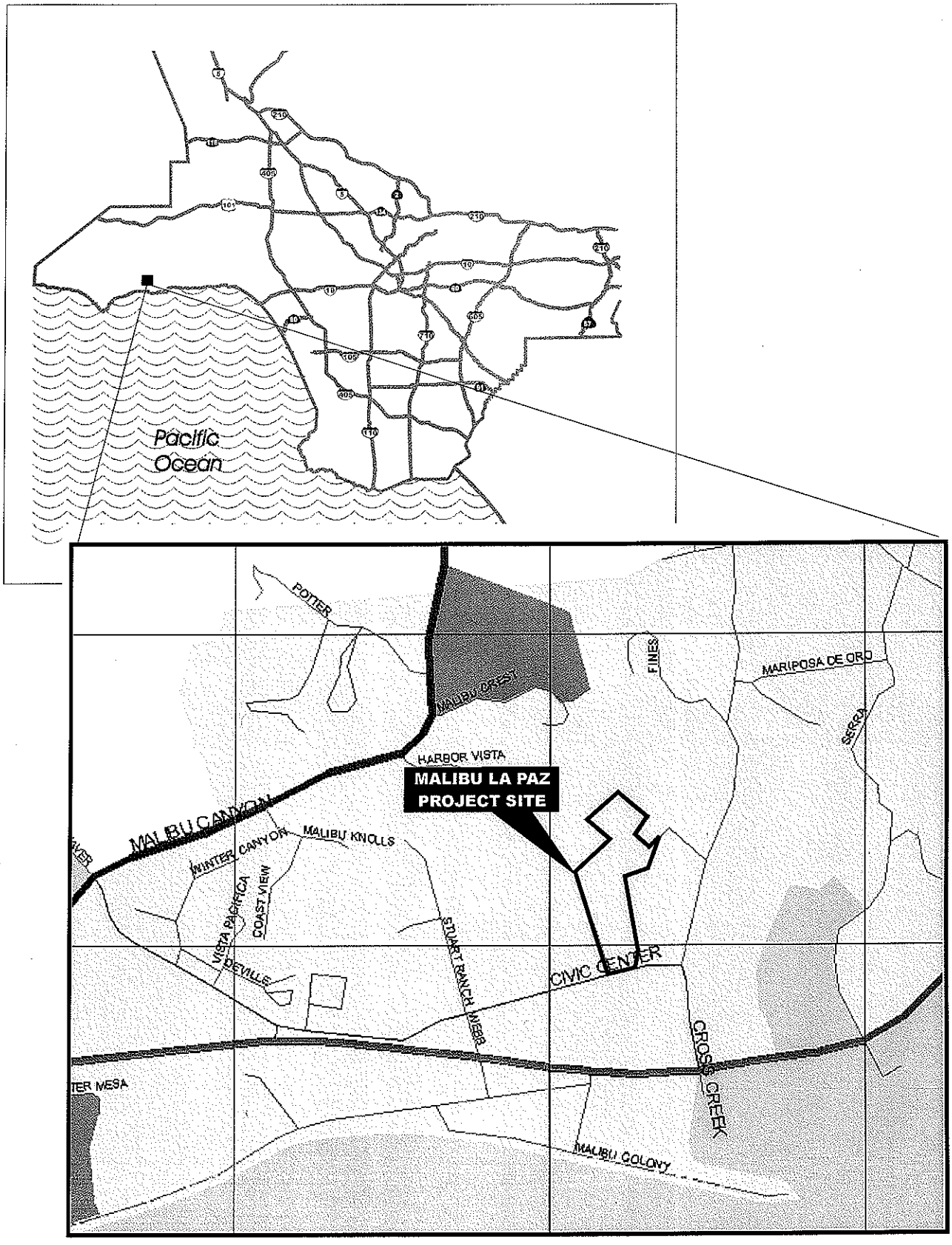
Under the Proposed Project, the project site would be divided into three parcels (Parcels A, B, and C) for a total of approximately 130,935 square feet of commercial floor area.

- Parcel A would consist of seven buildings. The buildings would provide a total of approximately 15,080 square feet of office space and 52,800 square feet of retail space.
- Parcel B would consist of three buildings. The buildings would provide a total of approximately 18,745 square feet of the office space and 24,310 square feet of retail space.
- Parcel C would consist of a City Hall that is approximately 20,000 square feet in size.

2.2.2 Preferred Alternative

Under the Preferred Alternative, the project site would be divided into two parcels (Parcels A and B) for a total of approximately 98,000 square feet of commercial floor area.

- Parcel A would consist of seven buildings. The buildings would provide a total of approximately 52,800 square feet of retail space.
- Parcel B consists of three buildings. The buildings would provide a total of approximately 20,890 square feet of office space and 24,310 square feet of retail space.



SOURCE: Thomas Brothers Maps & Terry A. Hayes Associates LLC

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FIGURE 2-1

PROJECT SITE

3.0 AIR QUALITY

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

3.1 POLLUTANTS & EFFECTS

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}).

Carbon Monoxide. CO, a colorless and odorless gas, interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. In urban areas, CO is emitted by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhausts release most of the CO in urban areas. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient carbon monoxide concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February.[1] The highest CO concentrations measured in the South Coast Air Basin (SCAB) are typically recorded during the winter.

Ozone. O_3, a colorless toxic gas, is the chief component of urban smog. O_3 enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. O_3 also damages vegetation by inhibiting their growth. 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.[2] 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. The greatest source of smog-producing gases is the automobile.

Nitrogen Dioxide. NO_2, a brownish gas, irritates the lungs. It can cause breathing difficulties at high concentrations. 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 NO_x and are

[1] Inversion 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. See Section 3.3.1.

[2] ROG and NO_X are emitted from automobiles and industrial sources.

major contributors to ozone formation. NO_2 also contributes to the formation of PM_{10} (see discussion of PM_{10} below). At atmospheric concentration, NO_2 is only potentially irritating. In high concentrations, the result is a brownish-red cast to the atmosphere and reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm).

Sulfur Dioxide. SO_2 is a product of high-sulfur fuel combustion. Main sources of SO_2 are coal and oil used in power stations, in industries, and for domestic heating. Industrial chemical manufacturing is another source of SO_2. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also cause plant leaves to turn yellow, as well as erode iron and steel. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 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 PM_{10}, of which SO_2 is a contributor.

Suspended Particulate Matter. 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 and motor vehicles undergo chemical reactions in the atmosphere. PM_{10} and $PM_{2.5}$ represent fractions of particulate matter. Respirable particulate matter (PM_{10}) refers to particulate matter less than 10 microns in diameter, about one/seventh the thickness of a human hair. Fine particulate matter ($PM_{2.5}$) refers to particulate matter that is 2.5 microns or less in diameter, roughly 1/28th the diameter of a human hair. 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. $PM_{2.5}$ result from fuel combustion (from motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur dioxide, nitrogen oxides, and volatile organic compounds.

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. PM_{10} and $PM_{2.5}$ can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas, particles 2.5 to 10 microns in diameter tend to collect in the upper portion of the respiratory system, particles 2.5 microns or less are so tiny that they can penetrate deeper into the lungs and damage lung tissues.[3] Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

[3] The NAAQS for $PM_{2.5}$ was adopted in 1997. Presently, no methodologies for determining impacts relating to $PM_{2.5}$ have been developed or adopted by federal, state, or regional agencies. Additionally, no strategies or mitigation programs for $PM_{2.5}$ have been developed or adopted by Federal, State, or regional agencies. Currently, this standard is not enforceable. However, the standard may be reinstated in the future. Thus, this air quality analysis does not analyze $PM_{2.5}$.

3.2 REGULATORY SETTING

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

United States Environmental Protection Agency. USEPA is responsible for enforcing the Federal CAA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

California Air Resources Board. In California, 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 CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective on March 1996. 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.

South Coast Air Quality Management District. SCAQMD monitors air quality within the project area. The 1977 Lewis Air Quality Management Act created SCAQMD to coordinate air quality planning efforts throughout southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SCAB). Specifically, SCAQMD is responsible 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. Programs that were developed include air quality rules and regulations that regulate stationary source, area source, point source and certain mobile source emissions. 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.

SCAB is a subregion of the SCAQMD and covers an area of 6,745 square miles. SCAB includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. SCAB is bounded by Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (**Figure 3-1**).

3.2.1 Attainment Status

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant 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 the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and are not used as a basis for designating areas as non-attainment.

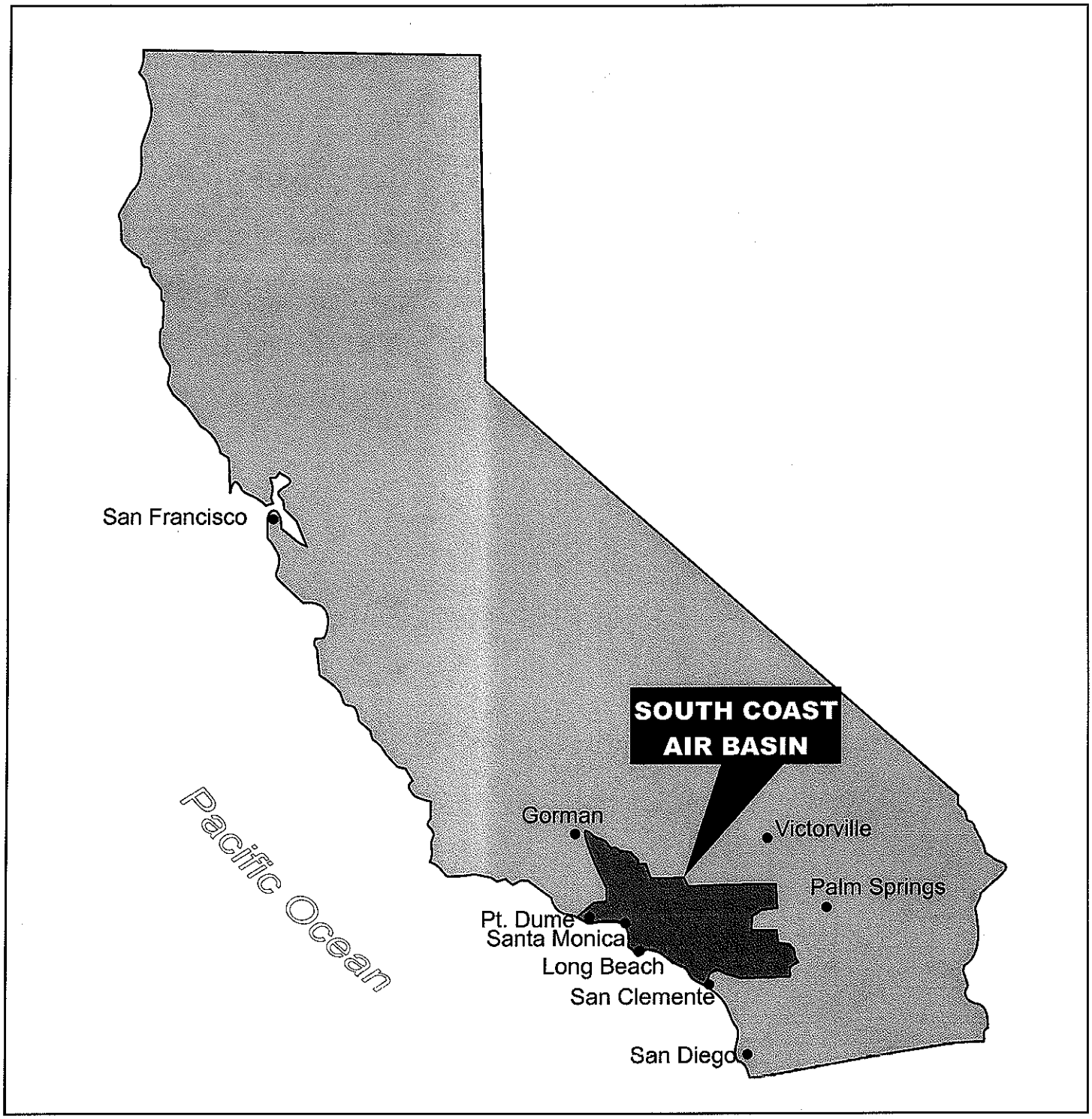
Under the CCAA, the Los Angeles County portion of SCAB is designated as a non-attainment area for O_3, CO and PM_{10}. The air basin is designated as an attainment area for NO_2, SO_2, sulfates, and lead.[4]

3.2.2 Air Quality Management Plan

All areas designated as non-attainment under the CCAA are required to prepare plans showing how the area would meet the state air quality standards by its attainment dates. The Air Quality Management Plan (AQMP) is the region's plan for improving air quality in the region. It addresses CAA and CCAA requirements and demonstrates attainment with State and Federal ambient air quality standards. The AQMP is prepared by SCAQMD and the Southern California Association of Governments (SCAG). The AQMP provides policies and control measures that reduce emissions to attain both state and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the SCAB must demonstrate that daily construction and operational emissions thresholds, as established by the SCAB, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

The 2003 AQMP is the most recent air quality plan adopted by SCAQMD. SCAQMD adopted the 2003 AQMP on August 1, 2003. The 2003 AQMP updates the attainment demonstration for the federal standards of O_3 and PM_{10}, replaces the 1997 attainment demonstration for the federal CO standard, provides a basis for a CO maintenance plan for the future, and updates the maintenance plan for the federal NO_2 standard that SCAB has met since 1992. The 2003 AQMP also addresses several State and Federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for SCAB.

[4] California Air Resources Board, *Proposed Area Designations and Maps*, September 2000.



LEGEND:

South Coast Air Basin

State of California

APPROX. SCALE

0 75 150 MILES

SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998

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FIGURE 3-1

SOUTH COAST AIR BASIN

3.2.3 National and State Ambient Air Quality Standards

As required by the Federal CAA, NAAQS have been established for six major air pollutants: CO, NO_2, O_3, PM_{10}, SO_2, and lead. Pursuant to the CCAA, the State of California has established CAAQS. CAAQS are generally more stringent than the corresponding federal standards (NAAQS) and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Since CAAQS are more stringent than NAAQS, CAAQS are used as the comparative standard in the air quality analysis contained in this report.

Both State and Federal standards are summarized in **Table 3-1.** The "primary" standards have been established to protect the public health. The "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.

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Period	California Standard	Federal Standards	
			Primary	Secondary
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m^3)	0.12 ppm (235 µg/m^3)	Same as Primary Standard
	8 hour	--	0.08 ppm (157 µg/m^3)	
Respirable Particulate Matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m^3	50 µg/m^3	
Carbon Monoxide(CO)	8 hour	9.0 (10 mg/m3)	9.0 (10 mg/m3)	None
	1 hour	20 ppm (23 mg/m3)	35 ppm (40 mg/m3)	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	--	0.053 ppm (100 µg/m^3)	Same as Primary Standard
	1 hour	0.25 ppm (470 µg/m^3)	--	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	0.03 ppm (80 µg/m^3)	--
	24 hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	--
	3 hour	--	--	0.5 ppm (1300 µg/m^3)
	1 hour	0.25 ppm (655 µg/m^3)	--	--

SOURCE: California Air Resources Board, *Federal and State Air Quality Standards* (7/9/2003)

3.3 EXISTING AIR QUALITY

3.3.1 Air Pollution Climatology

The project site is located within the Los Angeles County portion of SCAB. SCAB is an area of high air pollution potential due to its climate and topography. SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The City of Malibu is typical of some of the SCAB's best air quality areas because of its location along the coast, upwind from most mobile and stationary sources. Ambient pollution concentrations are typically higher in the San Gabriel Valley and near Riverside, at the foot of the San Gabriel Mountains.

SCAB experiences frequent temperature inversions. Inversions is a critical factor in the degradation of air quality in the region. Temperature typically decreases with height. 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 mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating pollution, commonly referred to as smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains.

During the fall and winter, air quality problems are created due to CO and NO_2 emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). Morning levels are relatively high due to the large number of cars during the commute and colder temperatures. The high levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in SCAB are associated with heavy traffic. NO_2 levels are also generally higher during autumn or winter days, particularly on days with summer-like conditions.

3.3.2 Local Climate

SCAB lies in the semi-permanent high pressure zone of the eastern Pacific (Pacific High), resulting in a mild climate tempered by cool sea breezes with light average wind speeds. This usual mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The summer climate in the City of Malibu is strongly influenced by stable air flowing out of the Pacific High to the west. During the Malibu winter, the Pacific High migrates south, putting the City on the fringe of the influence of a low pressure cell. The combined effect of these meteorologic and oceanographic systems is a tempering of local weather such that extremes of wind, temperature and precipitation are relatively uncommon.

Skies are mostly clear from mid-summer through autumn. Heavy cloud cover and fog occur primarily during spring and early summer when stratus clouds associated with the marine layer move in from the west. Compared to other locations of the same latitude and climate in SCAB, Malibu summers are generally cooler with temperatures in the upper 60s to low 70s. Winters tend to be mild within the range of the upper 50s to low 60s. Precipitation occurs mostly during the winter

and relatively infrequently during the summer. Total precipitation in the project areas averages approximately 17.3 inches annually. Precipitation averages approximately 10.4 inches during the winter and approximately 0.2 inches during the summer.[5]

Within the project site and its vicinity, the average wind speed, as recorded at the West Los Angeles Wind Monitoring Station, is approximately 3.4 miles per hour, with calm winds occurring approximately 19 percent of the time. Wind in the vicinity of the project site predominately blows from the southwest.[6]

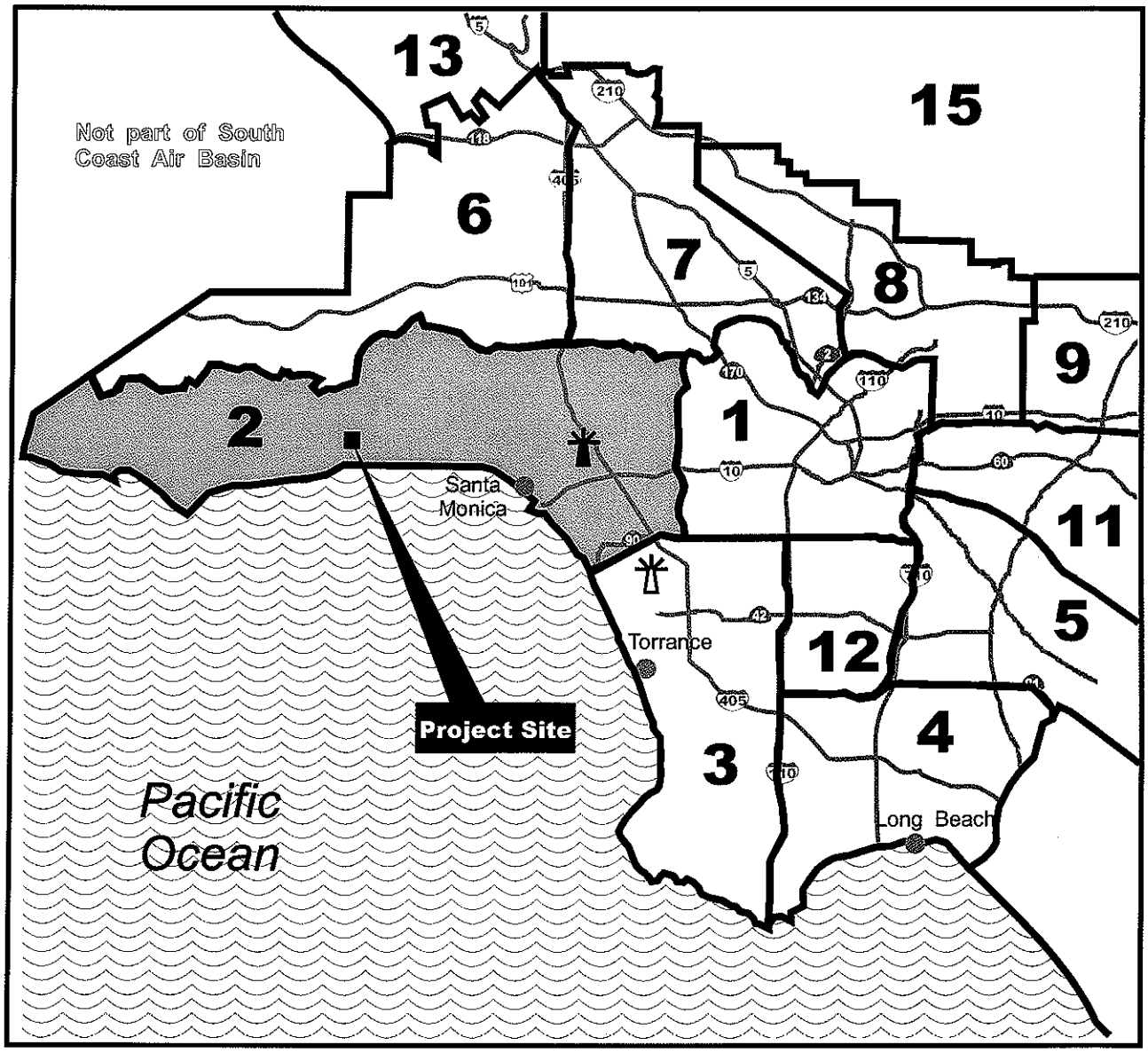
3.3.3 Air Monitoring Data

SCAQMD monitors air quality conditions at 37 locations throughout SCAB. The project site is located in SCAQMD's Northwest Los Angeles County Coastal Air Monitoring Area (No. 2), which is served by the West Los Angeles - VA Hospital Monitoring Station, located at the intersection of Wilshire Boulevard and Sawtelle Boulevard in the City of Los Angeles (**Figure 3-2**). The West Los Angeles - VA Hospital Monitoring Station is approximately 13 miles from the project site. Criteria pollutants monitored at the West Los Angeles - VA Hospital Monitoring Station includes O_3, CO, and NO_2. The monitoring station does not monitor SO_2 and PM_{10}. The Hawthorne Monitoring Station, located at 5234 West 120th Street in Hawthorne, is within the same general forecast area as the project site. The Hawthorne Monitoring Station monitors these two pollutants.[7] The Hawthorne Monitoring Station is approximately 19 miles from the project site. Historical data from the West Los Angeles - VA Hospital and Hawthorne Monitoring Stations were used to characterize existing conditions within the vicinity of the project site and to establish a baseline for estimating future conditions with and without the proposed project.

[5] Western Regional Climate Center, 2001.

[6] Based on data from the West Los Angeles wind monitoring station. See Appendix A.

[7] General forecast areas are larger groupings of more specific air monitoring areas.



LEGEND:

West Los Angeles Monitoring Station

Hawthorne Monitoring Station

Air Monitoring Areas in Los Angeles County:

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
14. Antelope Valley
15. San Gabriel Mountains

SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1989

APPROX. SCALE

N

0 3.0 6.0 9.0 MILES

FIGURE 3-2

AIR MONITORING AREAS

Table 3-2 shows the number of violations recorded at the two Monitoring Station during the 2001-2003 period. The CAAQS for the criteria pollutants are also shown in the table. As **Table 3-2** indicates, criteria pollutants CO, NO_2, and SO_2 did not exceed the CAAQS during the 2001-2003 period. However, O_3 exceeded the State standard one to 11 times and PM_{10} exceeded the State standard 18 to 71 times during the same period.

TABLE 3-2: 2001-2003 CRITERIA POLLUTANT VIOLATIONS - WEST LOS ANGELES-VA HOSPITAL AND HAWTHORNE MONITORING STATIONS /a/

Pollutant	State Standard	Number of Days Above State Standard		
		2001	2002	2003
Ozone	0.09 ppm (1-hour)	1	1	11
Carbon Monoxide	9.0 ppm (8-hour average)	0	0	0
Nitrogen Dioxide	0.25 ppm (1-hour)	0	0	0
Sulfur Dioxide	0.04 ppm (24-hour average)	0	0	0
PM_{10}	50 $\mu g/m^3$ (24-hour average)	48	71	18

/a/ Data for ozone, carbon monoxide, and nitrogen dioxide were taken at the West Los Angeles-VA Hospital Monitoring Station. Data for sulfur dioxide and PM_{10} were taken at the Hawthorne Monitoring Station.
SOURCE: California Air Resources Board, see Appendix B

3.3.4 Background Carbon Monoxide Conditions

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 and characteristics can be modeled using USEPA and SCAQMD methods. In other words, operational air quality impacts associated with a project are generally best reflected through estimated changes in CO concentrations.

For purposes of this assessment, the ambient, or background, CO concentration is first established. SCAQMD defines the ambient CO concentration as the highest eight-hour reading over the past three years. A review of data from the West Los Angeles - VA Hospital Monitoring Station for the 2001-2003 period indicates that the average eight-hour background concentration is approximately 3.2 ppm.[8] Assuming a persistence factor of 0.6, the estimated one-hour background concentration is approximately 5.3 ppm.[9] The existing eight- and one-hour background concentrations in the project vicinity do not exceed the State CO standard of 9.0 ppm and 20.0 ppm, respectively.

3.3.5 Existing Carbon Monoxide Concentrations at Project Area Intersections

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic is the primary source of CO. CO is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease

[8] See Appendix B.

[9] Persistence factor is the ratio between the eight- and one-hour CO concentrations measured at a continuous air monitoring station. A persistence factor of 0.6 is typically used in suburban areas.

substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found along sidewalks 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 five study intersections were modeled. The study intersections were selected based on traffic level of service (LOS).[10] The five intersections that are analyzed in this report are anticipated to have LOS E or F under "project" conditions. The selected intersections are as follow:

- Mailbu Canyon Road / Pacific Coast Highway
- Webb Way / Pacific Coast Highway
- Cross Creek Road / Pacific Coast Highway
- Topanga Canyon Road / Pacific Coast Highway
- Webb Way / Civic Center Road

During the weekend, two intersections would experience LOS E or F under "project" conditions. These intersections are as follow:

- Webb Way / Pacific Coast Highway
- Cross Creek Road / Pacific Coast Highway

At each intersection, traffic-related CO contributions were added to background CO conditions, as discussed above. Traffic CO contributions were estimated using USEPA CAL3QHC dispersion model, which utilizes traffic volume inputs and CARB EMFAC2002 emissions factors. Existing weekday conditions at the study intersections are shown in **Table 3-3**. The existing weekend conditions at the study intersections are shown in **Table 3-4**. One-hour CO concentrations range from approximately 6.5 ppm to 8.4 ppm during the weekday and from approximately 7.4 ppm to 7.9 ppm during the weekend. Eight-hour CO concentrations range from approximately 3.9 ppm to 5.1 ppm during the weekday and approximately 4.5 ppm to 4.8 ppm during the weekend. Presently, none of the study intersections exceed the State one- and eight-hour CO standard of 20.0 ppm and 9.0 ppm, respectively.

[10]Level of service is used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service ranges from A (free flow, little congestion) to F (forced flow, extreme congestion).

TABLE 3-3: EXISTING WEEKDAY CARBON MONOXIDE CONCENTRATIONS /a/

Intersection	Parts per Million	
	1-hour	8-hour
Malibu Canyon Road / Pacific Coast Highway	7.4	4.5
Webb Way / Pacific Coast Highway	7.3	4.4
Cross Creek Road / Pacific Coast Highway	8.0	4.8
Topanga Canyon Road / Pacific Coast Highway	8.4	5.1
Webb Way / Civic Center Road	6.5	3.9
State Standard	**20.0**	**9.0**

/a/ All concentrations include one- and eight-hour ambient concentrations of 5.3 ppm and 3.2 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC, Appendix C

TABLE 3-4: EXISTING WEEKEND CARBON MONOXIDE CONCENTRATIONS /a/

Intersection	Parts per Million	
	1-hour	8-hour
Webb Way / Pacific Coast Highway	7.43	4.46
Cross Creek Road / Pacific Coast Highway	7.93	4.76
State Standard	**20.0**	**9.0**

/a/ All concentrations include one- and eight-hour ambient concentrations of 5.3 ppm and 3.2 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC, Appendix C

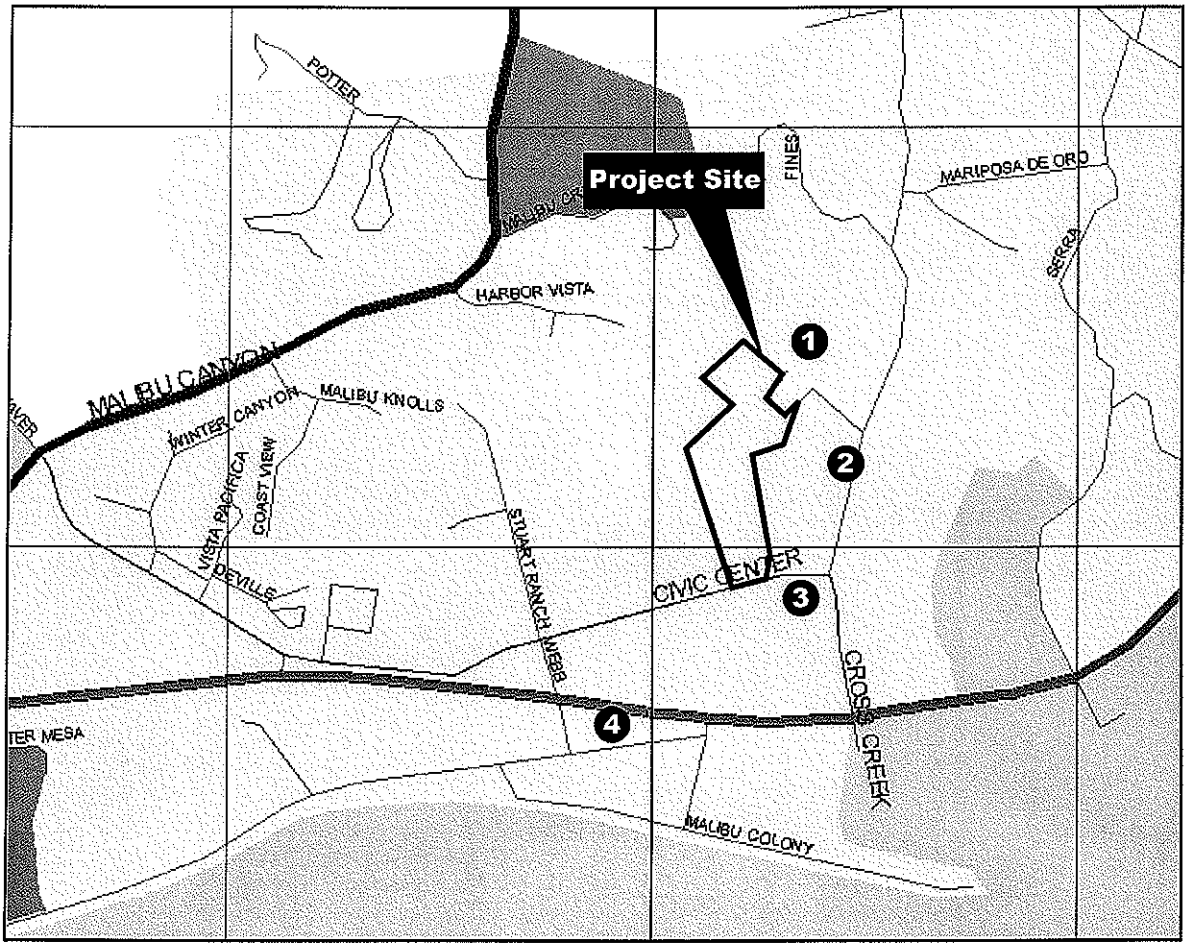
3.3.6 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The following people are most likely to be affected by air pollution, as identified by CARB: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. These locations are called sensitive receptors.

Four representative sensitive receptors have been identified within one-quarter mile of the project site. These sensitive receptors are listed below and are shown in **Figure 3-3**:

- Residences north of project site
- Papa Jack's Skate Park
- Colin McEwin High School
- St. John's Malibu - Urgent Care

It should be noted that these sensitive receptors do not constitute a comprehensive list of all sensitive uses within the vicinity of the project site. Rather, they are intended to represent a sampling of the different types of sensitive uses in the area. For purposes of providing a worst-case analysis, CO concentrations have been modeled at sidewalk locations adjacent to the study area intersections that are anticipated to have LOS E or F under "project" conditions. Since CO is a localized gas which disperses quickly, concentrations are highest within close proximity to intersections. Concentrations at specific sensitive receptors will be substantially lower than those concentrations immediately adjacent to intersections.



LEGEND:

1. Single-Family Residences north of project site
2. Papa Jack's Skate Park
3. Colin McEwin High School
4. St. John's Malibu Urgent Care

SOURCE: Terry A. Hayes Associates LLC

FIGURE 3-3

AIR QUALITY SENSITIVE RECEPTOR LOCATIONS

3.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.4.1 Methodology

This air quality analysis is consistent with the methods described in the *SCAQMD California Environmental Quality Act (CEQA) Handbook* (1993 edition).

The following calculation methods and estimation models were used to determine air quality impacts: SCAQMD construction emissions calculation formulas, CARB's EMFAC2002 emissions factor model, and USEPA's CAL3QHC dispersion model.

The proposed project does not contain lead emissions sources. Therefore, emissions and concentrations related to this pollutant are not analyzed in this report.[11]

3.4.2 Significance Criteria

The following are the significance criteria that the SCAQMD has established to determine project impacts.

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily construction emissions were to exceed the SCAQMD construction emissions thresholds for CO, ROG, NO_X, SO_X, or PM_{10}. The SCAQMD significance thresholds for construction activities appear in **Table 3-5**.

TABLE 3-5: SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS

Criteria Pollutant	Pounds Per Day
Carbon Monoxide (CO)	550
Reactive Organic Gas (ROG)	75
Nitrogen Oxides (NO_X)	100
Sulfur Oxides (SO_X)	150
Particulates (PM_{10})	150

SOURCE: South Coast Air Quality Management District

[11] 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.

Operations Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily operational emissions were to exceed SCAQMD operational emissions thresholds for CO, ROG, NO_X, SO_X, or PM_{10}. SCAQMD significance thresholds for operational emissions appear in **Table 3-6**.

- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour periods are 20.0 ppm and 9.0 ppm, respectively. If CO concentrations currently exceed the CAAQS, then an incremental increase of 1.0 ppm over "no project" conditions for the one-hour period would be considered a significant impact. An incremental increase of 0.45 ppm over the "no project" conditions for the eight-hour period would be considered significant.[12]

TABLE 3-6: SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS

Criteria Pollutant	Pounds Per Day
Carbon Monoxide (CO)	550
Reactive Organic Gas (ROG)	55
Nitrogen Oxides (NO_X)	55
Sulfur Oxides (SO_X)	150
Particulates (PM_{10})	150

SOURCE: South Coast Air Quality Management District

The proposed project does not contain any lead, hydrogen sulfide, or sulfates emissions sources. Therefore, emissions and concentrations related to these pollutants would not be analyzed in this report.

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Construction Phase Impacts

Proposed Project. Construction for the Proposed Project would generate pollutant emissions from the following construction activities: (1) grading and excavation, (2) construction workers traveling to and from project sites, (3) delivery and hauling of construction supplies and debris to and from project sites, (4) fuel combustion by on-site construction equipment, and (5) architectural coating. 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 3-7 shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the *SCAQMD CEQA Air Quality Handbook*, Appendix to Chapter 9. As shown, estimated daily construction

[12] Consistent with the SCAQMD Regulation XIII definition of a significant impact.

emissions are not anticipated to exceed any of the SCAQMD thresholds, and a less-than-significant impact is anticipated.

Daily PM_{10} emissions identified in **Table 3-7** assume proper implementation of SCAQMD Rule 403 (see discussion on "Fugitive Dust Abatement", below).[13] Implementation of mitigation measures **AQ1** through **AQ10** (see "Construction Phase Mitigation Measures," below) would ensure proper implementation of Rule 403 and that less-than-significant impacts are anticipated.

TABLE 3-7: ESTIMATED DAILY CONSTRUCTION EMISSIONS

Construction Phase	Pounds Per Day				
	CO	ROG	NO_X	SO_X	PM_{10} /a/
SCAQMD Threshold	**550**	**75**	**100**	**150**	**150**
Proposed Project					
Grading/Excavation	25	4	49	3	98
Foundation	11	2	18	1	18
Architectural Coating	5	14	1	<1	<1
Maximum	25	14	49	3	98
Exceed Threshold?	No	No	No	No	No
Preferred Alternative					
Grading/Excavation	23	4	46	3	58
Foundation	10	1	16	1	16
Architectural Coating	4	10	<1	<1	<1
Maximum	23	10	46	3	58
Exceed Threshold?	No	No	No	No	No

/a/ Assumes proper implementation of SCAQMD Rule 403.
SOURCE: Terry A. Hayes Associates LLC, Appendix D

Preferred Alternative. Similar to the Proposed Project, construction for the Preferred Alternative would generate pollutant emissions from the following construction activities: (1) grading and excavation, (2) construction workers traveling to and from project sites, (3) delivery and hauling of construction supplies and debris to and from project sites, (4) fuel combustion by on-site construction equipment, and (5) architectural coating. 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.

[13] Implementation of Rule 403 is estimated to reduce dust and PM_{10} emissions by approximately 62 percent during the grading/excavation phase for the Proposed Project. The larger reduction in PM_{10} emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM_{10} emissions, shown in **Table 3-6**, would not exceed the SCAQMD significance threshold of 150 pounds per day.

Table 3-7 shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the *SCAQMD CEQA Air Quality Handbook*, Appendix to Chapter 9. As shown, estimated daily construction emissions are not anticipated to exceed any of the SCAQMD thresholds, and a less-than-significant impact is anticipated.

Daily PM_{10} emissions identified in **Table 3-7** assume proper implementation of SCAQMD Rule 403 (see discussion on "Fugitive Dust Abatement", below).[14] Implementation of mitigation measures **AQ1** through **AQ10** (see "Construction Phase Mitigation Measures," below) would ensure proper implementation of Rule 403 and that less-than-significant impacts are anticipated.

Fugitive Dust Abatement

The proposed project is subject to the provisions of SCAQMD Rule 403-Fugitive Dust. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust. Rule 403 requires the use of best available control measures to suppress fugitive dust emissions. The requirements of Rule 403 that are applicable to the proposed project are as follows:

> (1) 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.
>
> (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.
>
> (3) 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 in **Table 3-8** 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.[15]

---

[14] Implementation of Rule 403 is estimated to reduce dust and PM_{10} emissions by approximately 67 percent during the grading/excavation phase for the Preferred Alternative. The larger reduction in PM_{10} emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM_{10} emissions, shown in **Table 3-6**, would not exceed the SCAQMD significance threshold of 150 pounds per day.

[15] See Appendix E for the complete text of SCAQMD Rule 403.

TABLE 3-8: SCAQMD RULE 403 - TRACK-OUT CONTROL OPTIONS	
Control Options	
(1)	Pave or apply chemical stabilization and sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that existing vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified in this table may be used.
SOURCE: South Coast Air Quality Management District, Rule 403 - Fugitive Dust, Table 3, Appendix E	

Construction Phase Mitigation Measures

Proposed Project. The following is a list of feasible control measures that the SCAQMD recommends for construction emissions of PM_{10}. These mitigation measures shall be implemented for all areas (both on-site and off-site) where construction would occur.

AQ1 The construction area and vicinity (500-foot radius) shall be swept (preferably with water sweepers) and watered at least twice daily.

AQ2 All unpaved roads, parking and staging areas shall be watered at least once every two hours of active operations.

AQ3 Site access points shall be swept/washed within thirty minutes of visible dirt deposition.

AQ4 On-site stockpiles of debris, dirt or rusty material shall be covered or watered at least twice daily.

AQ5 All haul trucks hauling soil, sand and other loose materials shall either be covered or maintain two feet of freeboard.

AQ6 All haul trucks shall have a capacity of no less than twelve and three-quarter (12.75) cubic yard.

AQ7 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.

AQ8 Operations on any unpaved surfaces shall be suspended when winds exceed 25 mph.

AQ9 Traffic speeds on unpaved roads shall be limited to 15 miles per hour.

AQ10 Operations on any unpaved surfaces shall be suspended during first and second stage smog alerts.

Preferred Alternative. See Mitigation Measures **AQ1** through **AQ10**, above.

Impacts After Mitigation

Proposed Project. Implementation of mitigation measures **AQ1** through **AQ10** is estimated to reduce PM_{10} emissions to approximately 85 ppd during the grading phase of the Proposed Project. PM_{10} emissions would not exceed the SCAQMD threshold of 150 ppd. Thus, less-than-significant impacts are anticipated.

Preferred Alternative. Similar to the Proposed Project, implementation of mitigation measures **AQ1** through **AQ10** is estimated to reduce PM_{10} emissions to approximately 85 ppd during the grading phase of the Preferred Alternative. PM_{10} emissions would not exceed the SCAQMD threshold of 150 ppd. Thus, less-than-significant impacts are anticipated.

3.5.2 Operational Phase Impacts

Regional Impacts

Proposed Project. Motor vehicles are the predominate source of long-term project emissions. According to the project traffic consultant, Kaku Associates, the Proposed Project is anticipated to generate an additional 2,863 daily vehicle trips during the weekday and 2,241 daily vehicle trips on Saturday..

Mobile emissions were estimated using trip generation statistics, average trip length statistics, and CARB emission factors. The results, shown in **Table 3-9**, indicate that the Proposed Project is not anticipated to exceed any of the SCAQMD significance threshold for criteria pollutants.

Preferred Alternative. Similar to the Proposed Project, motor vehicles are the predominate source of long-term project emissions. According to the project traffic consultant, Kaku Associates, the Preferred Alternative is anticipated to generate an additional 2,437 daily vehicle trips during the weekday and 2,170 daily vehicle trips during the weekend.

Mobile emissions were estimated using trip generation statistics, average trip length statistics, and CARB emission factors. The results, shown in **Table 3-9**, indicate that the Preferred Alternative is not anticipated to exceed any of the SCAQMD significance threshold for criteria pollutants.

TABLE 3-9: DAILY OPERATIONS EMISSIONS					
	Pounds per Day				
Pollutants	**CO**	**ROG**	**NO_X**	**SO_X**	**PM_{10}**
Proposed Project					
Weekday	214	24	46	<1	2
Weekend	167	18	36	<1	1
Preferred Alternative					
Weekday	182	20	39	<1	1
Weekend	162	18	35	<1	1
SCAQMD Threshold	**550**	**55**	**55**	**150**	**150**
SOURCE: Terry A. Hayes Associates LLC, Appendix F					

Localized Impacts

Overall, CO concentrations in year 2007 are expected to be lower than existing conditions due to stringent state and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the Proposed Project and Preferred Alternative,[16] CO emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as from normal 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.

Proposed Project. The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2007 "No Project" and "Proposed Project" conditions. Weekday CO concentrations at the affected study intersections are shown in **Table 3-10**. Weekend CO concentrations at the affected study intersections are shown in **Table 3-11**. As indicated, one-hour CO concentrations under "Proposed Project" conditions would range from approximately 5.4 ppm to 7.1 ppm during the weekday and from approximately 6.1 ppm to 6.6 ppm during the weekend at worst-case sidewalk receptors. "Proposed Project" eight-hour CO concentrations are anticipated to range from approximately 3.3 ppm to 4.3 ppm during the weekday and from approximately 3.7 ppm to 4.0 ppm during the weekend. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations at the affected study intersections. Thus, a less-than-significant impact is anticipated.

CO is a gas that disperses quickly. Thus, CO concentrations at sensitive receptor locations are expected to be much lower than CO concentrations at sidewalks that adjoin roadway intersections, which are modeled in this analysis. Additionally, the sidewalk locations modeled in this analysis were selected because the sidewalks adjoin intersections that have the worst LOS under project

[16] Traffic and Circulation Study for the Malibu La Paz Project, KAKU Associates, Inc., June 2003.

conditions.[17] Sensitive receptors that are located away from the sidewalk locations or are located near roadway intersections with better LOS are expected to have lower CO concentrations. As shown in **Table 3-10** and **Table 3-11**, CO concentrations would not exceed the State one- and eight-hour standards at the analyzed sidewalk locations. Thus, no significant increase in CO concentrations at sensitive receptor locations is expected, and no significant impacts would occur.

Preferred Alternative. The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2007 "No Project" and "Preferred Alternative" conditions. CO concentrations at the affected study intersections are shown in **Table 3-10**. Weekend CO concentrations at the affected study intersections are shown in **Table 3-11**. As indicated, one-hour CO concentrations under "Preferred Alternative" conditions would range from approximately 5.4 ppm to 7.1 ppm during the weekday at worst-case sidewalk receptors. During the weekend, one-hour CO concentrations would range from approximately 6.1 ppm to 6.6 ppm. The "Preferred Alternative" eight-hour CO concentrations are anticipated to range from approximately 3.3 ppm to 4.3 ppm during the weekday and from approximately 3.7 ppm to 4.0 ppm during the weekend. The State one-and eight-hour standard of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations at the affected study intersections. Thus, a less-than-significant impact is anticipated.

CO is a gas that disperses quickly. Thus, CO concentrations at sensitive receptor locations are expected to be much lower than CO concentrations at sidewalks that adjoin roadway intersections, which are the model in this analysis. Additionally, the sidewalk locations modeled in this analysis were selected because the sidewalks adjoin intersections that have the worst LOS under project conditions.[18] Sensitive receptors that are located away from the sidewalk locations or are located near roadway intersections with better LOS are expected to have lower CO concentrations. As shown in **Table 3-10** and **Table 3-11**, CO concentrations would not exceed the State one- and eight-hour standards at the analyzed sidewalk locations. Thus, no significant increase in CO concentrations at sensitive receptor locations is expected, and no significant impacts would occur.

[17] Level of service is used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion). The affected intersections that are analyzed in this report are anticipated to have LOS E or F under "project" conditions.

[18] Level of service is used to indicate the quality of traffic flow on roadway segments and at intersections. Level of service ranges from LOS A (free flow, little congestion) to LOS F (forced flow, extreme congestion). The five intersections that are analyzed in this report are anticipated to have LOS E or F under "project" conditions.

TABLE 3-10: 2007 WEEKDAY CARBON MONOXIDE CONCENTRATIONS /a/

Intersection	1-hour (parts per million)			8-hour (parts per million)		
	No Project	Proposed Project	Preferred Alternative	No Project	Proposed Project	Preferred Alternative
Malibu Canyon Road / Pacific Coast Highway	6.7	6.7	6.7	4.0	4.0	4.0
Webb Way / Pacific Coast Highway	6.0	6.3	6.2	3.6	3.8	3.7
Cross Creek Road / Pacific Coast Highway	6.7	6.7	6.8	4.0	4.0	4.1
Topanga Canyon Road / Pacific Coast Highway	7.1	7.1	7.1	4.3	4.3	4.3
Webb Way / Civic Center Road	5.6	5.4	5.4	3.4	3.3	3.3
State Standard	**20.0**			**9.0**		

/a/ CO concentrations include year 2007 one- and eight-hour ambient concentrations of 4.3 ppm and 2.6 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC, see Appendix C

TABLE 3-11: 2007 WEEKEND CARBON MONOXIDE CONCENTRATIONS /a/

Intersection	1-hour (parts per million)			8-hour (parts per million)		
	No Project	Proposed Project	Preferred Alternative	No Project	Proposed Project	Preferred Alternative
Webb Way / Pacific Coast Highway	6.1	6.1	6.1	3.7	3.7	3.7
Cross Creek Road / Pacific Coast Highway	6.6	6.6	6.6	4.0	4.0	4.0
State Standard	**20.0**			**9.0**		

/a/ CO concentrations include year 2007 one- and eight-hour ambient concentrations of 4.3 ppm and 2.6 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC, see Appendix C

Operational Phase Mitigation Measures

Proposed Project. No mitigation measures are required since operations of the Proposed Project would not exceed any of the SCAQMD significance thresholds or the State one- and eight-hour CO standards.

Preferred Alternative. No mitigation measures are required since operations of the Preferred Alternative would not exceed any of the SCAQMD significance thresholds or the State one- and eight-hour CO standards.

Impacts After Mitigation

Proposed Project. Operations of the Proposed Project would not exceed any of the SCAQMD significance thresholds or the State one- and eight-hour CO standards. Thus, less-than-significant impacts are anticipated.

Preferred Alternative. Operations of the Preferred Alternative would not exceed any of the SCAQMD significance thresholds or the State one- and eight-hour CO standards. Thus, less-than-significant impacts are anticipated.

3.5.3 Cumulative Impacts

Proposed Project. Fourteen related projects have been identified within the area that may be affected by the Proposed Project. Using SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated (by multiplying each criteria pollutant threshold by the total number of individual projects) to establish a baseline from which to evaluate cumulative project emissions. **Table 3-12** shows the criteria pollutant emissions for the related projects. Criteria pollutant emissions from all related projects, as well as the Proposed Project, were estimated using trip generation statistics, average trip length statistics, and CARB emission factors.

As indicated in **Table 3-12**, the 14 related projects in combination with the Proposed Project (number 15) are not anticipated to exceed any of the cumulative SCAQMD operational emissions thresholds. The Proposed Project, when combined with the 14 related projects, would not exceed any of the cumulative SCAQMD emissions thresholds. Additionally, as discussed previously, the Proposed Project is not anticipated to exceed any of the SCAQMD operational emissions thresholds. Thus, the Proposed Project would not significantly contribute to cumulative emissions.

Preferred Alternative. Fourteen related projects have been identified within the area that may be affected by the Preferred Alternative. Using SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated (by multiplying each criteria pollutant threshold by the total number of individual projects) to establish a baseline from which to evaluate cumulative project emissions. **Table 3-13** shows the criteria pollutant emissions for the related projects. Criteria pollutant emissions from all related projects, as well as the Preferred Alternative, were estimated using trip generation statistics, average trip length statistics, and CARB emission factors.

As indicated in **Table 3-13**, the 14 related projects in combination with the Preferred Alternative (number 15) are not anticipated to exceed any of the cumulative SCAQMD operational emissions thresholds. The Preferred Alternative, when combined with the 14 related projects, would not exceed any of the cumulative SCAQMD emissions thresholds. Additionally, as discussed previously, the Preferred Alternative is not anticipated to exceed any of the SCAQMD operational emissions thresholds. Thus, the Preferred Alternative would not significantly contribute to cumulative emissions.

TABLE 3-12: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - PROPOSED PROJECT

Project	Pounds per Day									
	Weekday					Weekend				
	CO	ROG	NO_X	SO_X	PM_{10}	CO	ROG	NO_X	SO_X	PM_{10}
(1) Rancho Malibu Hotel	115	13	25	<1	1	108	12	23	<1	1
(2) Pepperdine University Upper Campus	92	10	20	<1	1	69	8	15	<1	1
(3) Forge Lodge	19	2	4	<1	<1	22	2	5	<1	<1
(4) Pepperdine Office Development	71	8	15	<1	1	12	1	3	<1	<1
(5) Proposed Senior HOusing	11	1	2	<1	<1	11	1	2	<1	<1
(6) Single Family Housing Development	6	1	1	<1	<1	6	1	1	<1	<1
(7) Adamson Self-Storage	11	1	2	<1	<1	10	1	2	<1	<1
(8) Shultz	100	11	21	<1	1	11	1	2	<1	<1
(9) Yamaguchi	219	24	47	<1	2	211	23	45	<1	2
(10) Residential	4	<1	<1	<1	<1	5	1	1	<1	<1
(11) Office	21	2	5	<1	<1	4	<1	1	<1	<1
(12) Malibu Pier	83	9	18	<1	1	90	10	19	<1	1
(13) Windsail	52	6	11	<1	<1	52	6	11	<1	<1
(14) Office	17	2	4	<1	<1	3	<1	1	<1	<1
(15) La Paz - Proposed Project	214	24	46	<1	2	167	18	36	<1	1
Total Emissions	***1,035***	***114***	***222***	***1***	***8***	***781***	***86***	***167***	***1***	***6***
Cumulative SCAQMD Thresholds /a/	***8,250***	***825***	***825***	***2,250***	***2,250***	***8,250***	***825***	***825***	***2,250***	***2,250***
Cumulative Project - Percent of Threshold	***13%***	***14%***	***27%***	***<1%***	***<1%***	***9%***	***10%***	***20%***	***<1%***	***<1%***

/a/ Individual project threshold multiplied by the number of individual projects.
SOURCE: Terry A. Hayes Associates LLC, Appendix F

TABLE 3-13: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - PREFERRED ALTERNATIVE

Project	Pounds per Day									
	Weekday					Weekend				
	CO	ROG	NO_X	SO_X	PM_{10}	CO	ROG	NO_X	SO_X	PM_{10}
(1) Rancho Malibu Hotel	115	13	25	<1	1	108	12	23	<1	1
(2) Pepperdine University Upper Campus	92	10	20	<1	1	69	8	15	<1	1
(3) Forge Lodge	19	2	4	<1	<1	22	2	5	<1	<1
(4) Pepperdine Office Development	71	8	15	<1	1	12	1	3	<1	<1
(5) Proposed Senior HOusing	11	1	2	<1	<1	11	1	2	<1	<1
(6) Single Family Housing Development	6	1	1	<1	<1	6	1	1	<1	<1
(7) Adamson Self-Storage	11	1	2	<1	<1	10	1	2	<1	<1
(8) Shultz	100	11	21	<1	1	11	1	2	<1	<1
(9) Yamaguchi	219	24	47	<1	2	211	23	45	<1	2
(10) Residential	4	<1	<1	<1	<1	5	1	1	<1	<1
(11) Office	21	2	5	<1	<1	4	<1	1	<1	<1
(12) Malibu Pier	83	9	18	<1	1	90	10	19	<1	1
(13) Windsail	52	6	11	<1	<1	52	6	11	<1	<1
(14) Office	17	2	4	<1	<1	3	<1	1	<1	<1
(15) La Paz - Preferred Alternative	182	20	39	<1	1	162	18	35	<1	1
Total Emissions	***1,003***	***110***	***215***	***1***	***8***	***776***	***85***	***166***	***1***	***6***
Cumulative SCAQMD Thresholds /a/	***8,250***	***825***	***825***	***2,250***	***2,250***	***8,250***	***825***	***825***	***2,250***	***2,250***
Cumulative Project - Percent of Threshold	***12%***	***13%***	***26%***	***<1***	***<1***	***9%***	***10%***	***20%***	***<1***	***<1***

/a/ Individual project threshold multiplied by the number of individual projects.
SOURCE: Terry A. Hayes Associates LLC, Appendix F

3.6 CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN

Criteria for determining consistency with the 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. There are two key indicators of consistency:

- ***Consistency Criterion No. 1**: 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.*

3.6.1 Proposed Project

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 analysis in Section 3.5.2 indicates that the Proposed Project would not exacerbate existing violations of the State one- and eight-hour CO concentration standards and no significant adverse impacts are anticipated. Therefore, the Proposed Project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the growth projections in the General Plan, then it is consistent with the growth assumptions in the AQMP.

The City of Malibu General Plan designates the project site as CC (Community Commercial). The Proposed Project would construct retail and office uses, as well as a City Hall, on the project site. The development proposed for the Proposed Project is considered consistent with the City of Malibu General Plan. Since the Proposed Project is consistent with the City of Malibu General Plan, it is assumed that the Proposed Project would not exceed the growth projections in the general plan as well as the growth projections established by SCAG. Thus, the Proposed Project complies with Consistency Criterion 2.

The Proposed Project complies with Consistency Criteria 1 and 2. Therefore, the Proposed Project is considered consistent with the AQMP.

3.6.2 Preferred Alternative

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 analysis in Section 3.5.2 indicates that the Preferred Alternative would not exacerbate existing violations of the State one- and eight-hour CO concentration standards and no significant adverse impacts are anticipated. Therefore, the Preferred Alternative complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the growth projections in the General Plan, then it is consistent with the growth assumptions in the AQMP.

The City of Malibu General Plan designates the project site as CC (Community Commercial). The Preferred Alternative would construct retail and office uses on the project site. The development proposed for the Preferred Alternative is considered consistent with the City of Malibu General Plan. Since the Preferred Alternative is consistent with the City of Malibu General Plan, it is assumed that the Preferred Alternative would not exceed the growth projections in the general plan as well as the growth projections established by SCAG. Thus, the Preferred Alternative complies with Consistency Criterion 2.

The Preferred Alternative complies with Consistency Criteria 1 and 2. Therefore, the Preferred Alternative is considered consistent with the AQMP.

4.0 NOISE

This section evaluates noise impacts due to the implementation of the proposed project. The noise analysis in this section assesses the following: (1) existing noise conditions at the proposed project site and its vicinity and (2) short-term construction and long-term operational noise impacts associated with the proposed Malibu - La Paz project. Mitigation measures for potentially significant impacts are recommended where appropriate.

4.1 NOISE CHARACTERISTICS AND EFFECTS

4.1.1 Characteristics of Sound

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA.

4.1.2 Definitions

This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (L_{eq}).

Community Noise Equivalent Level. CNEL is an average sound level during a 24-hour day. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually five decibels higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and 10 dBA to sound levels in the night before 7:00 a.m. and after 10:00 p.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level. L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

4.1.3 Effects of Noise

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment range from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

4.1.4 Audible Noise Changes

Studies have shown that the smallest perceptible change in sound level for a person of normal hearing sensitivity is approximately three decibels. A change of at least five decibels would be noticeable and would likely evoke a community reaction. A ten decibel increase is subjectively heard as approximately a doubling in loudness and would most certainly cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately six decibels over hard surfaces and nine decibels over soft surfaces for each doubling of the distance. For example, if a noise sources produce a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on.

4.2 EXISTING ENVIRONMENTAL SETTING

4.2.1 Existing Noise Environment

The existing noise environment of the project area and its vicinity is characterized by vehicular traffic, animals (birds), and weather (wind). Vehicular traffic is the primary source of noise in the project vicinity and is the largest consistent noise source in the project vicinity.

4.2.2 Sensitive Receptors

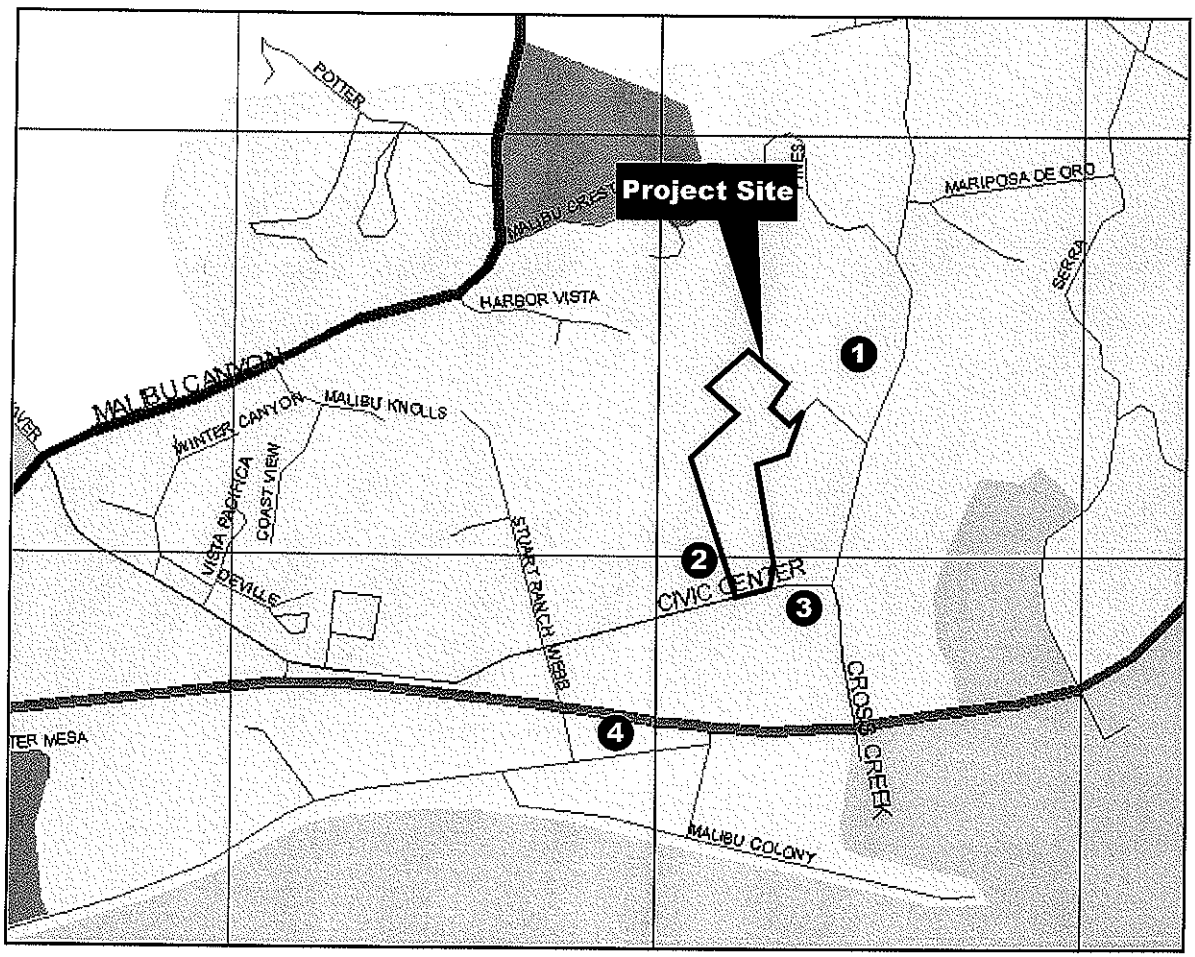
Land uses that are considered sensitive to noise impacts are referred to as "sensitive receptors." Noise sensitive receptors consist of, but are not limited to, schools, residences, libraries, hospitals, and other care facilities.

Sound measurements were taken using a Quest Q-400 Noise Dosimeter during the hours between 9:00 a.m. -12:00 p.m. on June 11, 2003 at various sensitive receptor locations within the vicinity of the project site. These readings were used to establish existing ambient conditions and provide a baseline from which to evaluate construction noise impacts. The locations of the noise monitoring positions are shown in **Figure 4-1**. These locations consist of representative noise sensitive land uses, which include nearby residences, community facilities, and schools. The existing noise levels, as recorded, are listed in **Table 4-1**. As shown, existing ambient sound levels range between 55 and 66 dBA (L_{eq}).

TABLE 4-1: EXISTING NOISE LEVELS

Noise Sensitive Receptors	Existing Sound Level (dBA, L_{eq})
1. Single-Family Residences north of project site	55
2. Malibu Public Library	66
3. Colin McEwen High School	62
4. St. John's Malibu Urgent Care	65

SOURCE: Terry A. Hayes Associates LLC



LEGEND:

1. Single-Family Residences north of project site
2. Malibu Public Library
3. Colin McEwin High School
4. St. John's Malibu Urgent Care

SOURCE: Terry A. Hayes Associates LLC

4.2.3 Vehicular Traffic

As stated earlier, vehicular traffic is the predominant noise source in the project vicinity. Using existing traffic volumes provided by the project traffic consultant and the Federal Highway Administration (FHWA) RD-77-108 noise calculation formulas, CNEL has been calculated for sensitive receptors 1 to 4 during the weekday and weekend. The CNEL is used as a baseline to measure the proposed project's operational noise impacts (**Table 4-2**).[19] The estimated noise levels represent the most conservative scenario, which assume that no shielding is provided between the traffic and the location of each sensitive receptor.

TABLE 4-2: EXISTING ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL

Noise Sensitive Receptor	Estimated dBA, CNEL	
	Weekday	Weekend
1. Single-Family Residences north of project site	60	59
2. Malibu Public Library	67	66
3. Colin McEwen High School	67	66
4. St. John's Malibu Urgent Care	74	74

SOURCE: Terry A. Hayes Associates LLC, Appendix H

4.3 SIGNIFICANCE CRITERIA

4.3.1 Construction Phase Significance Criteria

A significant construction impact would result if:

- The proposed project were to add five decibels or more to the current ambient exterior noise level at a sensitive receptor location.[20]

4.3.2 Operational Phase Significant Criteria

The proposed projects would result in a significant impact during the operational phase if:

- The proposed project causes the ambient noise level measured at the property line of the affected uses to increase by three decibels (CNEL) to or within the "normally unacceptable" or "clearly unacceptable" category (**Table 4-3**) or any five decibel or more increase in noise level.

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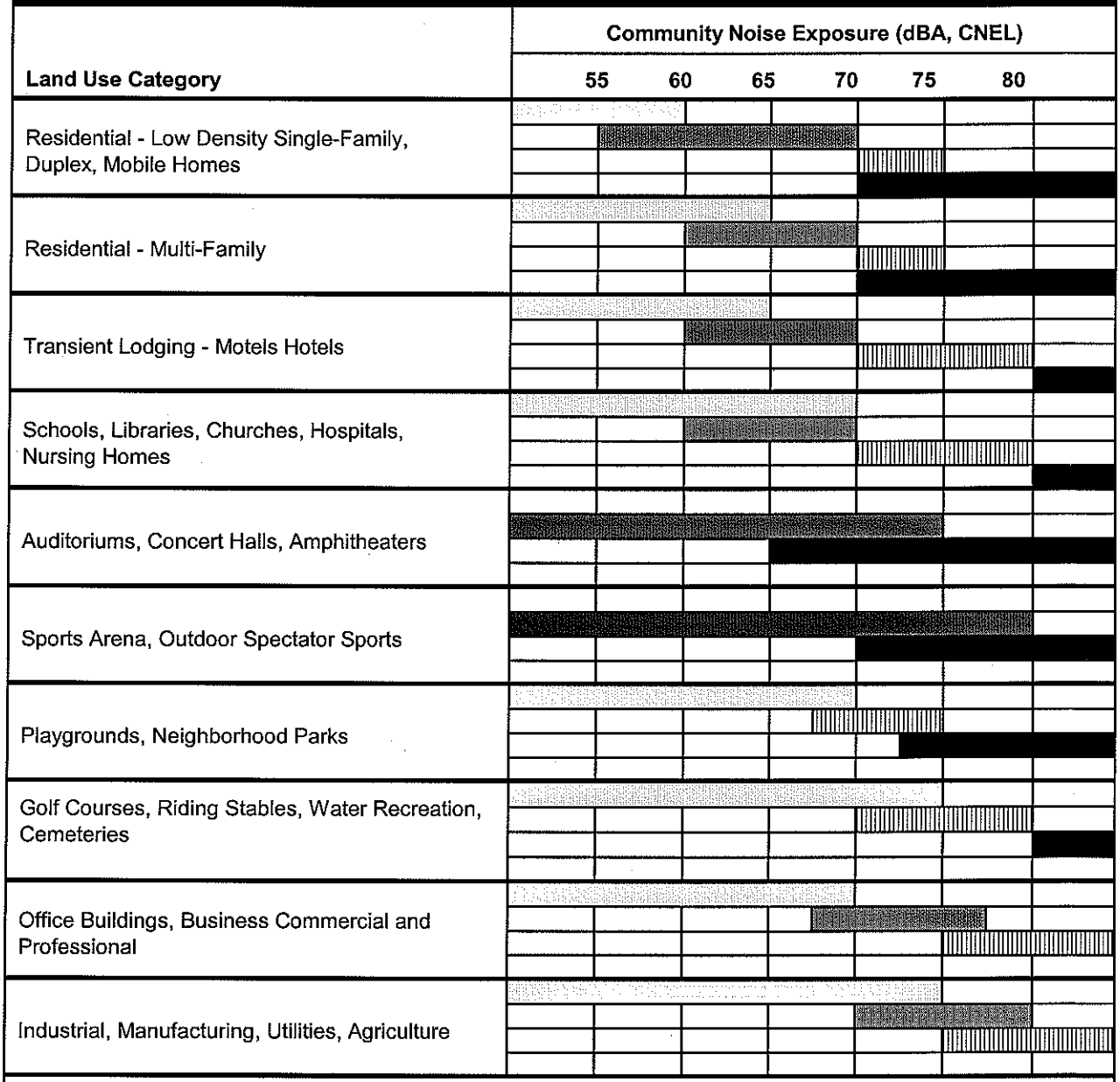
[19] The assumptions used in developing vehicular noise levels are provided in Appendix H.

[20] The City of Malibu does not have noise standards for construction. Cities, such as Los Angeles and Beverly Hills, typically use a five-decibel increase over existing ambient noise level as the significance criteria for construction. Additionally, studies have shown that a change of at least five decibels would be noticeable and owuld likely evoke a community reaction. Thus, a five-decibel or more increase over the current ambient exterior noise level is used as the significance criteria for construction.

TABLE 4-3: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditionally will normally suffice.

Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services, City of Malibu General Plan Noise Element (1995)

4.4 ENVIRONMENTAL IMPACTS

4.4.1 Construction Phase Impacts

Proposed Project. Construction of the Proposed Project would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby residents. Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities require the use of numerous noise generating equipment, such as jack hammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4-4**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 4-4: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION MACHINES

	Noise Level (dBA) /a/	
Noise Source	**50 Feet**	**100 Feet**
Jackhammer	82	76
Steamroller	83	77
Street Paver	80	74
Backhoe	83	77
Street Compressor	67	61
Front-end Loader	79	73
Street Cleaner	70	64
Idling Haul Truck	72	66
Cement Mixer	72	66

/a/ Assumes a six decibel drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of 10 and 30 feet from the noise source.
SOURCE: Cowan, James P., *Handbook of Environmental Acoustics*, 1994

Whereas **Table 4-4** shows the noise level of each equipment, the noise levels shown in **Table 4-5** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. These noise levels are based on surveys conducted by the USEPA in the early 1970's. Since 1970, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in **Table 4-5** represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.

TABLE 4-5: OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA L_{eq})	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: Environmental Protection Agency , Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971

To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise level associated with the grading phase of a typical development. The noise source is assumed to be active for forty percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (L_{eq}) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.[21] The estimated construction noise levels at sensitive receptors are shown in **Table 4-6**.

TABLE 4-6: CONSTRUCTION NOISE IMPACT

Noise Receptor	Distance (feet) /a/	Maximum Construction Sound Level (dBA) /b/	Existing Ambient (dBA, L_{eq}) /c/	New Ambient (dBA, L_{eq}) /d/	Increase	Significance Threshold	Impact?
1	100	83	55	75	20	≥ 5 dBA	**Yes**
2	80	85	66	77	11	≥ 5 dBA	**Yes**
3	120	81	62	73	11	≥ 5 dBA	**Yes**
4	1,120	62	65	65	0	≥ 5 dBA	No

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC

[21] United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

As indicated in Table 4-6, the new ambient noise level during the construction phase of the Proposed Project would be at least 20 dBA greater than the existing ambient noise level at Receptor 1 and at least 11 dBA greater than existing ambient noise levels at Receptors 2 and 3. At Receptor 4, an incremental increase of less than one decibel is anticipated during construction. The new ambient noise level at Receptors 1, 2, and 3 would exceed the significance threshold of a five decibel or more increase over the existing ambient noise level. Thus, a significant impact would occur at Receptors 1, 2, and 3.

Preferred Alternative. Similar to the Proposed Project, construction would result in temporary increases in ambient noise levels in the project area on an intermittent basis. Construction of the Preferred Alternative would occur in the same area as the Proposed Project and would require similar types of construction activities.

As shown in Table 4-6, the new ambient noise level during the construction phase of the Preferred Alternative would be at least 20 dBA greater than the existing ambient noise level at Receptor 1 and at least 11 dBA greater than existing ambient noise levels at receptors 2 and 3. The increases in ambient noise level is less-than-five decibels at Receptor 4. The new ambient noise level at Receptors 1, 2, and 3 would exceed the significance threshold of a five decibel or more increase over the existing ambient noise level. Thus, a significant impact would occur at Receptors 1, 2, and 3.

Construction Phase Mitigation Measures

Proposed Project. The following is a list of feasible control measures that shall be implemented during the construction phase.

N1 Construction contracts shall specify that all construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.

N2 All residential units located within 700 feet of the construction site shall be sent a notice regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet shall also be posted at the construction site. All notices and the signs shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints.

N3 A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would be require to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 700 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.

N4 Consistent with the City of Malibu Noise Ordinance (Section 4204 G), construction shall be limited to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and on Saturdays, and construction shall be prohibited on Sundays and holidays. Special circumstances may arise where construction activities are permitted during prohibited hours by expressed written permission of the City Manager, or if construction is necessary to preserve life or property when such necessity arises (Section 4205 D).

Preferred Alternative. See Mitigation Measures **N1** through **N4**, above.

Impacts After Mitigation

Proposed Project. Topographical and meteorological conditions affect sound wave propagation and the effectiveness of the mitigation measures. As previously indicated, machines equipped with mufflers have reduced noise levels. The sound level reduction can range from one to three decibels. With muffler utilization, the grading and finishing phases of the proposed project would have the greatest noise impacts, producing noise levels of up to 86 dBA at a reference distance of 50 feet (Table 4-5). **Table 4-7** shows the estimated construction noise level with the use of mufflers.

TABLE 4-7: CONSTRUCTION NOISE IMPACT WITH MUFFLER UTILIZATION

Noise Receptor	Distance (feet) /a/	Maximum Construction Sound Level (dBA) /b/	Existing Ambient (dBA, L_{eq}) /c/	New Ambient (dBA, L_{eq}) /d/	Increase	Significance Threshold	Impact?
1	100	80	55	72	17	≥ 5 dBA	**Yes**
2	80	82	66	75	9	≥ 5 dBA	**Yes**
3	120	78	62	71	9	≥ 5 dBA	**Yes**
4	1120	59	65	65	0	≥ 5 dBA	No

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC

With application of the prescribed mitigation measures (**N1** through **N4**), a decrease of approximately three decibels in the new ambient sound level is anticipated at Receptor 1, and a decrease of approximately two decibels in the new ambient sound level is anticipated at Receptors 2 and 3. However, a significant impact would remain at Receptors 1, 2 and 3.

Preferred Alternative. Construction impacts associated with this alternative is similar to the impacts for the Preferred Alternative since construction for this alternative would occur within the same area and would have similar construction phases as the Proposed Project. As discussed, with application of the prescribed mitigation measures (**N1** through **N4**), a decrease of approximately three decibels in the new ambient sound level is anticipated at Receptor 1, and a decrease of approximately two decibels in the new ambient sound level is anticipated at Receptors 2 and 3. However, a significant impact would remain at Receptors 1, 2 and 3.

4.4.2 Operational Phase Impacts

Proposed Project. The predominant noise source for the Proposed Project is vehicular traffic. According to the project traffic report prepared by Kaku Associates, the Proposed Project is

forecasted to generate an additional 2,863 daily weekday vehicle trips and 2,241 weekend vehicle trips.[22]

Utilizing Federal Highway Administration (FHWA) RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for sensitive receptors located near the project site (**Table 4-8**).

As indicated in **Table 4-8**, the Proposed Project would cause vehicular noise to range from 60 to 74 dBA (CNEL) during the weekday. Under "existing" and "no project" conditions, weekday noise levels are within the "conditionally acceptable" category of the Land Use Compatibility for Community Noise Environments table (Table 4-3) at Receptors 1 through 3. Under "project" conditions, noise levels would remain within the "conditionally acceptable" category at Receptor 1 but would increase to the "normally unacceptable" category at Receptors 2 and 3. At Receptor 4, noise levels would be within the "normally unacceptable" category under "existing," "no project," and "project" conditions. According to the significance threshold, a significant impact would occur if the proposed project causes ambient noise levels at the affected use to increase by three decibels to or within the "normally unacceptable" or "clearly unacceptable" category. If ambient noise levels remain within the "conditionally acceptable" category under "project" conditions, than an incremental increase of five decibels or more would be considered a significant impact. At Receptor 1, the Proposed Project would incrementally increase ambient noise levels by less than one decibel within the "conditionally acceptable" category. At Receptors 2 and 3, the Proposed Project would incrementally increase ambient noise levels by approximately one decibel to the "normally unacceptable" category. At Receptor 4, the Proposed Project would incrementally increase ambient noise levels by less than one decibel within the "normally unacceptable" category. The incremental increase of less than one and one decibel would not exceed the significance threshold. Thus, less than significant impacts are anticipated during the weekday.

During the weekend, the Proposed Project would cause vehicular noise to range from 59 to 74 dBA (CNEL). Under "existing," "no project," and "project" conditions, noise levels are within the "conditionally acceptable" category at Receptors 1 through 3. At Receptor 4, noise levels are within the "normally unacceptable" category under "existing," "no project," and "project" conditions. When compared to "no project" conditions, the Proposed Project would incrementally increase noise levels by less than one decibel at Receptors 1 and 4 and by one decibel at Receptors 2 and 3. The incremental increase of less than one decibel would not exceed the significance threshold of a three decibel or more increase to or within the "normally unacceptable" category at Receptor 4. At Receptors 1 through 3, the incremental increase of less than one and one decibel would not exceed the significance threshold of a five decibel or more increase within the "conditionally acceptable" category. Thus, less than significant impacts are anticipated during the weekend.

Preferred Alternative. Similar to the Proposed Project, the predominant noise source for the Preferred Alternative is vehicular traffic. According to the project traffic report prepared by Kaku Associates, the Preferred Alternative is forecasted to generate an additional 2,437 daily weekday vehicle trips and 2,170 weekend vehicle trips.[23]

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[22] Traffic and Circulation Study for the Malibu La Paz Project, KAKU Associates, Inc., June 2003.

[23] Traffic and Circulation Study for the Malibu La Paz Project, KAKU Associates, Inc., June 2003.

Utilizing Federal Highway Administration (FHWA) RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for sensitive receptors located near the project site (**Table 4-8**).

As indicated in **Table 4-8**, the Preferred Alternative would cause vehicular noise to range from 60 to 74 dBA (CNEL) during the weekday. Under "existing," "no project," and "project" conditions, weekday noise levels are within the "conditionally acceptable" category of the Land Use Compatibility for Community Noise Environments table (Table 4-3) at Receptors 1 through 3. At Receptor 4, noise levels would be within the "normally unacceptable" category under "existing," "no project," and "project" conditions. According to the significance threshold, a significant impact would occur if the Preferred Alternative causes ambient noise levels at the affected use to increase by three decibels to or within the "normally unacceptable" or "clearly unacceptable" category. If ambient noise levels remain within the "conditionally acceptable" category under "project" conditions, than an incremental increase of five decibels or more would be considered a significant impact. The Preferred Alternative would incrementally increase ambient noise levels by less than one decibel within the "conditionally acceptable" category at Receptors 1 through 3. At Receptor 4, the Preferred Alternative would incrementally increase ambient noise levels by less than one decibel within the "normally unacceptable" category. The incremental increase of less than one and one decibel would not exceed the significance threshold. Thus, less than significant impacts are anticipated during the weekday.

During the weekend, the Preferred Alternative would cause vehicular noise to range from 59 to 74 dBA (CNEL). Under "existing," "no project," and "project" conditions, noise levels are within the "conditionally acceptable" category at Receptors 1 through 3. At Receptor 4, noise levels are within the "normally unacceptable" category under "existing," "no project," and "project" conditions. When compared to "no project" conditions, the Preferred Alternative would incrementally increase noise levels by less than one decibel at Receptors 1 and 4 and by one decibel at Receptors 2 and 3. The incremental increase of less than one decibel at Receptor 4 would not exceed the significance threshold of a three decibel or more increase to or within the "normally unacceptable" category. At Receptors 1 through 3, the incremental increase of less than one and one decibel would not exceed the significance threshold of a five decibel or more increase within the "conditionally acceptable" category. Thus, less than significant impacts are anticipated during the weekend.

TABLE 4-8: 2004 and 2007 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL

Sensitive Receptor	Estimated dBA, CNEL					
	Weekday			Weekend		
	Existing (2004)	No Project (2007)	Project (2007)	Existing (2004)	No Project (2007)	Project (2007)
Proposed Project						
1. Single-Family Residences on Cross Creek Road	60	60	60	59	59	59
2. Malibu Public Library	67	69	70	66	68	69
3. Colin McEwen High School	67	69	70	66	68	69
4. St. John's Malibu Urgent Care	74	74	74	74	74	74
Preferred Alternative						
1. Single-Family Residences on Cross Creek Road	60	60	60	59	59	59
2. Malibu Public Library	67	69	69	66	68	69
3. Colin McEwen High School	67	69	69	66	68	69
4. St. John's Malibu Urgent Care	74	74	74	74	74	74

Assumptions:
Vehicular traffic is the predominate noise source.
The 24-hour distribution is 75 13, and 12 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively.
The vehicle distribution is approximately 87 percent, 7 percent, and 6 percent for auto, medium truck, and heavy truck, respectively.
SOURCE: Terry A. Hayes Associates LLC, Appendix H

Operational Phase Mitigation Measures

Proposed Project. No mitigation measures are required since operations of the Proposed Project would not exceed the operational phase significance criteria.

Preferred Alternative. No mitigation measures are required since operations of the Preferred Alternative would not exceed the operational phase significance criteria.

Impacts After Mitigation

Proposed Project. Noise levels associated with increased traffic volumes would incrementally increase by less than one and one decibel over "no project" conditions. The incremental increase would not exceed the significance threshold. Less-than-significant impact is anticipated.

Preferred Alternative. Noise levels associated with increased traffic volumes would incrementally increase by less than one decibel over "no project" conditions during the weekday and by one decibel over "no project" conditions during the weekend. The incremental increase would not exceed the significance threshold. Less-than-significant impact is anticipated.

4.4.3 Cumulative Impacts

Proposed Project. When calculating future traffic impacts, the traffic consultant took 14 additional projects into consideration. Thus, the future traffic results with and without the Proposed Project already account for the cumulative impacts from these other projects. Since the noise impacts are generated directly from the traffic analysis results, future "no project" and "project" noise impacts described in this report already reflect cumulative impacts.

Under "existing" and "no project" conditions, weekday noise levels are within the "conditionally acceptable" category of the Land Use Compatibility for Community Noise Environments table (Table 4-3) at Receptors 1 through 3. Under "project" conditions, noise levels would remain within the "conditionally acceptable" category at Receptor 1 but would increase to the "normally unacceptable" category at Receptors 2 and 3. At Receptor 4, noise levels would be within the "normally unacceptable" category under "existing," "no project," and "project" conditions. According to the significance threshold, a significant impact would occur if the proposed project causes ambient noise levels at the affected use to increase by three decibels to or within the "normally unacceptable" or "clearly unacceptable" category. If ambient noise levels remain within the "conditionally acceptable" category under "project" conditions, than an incremental increase of five decibels or more would be considered a significant impact. At Receptors 1, the Proposed Project would incrementally increase ambient noise levels by less than one decibel within the "conditionally acceptable" category when compared to "existing" conditions. At Receptor 4, the Proposed Project would incrementally increase ambient noise levels by less than one decibel within the "normally unacceptable" category when compared to "existing" conditions (Table 4-8). The incremental increase of less than one decibel would not exceed the significance threshold.

At Receptors 2 and 3, the Proposed Project would incrementally increase ambient noise levels by approximately three decibels to the "normally unacceptable" category during the weekday. The incremental increase of three decibels to the "normally unacceptable" category would exceed the significance threshold. Thus, the Proposed Project would significantly contribute to cumulative noise impacts during the weekday.

During the weekend, the Proposed Project would not incrementally increase ambient noise levels by three decibels to or within the "normally unacceptable" category or by five decibels within the "conditionally acceptable" category when compared to existing conditions. Thus, the Proposed Project would not significantly contribute to cumulative noise impacts during the weekend.

Preferred Alternative. Similar to the Proposed Project, the traffic consultant took 14 additional projects into consideration when calculating future traffic impacts. Thus, the future traffic results with and without the Preferred Alternative already account for the cumulative impacts from these other projects. Since the noise impacts are generated directly from the traffic analysis results, future "no project" and "project" noise impacts described in this report already reflect cumulative impacts.

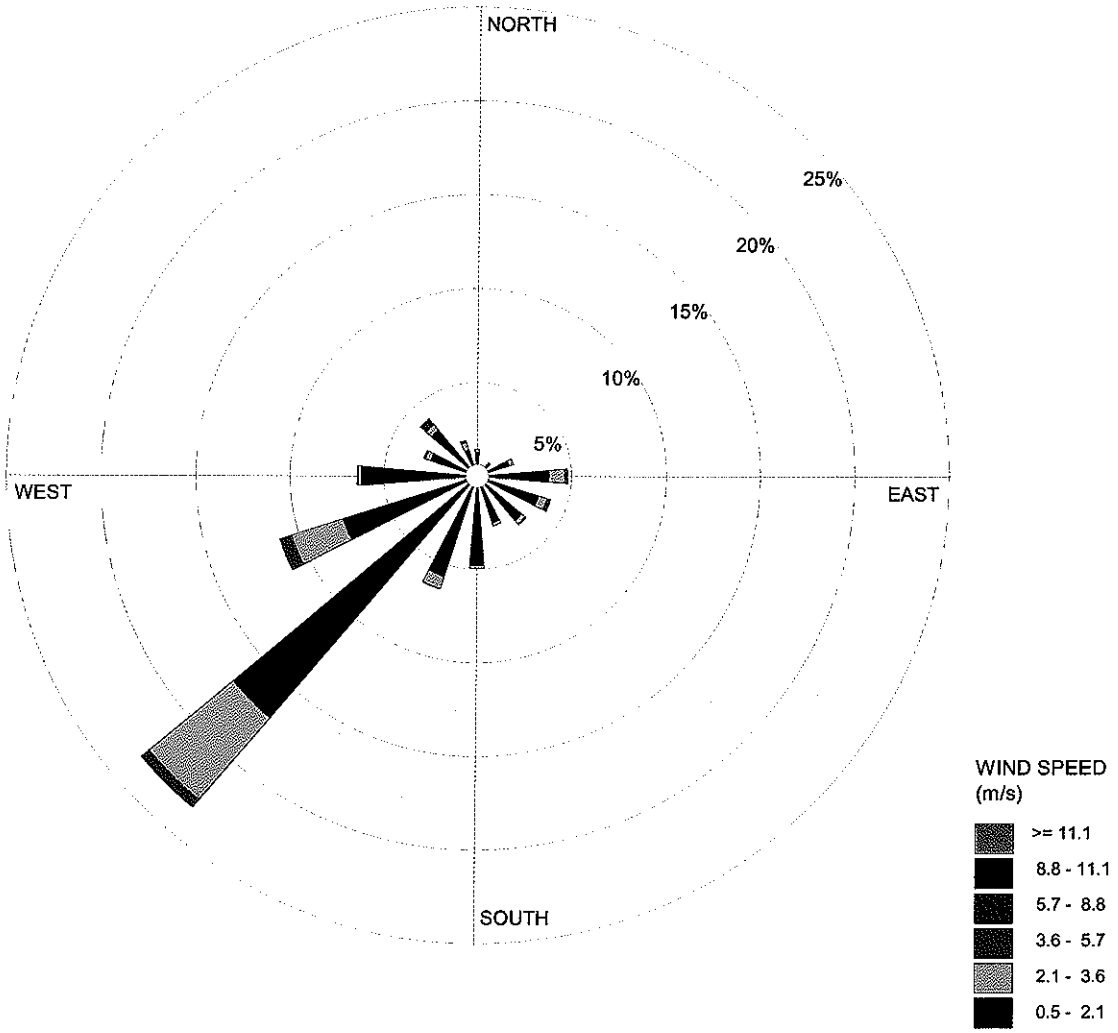
Under "existing," "no project," and "project" conditions, noise levels are within the "conditionally acceptable" category of the Land Use Compatibility for Community Noise Environments table (Table 4-3) at Receptors 1 through 3. At Receptor 4, noise levels would be within the "normally unacceptable" category under "existing," "no project," and "project" conditions. The Preferred Alternative would incrementally increase noise levels by less than one decibel over "existing" conditions at Receptors 1 and 4 and by two decibels over "existing" conditions at Receptors 2 and 3 during the weekday (Table 4-8). The incremental increase in noise level would not exceed the significance threshold of a three decibel or more increase to or within the "normally unacceptable" category or a five decibel or more increase within the "conditionally acceptable" category. Thus, the Preferred Alternative would not significantly contribute to cumulative noise impacts during the weekday.

During the weekend the Preferred Alternative would incrementally increase noise levels by less than one decibel over "existing" conditions at Receptors 1 and 4 and by three decibels over "existing" conditions at Receptors 2 and 3 during the weekday (Table 4-8). The incremental increase in noise level would not exceed the significance threshold of a three decibel or more increase to or within the "normally unacceptable" category or a five decibel or more increase within the "conditionally acceptable" category. Thus, the Preferred Alternative would not significantly contribute to cumulative noise impacts during the weekend.

APPENDIX A

Climate Information

WIND ROSE PLOT:	DISPLAY:
Station #52158 - West Los Angeles, CA	**Wind Speed** **Direction (blowing from)**



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	1981 **Jan 1 - Dec 31** **00:00 - 23:00**	MODELER:	
	CALM WINDS: **19.10%**	TOTAL COUNT: **8760 hrs.**	
	AVG. WIND SPEED: **1.53 m/s**	DATE: **4/3/2003**	PROJECT NO.:

Station ID: 52158
Year: 1981
Date Range: Jan 1 - Dec 31
Time Range: 00:00 - 23:00

Run ID: West Los Angeles

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	113	9	2	0	0	0	124
11.25-33.75	24	2	0	0	0	0	26
33.75-56.25	72	9	0	0	0	0	81
56.25-78.75	157	21	0	0	0	0	178
78.75-101.25	335	72	12	1	0	0	420
101.25-123.75	301	40	19	0	0	0	360
123.75-146.25	273	21	7	0	0	0	301
146.25-168.75	230	15	1	0	0	0	246
168.75-191.25	419	13	2	0	0	0	434
191.25-213.75	495	59	5	0	0	0	559
213.75-236.25	1486	500	47	1	0	0	2034
236.25-258.75	657	252	58	1	0	0	968
258.75-281.25	541	15	4	3	0	0	563
281.25-303.75	229	25	5	5	0	0	264
303.75-326.25	283	32	25	12	0	0	352
326.25-348.75	129	36	12	0	0	0	177
Total	5744	1121	199	23	0	0	8760

Frequency of Calm Winds: 1673
Average Wind Speed: 1.53 m/s

Station ID: 52158
Year: 1981
Date Range: Jan 1 - Dec 31
Time Range: 00:00 - 23:00

Run ID: West Los Angeles

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	Total
348.75-11.25	0.012900	0.001027	0.000228	0.000000	0.000000	0.000000	0.014155
11.25-33.75	0.002740	0.000228	0.000000	0.000000	0.000000	0.000000	0.002968
33.75-56.25	0.008219	0.001027	0.000000	0.000000	0.000000	0.000000	0.009247
56.25-78.75	0.017922	0.002397	0.000000	0.000000	0.000000	0.000000	0.020320
78.75-101.25	0.038242	0.008219	0.001370	0.000114	0.000000	0.000000	0.047945
101.25-123.75	0.034361	0.004566	0.002169	0.000000	0.000000	0.000000	0.041096
123.75-146.25	0.031164	0.002397	0.000799	0.000000	0.000000	0.000000	0.034361
146.25-168.75	0.026256	0.001712	0.000114	0.000000	0.000000	0.000000	0.028082
168.75-191.25	0.047831	0.001484	0.000228	0.000000	0.000000	0.000000	0.049543
191.25-213.75	0.056507	0.006735	0.000571	0.000000	0.000000	0.000000	0.063813
213.75-236.25	0.169635	0.057078	0.005365	0.000114	0.000000	0.000000	0.232192
236.25-258.75	0.075000	0.028767	0.006621	0.000114	0.000000	0.000000	0.110502
258.75-281.25	0.061758	0.001712	0.000457	0.000342	0.000000	0.000000	0.064269
281.25-303.75	0.026142	0.002854	0.000571	0.000571	0.000000	0.000000	0.030137
303.75-326.25	0.032306	0.003653	0.002854	0.001370	0.000000	0.000000	0.040183
326.25-348.75	0.014726	0.004110	0.001370	0.000000	0.000000	0.000000	0.020205
Total	0.655708	0.127968	0.022717	0.002626	0.000000	0.000000	0.809018

Frequency of Calm Winds: 19.10%
Average Wind Speed: 1.53 m/s

U C L A, CALIFORNIA (049152)

Period of Record Monthly Climate Summary

Period of Record : 7/ 1/1948 to 12/31/2001

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	65.5	66.5	66.4	68.5	69.2	72.2	76.7	77.9	77.8	75.1	71.0	66.7	71.1
Average Min. Temperature (F)	49.7	50.4	50.2	52.6	55.0	57.8	60.9	61.9	61.3	58.5	54.4	50.6	55.3
Average Total Precipitation (in.)	4.00	4.09	2.80	1.14	0.27	0.08	0.02	0.12	0.23	0.42	1.85	2.31	17.32
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 98.5% Min. Temp.: 98.5% Precipitation: 98.6% Snowfall: 98.6% Snow Depth: 98.6%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

U C L A, CALIFORNIA

Period of Record General Climate Summary - Precipitation

Station:(049152) U C L A

From Year=1948 To Year=2000

	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	4.00	20.11	95	0.00	72	5.75	26/1956	6	5	2	2	0.0	0.0	49
February	4.09	20.51	98	0.00	61	5.60	08/1993	6	4	2	1	0.0	0.0	49
March	2.80	9.52	83	0.00	56	4.37	08/1968	5	4	2	1	0.0	0.0	49
April	1.14	4.86	65	0.00	62	2.40	27/1960	3	2	1	0	0.0	0.0	49
May	0.27	3.70	77	0.00	52	2.32	08/1977	1	0	0	0	0.0	0.0	49
June	0.08	1.29	93	0.00	49	1.29	05/1993	1	0	0	0	0.0	0.0	49
July	0.02	0.25	69	0.00	48	0.25	11/1969	0	0	0	0	0.0	0.0	48
August	0.12	3.23	77	0.00	48	3.07	17/1977	0	0	0	0	0.0	0.0	48
September	0.23	2.81	86	0.00	48	1.73	10/1976	1	0	0	0	0.0	0.0	48
October	0.42	4.76	87	0.00	49	1.77	30/1996	2	1	0	0	0.0	0.0	48
November	1.85	11.30	65	0.00	48	5.13	29/1970	3	2	1	1	0.0	0.0	48
December	2.31	7.46	71	0.00	62	3.77	04/1974	5	3	2	1	0.0	0.0	48
Annual	17.32	41.09	83	5.26	89	5.75	19560126	34	22	11	6	0.0	0.0	49
Winter	10.40	29.54	98	1.61	64	5.75	19560126	16	12	6	4	0.0	0.0	49

Spring	4.21	13.83	83	0.00	97	4.37	19680308	10	7	3	1	0.0	0.0	49
Summer	0.21	3.34	77	0.00	52	3.07	19770817	1	0	0	0	0.0	0.0	49
Fall	2.50	11.48	65	0.00	80	5.13	19701129	6	4	2	1	0.0	0.0	48

Table updated on Jun 4, 2001
For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

U C L A, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(049152) U C L A

From Year=1948 To Year=2000

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	65.5	49.7	57.6	91	18/1971	30	04/1949	64.0	61	47.5	49	0.0	0.0	0.1	0.0
February	66.5	50.4	58.4	91	03/1995	36	18/1975	64.3	54	52.5	56	0.1	0.0	0.0	0.0
March	66.4	50.2	58.3	94	26/1988	37	02/1953	63.4	88	53.7	52	0.1	0.0	0.0	0.0
April	68.5	52.6	60.5	103	06/1989	40	08/1953	65.3	92	54.0	75	0.4	0.0	0.0	0.0
May	69.2	55.0	62.1	97	15/1970	45	26/1953	68.3	97	58.1	75	0.3	0.0	0.0	0.0
June	72.2	57.8	65.0	108	26/1990	44	11/1950	70.7	81	60.8	75	0.6	0.0	0.0	0.0
July	76.7	60.9	68.8	103	10/1959	52	27/1955	72.5	84	64.7	62	0.7	0.0	0.0	0.0
August	77.9	61.9	69.9	98	31/1967	51	16/1950	74.4	98	65.5	75	1.2	0.0	0.0	0.0
September	77.8	61.3	69.5	107	01/1955	48	30/1955	77.2	84	64.3	86	2.6	0.0	0.0	0.0
October	75.1	58.5	66.8	103	03/1958	40	29/1971	73.1	65	61.5	55	1.8	0.0	0.0	0.0
November	71.0	54.4	62.7	97	04/1976	33	17/1958	67.9	49	58.0	94	0.5	0.0	0.0	0.0
December	66.7	50.6	58.7	94	03/1958	33	22/1990	64.5	63	52.8	71	0.1	0.0	0.0	0.0
Annual	71.1	55.3	63.2	108	19900626	30	19490104	66.0	97	60.4	75	8.4	0.0	0.1	0.0
Winter	66.2	50.3	58.2	94	19581203	30	19490104	61.9	64	51.5	49	0.2	0.0	0.1	0.0

Spring	68.0	52.6	60.3	103	19890406	37	19530302	64.7	97	55.5	75	0.8	0.0	0.0	0.0
Summer	75.6	60.2	67.9	108	19900626	44	19500611	70.8	81	64.1	75	2.5	0.0	0.0	0.0
Fall	74.6	58.1	66.3	107	19550901	33	19581117	70.6	63	63.4	73	4.9	0.0	0.0	0.0

Table updated on Jun 4, 2001
For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

APPENDIX B

CARB Data

Welcome to California Air Resources Board

Highest 4 Daily Maximum Hourly Ozone Measurements

West Los Angeles-VA Hospital

Year:	2001		2002		2003	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 6	0.099	Jul 25	0.118	Oct 26	0.134
Second High:	May 11	0.086	Oct 6	0.092	Aug 14	0.116
Third High:	Mar 19	0.083	Jun 5	0.091	Oct 27	0.116
Fourth High:	Mar 20	0.083	Jul 8	0.091	Aug 15	0.112
# Days Above Nat'l Standard:		0		0		1
# Days Above State Standard:		1		1		11
Year Coverage:		100		98		98

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in parts per million.
State exceedances are shown in yellow. National exceedances are shown in orange.
National exceedances are also state exceedances.
An exceedance is not necessarily a violation.
Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.
Blanks mean that there was insufficient data available to determine the value.

Switch: 8-Hour Ozone | PM10 | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Welcome to California

Air Resources Board

Highest 4 Daily Maximum 8-Hour Ozone Averages

West Los Angeles-VA Hospital

Year:	2001		2002		2003	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 6	0.080	Jul 9	0.077	Oct 26	0.104
Second High:	May 11	0.073	Jun 6	0.074	May 20	0.084
Third High:	Aug 27	0.070	Aug 17	0.074	Sep 28	0.084
Fourth High:	Mar 31	0.064	Oct 9	0.073	Aug 15	0.083
# Days Above Nat'l Standard:		0		0		1
Year Coverage:		100		98		98

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All averages are expressed in parts per million.
National exceedances are shown in orange . An exceedance is not necessarily a violation.
Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.
Blanks mean that there was insufficient data available to determine the value.

Switch: Hourly Ozone | PM10 | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Welcome to California

Air Resources Board

Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages

West Los Angeles-VA Hospital

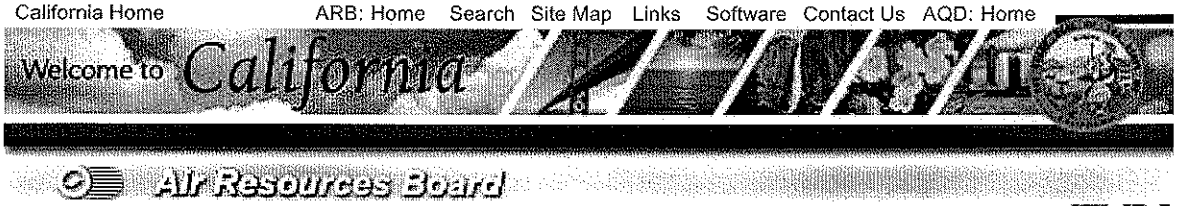
Year:	2001		2002		2003	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Jan 1	3.20	Feb 7	2.73	Oct 24	2.79
Second High:	Nov 21	2.70	Feb 6	2.44	Jan 31	2.50
Third High:	Jan 2	2.67	Feb 7	2.38	Oct 21	2.46
Fourth High:	Jan 5	2.56	Jan 8	2.38	Oct 28	2.39
California:						
First High:	Jan 1	4.00	Feb 7	2.73	Oct 24	2.79
Second High:	Nov 20	2.70	Feb 6	2.44	Jan 30	2.50
Third High:	Jan 2	2.67	Jan 7	2.38	Oct 21	2.46
Fourth High:	Jan 5	2.56	Feb 5	2.38	Oct 27	2.39
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		0		0		0
Year Coverage:		98		95		97

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All averages are expressed in parts per million.
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
An exceedance is not necessarily a violation.
Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.
Blanks mean that there was insufficient data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | PM2.5 | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page



Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

West Los Angeles-VA Hospital

Year:	2001		2002		2003	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Dec 28	0.109	Feb 7	0.113	Oct 28	0.119
Second High:	Jan 6	0.101	Oct 7	0.100	Oct 27	0.099
Third High:	Jun 6	0.100	Feb 5	0.090	Oct 26	0.091
Fourth High:	Oct 13	0.095	Jan 13	0.089	Oct 21	0.087
# Days Above State Standard:		0		0		0
Annual Average:		0.024		0.024		0.023
Year Coverage:		100		97		97

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in parts per million.
State exceedances are shown in yellow. National exceedances are shown in orange.
An exceedance is not necessarily a violation.
Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.
Blanks mean that there was insufficient data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | PM2.5 | Carbon Monoxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Welcome to California

Air Resources Board

Highest 4 Maximum 24-Hour Sulfur Dioxide Averages

Hawthorne

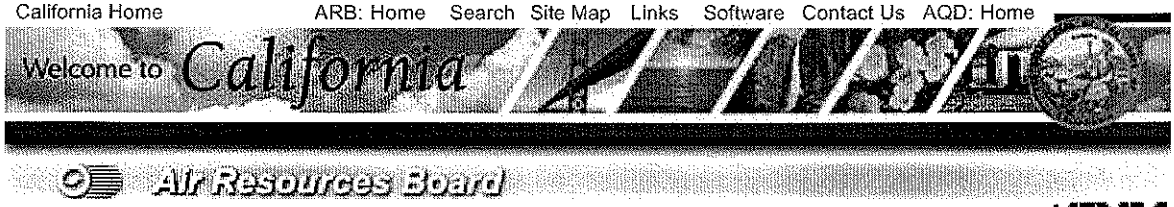
Year:	2001		2002		2003	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Dec 28	0.009	Jul 23	0.007	Dec 3	0.004
Second High:	Oct 15	0.009	Jan 7	0.007	Sep 6	0.004
Third High:	Jun 22	0.009	Jan 10	0.006	Sep 5	0.004
Fourth High:	Jan 6	0.009	Jan 5	0.005	Jul 2	0.004
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		0		0		0
Annual Average:		0.004		0.001		0.001
Year Coverage:		100		90		98

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All averages are expressed in parts per million.
State exceedances are shown in **yellow**. National exceedances are shown in **orange**.
National exceedances are also state exceedances.
An exceedance is not necessarily a violation.
Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.
Blanks mean that there was insufficient data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page



Highest 4 Daily PM10 Measurements

Hawthorne

Year:	2001		2002		2003	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Jan 1	75.0	Sep 5	121.0	Oct 24	58.0
Second High:	Oct 25	74.0	Jul 19	97.0	Feb 2	57.0
Third High:	May 1	70.0	Feb 13	58.0	Oct 6	55.0
Fourth High:	Jan 19	62.0	Jun 19	58.0	Mar 28	50.0
California:						
First High:	Jan 1	75.0	Sep 5	121.0	Oct 24	58.0
Second High:	Oct 25	74.0	Jul 19	97.0	Feb 2	57.0
Third High:	May 1	70.0	Feb 13	58.0	Oct 6	55.0
Fourth High:	Jan 19	62.0	Jun 19	58.0	Mar 28	50.0
Measured:						
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		8		12		3
Estimated:						
3-Yr Avg # Days Above Nat'l Std:		0.0		0.0		0.0
# Days Above Nat'l Standard:		0.0		0.0		0.0
# Days Above State Standard:				71.0		18.3
National 3-Year Average:		36		37		35
National Annual Average:		37.1		37.3		29.8
State 3-Yr Maximum Average:		36		37		37
State Annual Average:				37.2		29.7
Year Coverage:		96		100		100

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in micrograms per cubic meter.
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
An exceedance is not necessarily a violation.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.
State statistics for 1998 and later are based on *local* conditions (except for sites in the South Coast Air Basin, where statistics for all years are based on *standard* conditions). National statistics are based on *standard* conditions).
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.
3-Year statistics represent the listed year and the 2 years before the listed year.
Year Coverage indicates how complete monitoring was during the time of the year when concentrations are highest. 0 means there was no coverage; 100 means there was complete coverage.
Blanks mean that there was insufficient data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

APPENDIX C

EMFAC and CAL3QHC Printouts

Title : Los Angeles County Subarea 2004 Winter Default Title
Version : Emfac2002 V2.2 Sept 23 2002
Run Date : 01/03/05 16:19:12
Scen Year: 2004 -- Model Years: 1965 to 2004
Season : Winter
Area : Los Angeles (SC)
I/M Stat : I and M program in effect
Emissions: Tons Per Day

	Light Duty Passenger Cars				Light Duty Trucks				Medium Duty Trucks				Heavy Duty Trucks						
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Gasoline Trucks: Non-cat	Gasoline Trucks: Cat	Gasoline Trucks: Total	Diesel Trucks	Total HD Trucks	Urban Buses	Motor-cycles	All Vehicles
Vehicles	85942.	3301940.	17726.	3405610.	43380.	1417820.	16542.	1477750.	10083.	393807.	22635.	426525.	10999.	58299.	69298.	85569.	154867.	8032.	66994.	5539780.
VMT/1000	1533.	114674.	455.	116661.	1180.	49643.	579.	51402.	233.	14371.	1053.	15657.	115.	1399.	1514.	7375.	8889.	874.	453.	193937.
Trips	374180.	20796700.	102238.	21273100.	194278.	8962720.	104083.	9261080.	113426.	3810050.	221587.	4145060.	169466.	850248.	1019710.	1319210.	2338920.	32127.	133975.	37184300.
Reactive Organic Gas Emissions																				
Run Exh	9.51	19.13	0.14	28.78	7.27	10.04	0.08	17.39	1.50	3.78	0.21	5.50	0.67	1.75	2.42	4.36	6.79	1.81	1.76	62.03
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.08	0.01	0.04	0.04	0.36	0.40	0.00	0.00	0.48
Start Ex	2.08	21.97	0.00	24.05	1.03	9.48	0.00	10.50	0.80	4.53	0.00	5.32	2.15	2.20	4.35	0.00	4.35	0.08	0.40	44.70
Total Ex	11.59	41.10	0.14	52.83	8.30	19.51	0.08	27.89	2.31	8.38	0.22	10.90	2.83	3.98	6.81	4.72	11.54	1.89	2.16	107.20
Diurnal	0.64	5.00	0.00	5.63	0.31	1.98	0.00	2.29	0.04	0.52	0.00	0.56	0.01	0.02	0.03	0.00	0.03	0.00	0.19	8.71
Hot Soak	1.64	6.04	0.00	7.68	0.86	2.48	0.00	3.34	0.19	0.89	0.00	1.09	0.12	0.14	0.26	0.00	0.26	0.01	0.17	12.55
Running	8.02	26.16	0.00	34.18	2.38	14.33	0.00	16.71	0.84	5.98	0.00	6.81	0.86	2.00	2.87	0.00	2.87	0.06	0.86	61.49
Resting	0.29	1.74	0.00	2.03	0.15	0.71	0.00	0.85	0.02	0.19	0.00	0.21	0.00	0.00	0.01	0.00	0.01	0.00	0.07	3.17
Total	22.17	80.04	0.14	102.36	11.99	39.02	0.08	51.09	3.39	15.96	0.22	19.57	3.82	6.16	9.98	4.72	14.70	1.96	3.45	193.13
Carbon Monoxide Emissions																				
Run Exh	117.94	534.42	0.41	652.77	89.97	324.22	0.39	414.59	25.14	88.15	0.76	114.05	20.63	37.22	57.85	20.94	78.78	14.96	23.11	1298.26
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.43	0.01	0.46	0.05	0.23	0.27	2.14	2.41	0.00	0.00	2.87
Start Ex	12.21	232.86	0.00	245.07	6.30	115.71	0.00	122.01	5.39	51.68	0.00	57.07	19.70	35.40	55.10	0.00	55.10	1.06	1.40	481.70
Total Ex	130.15	767.28	0.41	897.84	96.27	439.93	0.39	536.59	30.55	140.26	0.77	171.59	40.37	72.84	113.22	23.07	136.29	16.02	24.51	1782.83
Oxides of Nitrogen Emissions																				
Run Exh	8.18	67.29	0.74	76.20	6.10	47.52	0.90	54.52	1.54	19.29	6.23	27.06	0.76	10.74	11.50	143.64	155.14	15.48	0.72	329.13
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	6.56	6.56	0.00	0.00	6.60
Start Ex	0.58	13.18	0.00	13.76	0.29	7.79	0.00	8.08	0.13	5.09	0.00	5.22	0.33	4.36	4.69	0.00	4.69	0.09	0.05	31.90
Total Ex	8.76	80.47	0.74	89.97	6.39	55.32	0.90	62.60	1.68	24.38	6.27	32.33	1.09	15.10	16.19	150.20	166.39	15.57	0.77	367.63
Carbon Dioxide Emissions (000)																				
Run Exh	0.84	46.89	0.19	47.92	0.65	24.41	0.22	25.28	0.15	9.75	0.54	10.44	0.07	0.90	0.97	15.94	16.91	1.87	0.06	102.47
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.01	0.01	0.33	0.34	0.00	0.00	0.36
Start Ex	0.08	1.74	0.00	1.82	0.04	0.89	0.00	0.94	0.03	0.37	0.00	0.39	0.04	0.03	0.07	0.00	0.07	0.00	0.01	3.23
Total Ex	0.92	48.63	0.19	49.73	0.69	25.30	0.22	26.21	0.17	10.13	0.54	10.85	0.11	0.94	1.05	16.27	17.32	1.87	0.07	106.06
PM10 Emissions																				
Run Exh	0.05	1.44	0.09	1.58	0.04	0.96	0.04	1.04	0.01	0.31	0.06	0.38	0.00	0.01	0.01	2.52	2.54	0.23	0.02	5.79
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.18
Start Ex	0.01	0.16	0.00	0.16	0.00	0.09	0.00	0.10	0.00	0.03	0.00	0.04	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.31
Total Ex	0.06	1.60	0.09	1.74	0.04	1.05	0.04	1.14	0.01	0.34	0.06	0.41	0.00	0.02	0.02	2.70	2.72	0.23	0.02	6.27
TireWear	0.01	1.01	0.00	1.03	0.01	0.44	0.01	0.45	0.00	0.14	0.01	0.15	0.00	0.02	0.02	0.23	0.25	0.01	0.00	1.90
BrakeWr	0.02	1.59	0.01	1.61	0.02	0.69	0.01	0.71	0.00	0.20	0.01	0.22	0.00	0.02	0.02	0.10	0.12	0.01	0.01	2.68
Total	0.09	4.19	0.10	4.38	0.07	2.18	0.06	2.31	0.01	0.68	0.09	0.78	0.01	0.05	0.06	3.03	3.09	0.25	0.03	10.85
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.01	0.48	0.02	0.51	0.01	0.25	0.02	0.28	0.00	0.10	0.04	0.15	0.00	0.01	0.01	1.35	1.36	0.13	0.00	2.42
Fuel Consumption (000 gallons)																				
Gasoline	118.90	5116.61	0.00	5235.52	88.78	2667.89	0.00	2756.67	23.26	1063.06	0.00	1086.32	19.00	109.37	128.36	0.00	128.36	34.02	11.34	9252.23
Diesel	0.00	0.00	16.65	16.65	0.00	0.00	20.06	20.06	0.00	0.00	48.94	48.94	0.00	0.00	0.00	1464.25	1464.25	140.92	0.00	1690.83

Title : Los Angeles County Subarea 2007 Winter Default Title
Version : Emfac2002 V2.2 Sept 23 2002
Run Date : 01/03/05 16:19:12
Scen Year: 2007 -- Model Years: 1965 to 2007
Season : Winter
Area : Los Angeles (SC)
I/M Stat : I and M program in effect
Emissions: Tons Per Day

	Light Duty Passenger Cars				Light Duty Trucks				Medium Duty Trucks				Heavy Duty Trucks						
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Gasoline Non-cat	Gasoline Cat	Gasoline Total	Diesel Trucks	Total HD Trucks	Urban Buses	Motor-cycles	All Vehicles
Vehicles	58944.	3420470.	13031.	3492440.	31061.	1467140.	14253.	1512450.	7256.	406323.	23066.	436644.	7420.	60796.	68216.	90370.	158585.	8223.	68528.	5676880.
VMT/1000	985.	117834.	315.	119134.	830.	50702.	480.	52013.	169.	14550.	1044.	15763.	75.	1333.	1408.	7780.	9188.	895.	487.	197479.
Trips	245420.	21460400.	72378.	21778200.	132414.	9213400.	88633.	9434450.	71894.	3905980.	231108.	4208980.	119718.	824176.	943894.	1390750.	2334640.	32891.	137043.	37926200.
Reactive Organic Gas Emissions																				
Run Exh	6.39	13.20	0.10	19.69	5.39	7.76	0.06	13.21	1.18	2.96	0.22	4.35	0.43	1.36	1.79	3.91	5.69	1.71	1.86	46.52
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.08	0.01	0.04	0.04	0.38	0.42	0.00	0.00	0.49
Start Ex	1.41	17.25	0.00	18.65	0.72	7.87	0.00	8.59	0.50	3.95	0.00	4.45	1.47	1.96	3.43	0.00	3.43	0.08	0.38	35.59
Total Ex	7.80	30.45	0.10	38.35	6.11	15.63	0.06	21.81	1.68	6.98	0.22	8.88	1.91	3.35	5.26	4.28	9.55	1.79	2.24	82.60
Diurnal	0.45	4.38	0.00	4.82	0.23	1.85	0.00	2.08	0.03	0.50	0.00	0.53	0.01	0.02	0.02	0.00	0.02	0.00	0.17	7.62
Hot Soak	1.07	5.35	0.00	6.42	0.59	2.32	0.00	2.91	0.12	0.81	0.00	0.93	0.08	0.13	0.21	0.00	0.21	0.01	0.11	10.60
Running	5.20	20.64	0.00	25.84	1.57	14.40	0.00	15.97	0.51	5.06	0.00	6.57	0.61	2.33	2.95	0.00	2.95	0.06	0.58	51.96
Resting	0.20	1.66	0.00	1.86	0.11	0.72	0.00	0.83	0.01	0.19	0.00	0.21	0.00	0.00	0.01	0.00	0.01	0.00	0.06	2.96
Total	14.72	62.47	0.10	77.29	8.60	34.92	0.06	43.59	2.36	14.54	0.22	17.12	2.61	5.84	8.45	4.28	12.73	1.86	3.15	155.75
Carbon Monoxide Emissions																				
Run Exh	76.02	417.42	0.28	493.72	63.49	268.46	0.32	332.27	18.75	74.11	0.80	93.67	13.20	28.77	41.97	18.75	60.71	13.87	23.84	1018.08
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.43	0.01	0.46	0.03	0.22	0.26	2.24	2.50	0.00	0.00	2.95
Start Ex	8.06	187.62	0.00	195.68	4.33	98.06	0.00	102.39	3.41	44.19	0.00	47.60	13.58	31.59	45.17	0.00	45.17	1.03	1.42	393.29
Total Ex	84.08	605.04	0.28	689.40	67.82	366.51	0.32	434.65	22.17	118.74	0.82	141.73	26.81	60.58	87.39	20.99	108.38	14.90	25.26	1414.33
Oxides of Nitrogen Emissions																				
Run Exh	5.26	49.54	0.51	55.30	4.28	37.65	0.75	42.67	1.16	15.92	5.81	22.89	0.48	8.25	8.73	124.35	133.08	14.33	0.79	269.06
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.00	0.00	0.00	6.87	6.88	0.00	0.00	6.92
Start Ex	0.38	11.31	0.00	11.69	0.20	6.98	0.00	7.18	0.09	5.27	0.00	5.36	0.22	3.98	4.20	0.00	4.20	0.10	0.05	28.58
Total Ex	5.64	60.84	0.51	66.99	4.48	44.63	0.75	49.85	1.24	21.20	5.85	28.30	0.70	12.24	12.94	131.22	144.16	14.43	0.84	304.56
Carbon Dioxide Emissions (000)																				
Run Exh	0.54	47.51	0.13	48.17	0.46	24.98	0.18	25.62	0.11	9.85	0.54	10.50	0.05	0.86	0.91	16.89	17.80	1.86	0.06	104.00
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.01	0.01	0.35	0.36	0.00	0.00	0.37
Start Ex	0.05	1.76	0.00	1.81	0.03	0.92	0.00	0.95	0.02	0.38	0.00	0.39	0.03	0.03	0.06	0.00	0.06	0.00	0.01	3.22
Total Ex	0.59	49.27	0.13	49.99	0.48	25.89	0.18	26.56	0.12	10.24	0.54	10.91	0.08	0.90	0.97	17.24	18.21	1.86	0.07	107.60
PM10 Emissions																				
Run Exh	0.04	1.51	0.05	1.60	0.03	1.09	0.03	1.15	0.01	0.36	0.05	0.41	0.00	0.01	0.01	2.10	2.11	0.21	0.02	5.51
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.16
Start Ex	0.00	0.16	0.00	0.17	0.00	0.11	0.00	0.11	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32
Total Ex	0.04	1.67	0.05	1.77	0.03	1.19	0.03	1.26	0.01	0.39	0.05	0.45	0.00	0.01	0.02	2.25	2.27	0.21	0.03	5.98
TireWear	0.01	1.04	0.00	1.05	0.01	0.45	0.00	0.46	0.00	0.14	0.01	0.15	0.00	0.02	0.02	0.25	0.27	0.01	0.00	1.94
BrakeWr	0.01	1.63	0.00	1.65	0.01	0.70	0.01	0.72	0.00	0.20	0.01	0.22	0.00	0.02	0.02	0.11	0.13	0.01	0.01	2.73
Total	0.06	4.34	0.06	4.47	0.05	2.34	0.04	2.44	0.01	0.73	0.08	0.83	0.00	0.05	0.05	2.61	2.66	0.23	0.03	10.65
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.01	0.48	0.00	0.49	0.01	0.25	0.00	0.26	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.16	0.18	0.02	0.00	1.06
Fuel Consumption (000 gallons)																				
Gasoline	76.73	5152.14	0.00	5228.87	62.50	2715.41	0.00	2777.91	16.77	1069.95	0.00	1086.72	12.69	102.91	115.60	0.00	115.60	35.93	12.14	9257.16
Diesel	0.00	0.00	11.47	11.47	0.00	0.00	16.60	16.60	0.00	0.00	48.90	48.90	0.00	0.00	0.00	1551.51	1551.51	137.95	0.00	1766.43

Title : Los Angeles County Subarea 2007 Winter Default Title
Version : Emfac2002 V2.2 Sept 23 2002
Run Date : 01/03/05 16:19:12
Scen Year: 2007 -- Model Years: 1965 to 2007
Season : Winter
Area : Los Angeles (SC)

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Year:2007 -- Model Years 1965 to 2007 Inclusive -- Winter
Emfac2002 Emission Factors: V2.2 Sept 23 2002

Los Angeles (SC) Los Angeles (SC) Los Angeles (SC)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.862	1.167	1.307	2.521	6.287	5.907	1.101
25	0.192	0.282	0.311	0.843	1.646	2.953	0.272

Pollutant Name: Carbon Monoxide Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	8.636	13.601	13.257	26.234	50.376	45.514	11.511
25	4.617	6.623	6.024	7.347	13.265	28.138	5.510

Pollutant Name: Oxides of Nitrogen Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.817	1.381	2.156	17.275	26.340	1.184	2.004
25	0.497	0.826	1.312	10.527	13.328	1.392	1.205

Pollutant Name: Carbon Dioxide Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1100.315	1331.622	1858.594	2052.873	2666.685	226.459	1277.573
25	397.444	482.291	657.189	1772.685	1857.422	132.943	515.189

Pollutant Name: Sulfur Dioxide Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.011	0.013	0.018	0.020	0.026	0.003	0.012
25	0.004	0.005	0.006	0.017	0.018	0.002	0.005

Pollutant Name: PM10 Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.070	0.108	0.121	0.693	0.620	0.067	0.117
25	0.015	0.024	0.029	0.299	0.208	0.034	0.034

Pollutant Name: PM10 - Tire Wear Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.008	0.008	0.009	0.026	0.010	0.004	0.009
25	0.008	0.008	0.009	0.026	0.010	0.004	0.009

Pollutant Name: PM10 - Break Wear Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.013	0.013	0.013	0.013	0.013	0.013	0.013
25	0.013	0.013	0.013	0.013	0.013	0.013	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	7.922	6.481	4.513	3.256	3.279	26.489	7.238
25	21.870	17.896	12.985	11.972	12.067	45.311	19.979

Pollutant Name: Diesel - mi/gal Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	27.488	28.944	22.271	5.263	3.615	0.000	8.754
25	27.488	28.944	22.271	5.263	3.615	0.000	8.754

Title : Los Angeles County Subarea 2004 Winter Default Title
Version : Emfac2002 V2.2 Sept 23 2002
Run Date : 01/03/05 16:19:12
Scen Year: 2004 -- Model Years: 1965 to 2004
Season : Winter
Area : Los Angeles (SC)

****

Year:2004 -- Model Years 1965 to 2004 Inclusive -- Winter
Emfac2002 Emission Factors: V2.2 Sept 23 2002

Los Angeles (SC) Los Angeles (SC) Los Angeles (SC)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1.201	1.507	1.650	3.230	6.797	6.004	1.450
25	0.273	0.370	0.398	1.048	1.783	3.004	0.358

Pollutant Name: Carbon Monoxide Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	11.350	17.225	16.853	35.417	55.693	47.213	14.766
25	5.890	8.185	7.333	9.881	14.663	29.184	6.899

Pollutant Name: Oxides of Nitrogen Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1.093	1.754	2.557	20.715	29.283	1.165	2.426
25	0.660	1.046	1.565	12.688	14.724	1.371	1.459

Pollutant Name: Carbon Dioxide Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1114.406	1328.338	1863.814	2054.501	2693.863	220.613	1281.165
25	402.796	481.534	658.561	1743.049	1916.680	129.524	512.955

Pollutant Name: Sulfur Dioxide Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.011	0.013	0.021	0.139	0.146	0.003	0.019
25	0.004	0.005	0.009	0.136	0.138	0.002	0.011

Pollutant Name: PM10 Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.065	0.095	0.107	0.864	0.703	0.067	0.116
25	0.015	0.022	0.027	0.373	0.237	0.034	0.035

Pollutant Name: PM10 - Tire Wear Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.008	0.008	0.009	0.026	0.010	0.004	0.009
25	0.008	0.008	0.009	0.026	0.010	0.004	0.009

Pollutant Name: PM10 - Break Wear Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.013	0.013	0.013	0.013	0.013	0.013	0.013
25	0.013	0.013	0.013	0.013	0.013	0.013	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	7.782	6.455	4.478	3.187	3.247	26.680	7.148
25	21.470	17.814	12.895	11.725	11.954	45.625	19.726

Pollutant Name: Diesel - mi/gal Temperature: 55F Relative Humidity: 40%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	27.334	28.875	22.538	5.290	3.565	0.000	9.404
25	27.334	28.875	22.538	5.290	3.565	0.000	9.404

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 11: 8:46

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	506.0	.0	506.0	500.0	500.	360.	AG	71.	6.9	.0	32.0		
2. nbd	506.0	500.0	506.0	1000.0	500.	360.	AG	863.	6.9	.0	32.0		
3. nbq	506.0	452.0	506.0	433.8	18.	180.	AG	93.	100.0	.0	12.0	.33	.9
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	651.	6.9	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	57.	6.9	.0	32.0		
6. sbq	482.0	548.0	482.0	715.9	168.	360.	AG	279.	100.0	.0	36.0	1.02	8.5
7. eba	.0	476.0	500.0	476.0	500.	90.	AG	1583.	6.9	.0	68.0		
8. ebq	464.0	476.0	442.4	476.0	22.	270.	AG	79.	100.0	.0	48.0	.33	1.1
9. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	1683.	6.9	.0	68.0		
10. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1428.	6.9	.0	44.0		
11. wbq	512.0	524.0	535.0	524.0	23.	90.	AG	79.	100.0	.0	48.0	.35	1.2

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 11: 8:46

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	47	3.0	71	1600	44.30	3	3
6. sbq	60	47	3.0	651	1600	44.30	3	3
8. ebq	60	10	3.0	1583	1600	44.30	3	3
11. wbq	60	10	3.0	1683	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	532.0	568.0	5.0
3. SW	444.0	432.0	5.0
4. SE	532.0	432.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Existing, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.5	5.6	6.4	6.1
10.	6.3	5.3	7.4	5.5
20.	6.9	5.3	6.8	5.6
30.	6.8	5.3	6.3	5.6
40.	6.7	5.3	6.0	5.6
50.	6.5	5.3	5.8	5.6
60.	6.4	5.3	5.8	5.6
70.	6.3	5.3	5.9	5.7
80.	6.3	5.3	5.8	5.5
90.	6.6	5.6	5.4	5.3
100.	7.0	6.0	5.3	5.3
110.	6.7	5.9	5.3	5.3
120.	6.4	5.8	5.3	5.3
130.	6.2	5.7	5.3	5.3
140.	6.1	5.7	5.3	5.3
150.	5.8	5.6	5.3	5.3
160.	5.9	5.6	5.3	5.3
170.	5.9	5.7	5.3	5.3
180.	5.9	5.7	5.3	5.3
190.	5.8	6.0	5.3	5.3
200.	5.8	6.0	5.3	5.3
210.	5.8	6.2	5.3	5.3

220.	*	5.8	6.3	5.3	5.3
230.	*	5.9	6.3	5.3	5.3
240.	*	6.0	6.6	5.3	5.3
250.	*	6.2	7.0	5.3	5.3
260.	*	6.0	7.1	5.3	5.3
270.	*	5.5	6.5	5.6	5.7
280.	*	5.3	6.3	6.2	6.4
290.	*	5.3	6.3	6.2	6.4
300.	*	5.3	6.4	6.1	6.3
310.	*	5.3	6.4	5.9	6.0
320.	*	5.3	6.6	5.9	5.8
330.	*	5.3	6.7	5.8	6.0
340.	*	5.3	6.6	5.8	6.6
350.	*	5.3	6.1	5.8	6.9
360.	*	5.5	5.6	6.4	6.1
MAX	*	7.0	7.1	7.4	6.9
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 7.43 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 7.43 X 0.6 = 4.46 PPM

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 11:10:16

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	506.0	.0	506.0	500.0	500.	360.	AG	78.	5.5	.0	32.0		
2. nbd	506.0	500.0	506.0	1000.0	500.	360.	AG	1002.	5.5	.0	32.0		
3. nbq	506.0	452.0	506.0	432.0	20.	180.	AG	73.	100.0	.0	12.0	.37	1.0
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	785.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	65.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1175.1	627.	360.	AG	218.	100.0	.0	36.0	1.23	31.9
7. eba	.0	476.0	500.0	476.0	500.	90.	AG	1938.	5.5	.0	68.0		
8. ebq	464.0	476.0	437.5	476.0	26.	270.	AG	62.	100.0	.0	48.0	.40	1.3
9. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2139.	5.5	.0	68.0		
10. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1870.	5.5	.0	44.0		
11. wbq	512.0	524.0	541.2	524.0	29.	90.	AG	62.	100.0	.0	48.0	.45	1.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 11:10:16

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	47	3.0	78	1600	34.53	3	3
6. sbq	60	47	3.0	785	1600	34.53	3	3
8. ebq	60	10	3.0	1938	1600	34.53	3	3
11. wbq	60	10	3.0	2139	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	532.0	568.0	5.0
3. SW	444.0	432.0	5.0
4. SE	532.0	432.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, No Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.0	5.0	5.8	5.4
10.	6.2	4.3	6.7	4.5
20.	5.8	4.3	5.8	4.6
30.	5.6	4.3	5.3	4.6
40.	5.5	4.3	5.0	4.6
50.	5.2	4.3	4.8	4.6
60.	5.2	4.3	4.8	4.6
70.	5.1	4.3	4.9	4.7
80.	5.1	4.3	4.8	4.5
90.	5.4	4.6	4.4	4.3
100.	5.8	5.0	4.3	4.3
110.	5.6	4.9	4.3	4.3
120.	5.3	4.8	4.3	4.3
130.	5.0	4.7	4.3	4.3
140.	5.0	4.7	4.3	4.3
150.	4.8	4.6	4.3	4.3
160.	4.9	4.6	4.3	4.3
170.	4.9	4.7	4.3	4.3
180.	4.9	4.8	4.3	4.3
190.	4.8	4.9	4.3	4.3
200.	4.8	5.0	4.3	4.3
210.	4.8	5.2	4.3	4.3

220.	*	4.8	5.3	4.3	4.3
230.	*	5.0	5.3	4.3	4.3
240.	*	5.0	5.5	4.3	4.3
250.	*	5.1	5.9	4.3	4.3
260.	*	5.0	6.0	4.3	4.3
270.	*	4.5	5.3	4.6	4.7
280.	*	4.3	5.1	5.1	5.4
290.	*	4.3	5.2	5.2	5.4
300.	*	4.3	5.2	5.1	5.3
310.	*	4.3	5.2	5.0	5.0
320.	*	4.3	5.3	4.8	4.8
330.	*	4.3	5.6	4.8	5.0
340.	*	4.3	5.8	4.8	5.5
350.	*	4.3	6.0	4.9	6.3
360.	*	5.0	5.0	5.8	5.4
MAX	*	6.2	6.0	6.7	6.3
DEGR.	*	10	260	10	350

THE HIGHEST CONCENTRATION OF 6.74 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.74 X 0.6 = 4.04 PPM

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Preferred Project,2007

DATE : 1/ 6/ 5
TIME : 11:11:16

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	506.0	.0	506.0	500.0	500.	360.	AG	78.	5.5	.0	32.0		
2. nbd	506.0	500.0	506.0	1000.0	500.	360.	AG	1002.	5.5	.0	32.0		
3. nbq	506.0	452.0	506.0	432.0	20.	180.	AG	73.	100.0	.0	12.0	.37	1.0
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	785.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	65.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1175.1	627.	360.	AG	218.	100.0	.0	36.0	1.23	31.9
7. eba	.0	476.0	500.0	476.0	500.	90.	AG	1971.	5.5	.0	68.0		
8. ebq	464.0	476.0	437.1	476.0	27.	270.	AG	62.	100.0	.0	48.0	.41	1.4
9. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2215.	5.5	.0	68.0		
10. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1946.	5.5	.0	44.0		
11. wbq	512.0	524.0	542.2	524.0	30.	90.	AG	62.	100.0	.0	48.0	.46	1.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Preferred Project,2007

DATE : 1/ 6/ 5
TIME : 11:11:16

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	47	3.0	78	1600	34.53	3	3
6. sbq	60	47	3.0	785	1600	34.53	3	3
8. ebq	60	10	3.0	1971	1600	34.53	3	3
11. wbq	60	10	3.0	2215	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	532.0	568.0	5.0
3. SW	444.0	432.0	5.0
4. SE	532.0	432.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Preferred Project,2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.0	5.0	5.8	5.4
10.	6.2	4.3	6.7	4.5
20.	5.8	4.3	5.8	4.6
30.	5.6	4.3	5.3	4.6
40.	5.5	4.3	5.0	4.6
50.	5.2	4.3	4.8	4.6
60.	5.2	4.3	4.9	4.7
70.	5.1	4.3	4.9	4.7
80.	5.1	4.3	4.8	4.5
90.	5.5	4.6	4.4	4.3
100.	5.8	5.1	4.3	4.3
110.	5.6	5.0	4.3	4.3
120.	5.3	4.8	4.3	4.3
130.	5.0	4.7	4.3	4.3
140.	5.0	4.7	4.3	4.3
150.	4.8	4.7	4.3	4.3
160.	4.9	4.6	4.3	4.3
170.	4.9	4.7	4.3	4.3
180.	4.9	4.9	4.3	4.3
190.	4.8	4.9	4.3	4.3
200.	4.8	5.0	4.3	4.3
210.	4.8	5.3	4.3	4.3

220.	*	4.8	5.3	4.3	4.3
230.	*	5.0	5.3	4.3	4.3
240.	*	5.0	5.5	4.3	4.3
250.	*	5.1	5.9	4.3	4.3
260.	*	5.1	6.0	4.3	4.3
270.	*	4.5	5.3	4.6	4.7
280.	*	4.3	5.1	5.2	5.4
290.	*	4.3	5.2	5.2	5.4
300.	*	4.3	5.2	5.1	5.3
310.	*	4.3	5.2	5.0	5.0
320.	*	4.3	5.3	4.9	4.8
330.	*	4.3	5.6	4.8	5.0
340.	*	4.3	5.8	4.8	5.5
350.	*	4.3	6.0	4.9	6.3
360.	*	5.0	5.0	5.8	5.4
MAX	*	6.2	6.0	6.7	6.3
DEGR.	*	10	260	10	350

THE HIGHEST CONCENTRATION OF 6.74 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.74 X 0.6 = 4.04 PPM

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Alt Project,2007

DATE : 1/ 6/ 5
TIME : 11:12: 9

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	506.0	.0	506.0	500.0	500.	360. AG	78.	5.5	.0	32.0		
2. nbd	506.0	500.0	506.0	1000.0	500.	360. AG	1002.	5.5	.0	32.0		
3. nbq	506.0	452.0	506.0	432.0	20.	180. AG	73.	100.0	.0	12.0	.37	1.0
4. sba	482.0	1000.0	482.0	500.0	500.	180. AG	785.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180. AG	65.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1175.1	627.	360. AG	218.	100.0	.0	36.0	1.23	31.9
7. eba	.0	476.0	500.0	476.0	500.	90. AG	1971.	5.5	.0	68.0		
8. ebq	464.0	476.0	437.1	476.0	27.	270. AG	62.	100.0	.0	48.0	.41	1.4
9. wba	1000.0	524.0	500.0	524.0	500.	270. AG	2194.	5.5	.0	68.0		
10. wbd	500.0	524.0	.0	524.0	500.	270. AG	1925.	5.5	.0	44.0		
11. wbq	512.0	524.0	542.0	524.0	30.	90. AG	62.	100.0	.0	48.0	.46	1.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Alt Project,2007

DATE : 1/ 6/ 5
TIME : 11:12: 9

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	47	3.0	78	1600	34.53	3	3
6. sbq	60	47	3.0	785	1600	34.53	3	3
8. ebq	60	10	3.0	1971	1600	34.53	3	3
11. wbq	60	10	3.0	2194	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	532.0	568.0	5.0
3. SW	444.0	432.0	5.0
4. SE	532.0	432.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Malibu Cyn & PCH, Alt Project,2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.0	5.0	5.8	5.4
10.	6.2	4.3	6.7	4.5
20.	5.8	4.3	5.8	4.6
30.	5.6	4.3	5.3	4.6
40.	5.5	4.3	5.0	4.6
50.	5.2	4.3	4.8	4.6
60.	5.2	4.3	4.9	4.6
70.	5.1	4.3	4.9	4.7
80.	5.1	4.3	4.8	4.5
90.	5.5	4.6	4.4	4.3
100.	5.8	5.0	4.3	4.3
110.	5.6	5.0	4.3	4.3
120.	5.3	4.8	4.3	4.3
130.	5.0	4.7	4.3	4.3
140.	5.0	4.7	4.3	4.3
150.	4.8	4.7	4.3	4.3
160.	4.9	4.6	4.3	4.3
170.	4.9	4.7	4.3	4.3
180.	4.9	4.8	4.3	4.3
190.	4.8	4.9	4.3	4.3
200.	4.8	5.0	4.3	4.3
210.	4.8	5.3	4.3	4.3

220.	*	4.8	5.3	4.3	4.3
230.	*	5.0	5.3	4.3	4.3
240.	*	5.0	5.5	4.3	4.3
250.	*	5.1	5.9	4.3	4.3
260.	*	5.1	6.0	4.3	4.3
270.	*	4.5	5.3	4.6	4.7
280.	*	4.3	5.1	5.2	5.4
290.	*	4.3	5.2	5.2	5.4
300.	*	4.3	5.2	5.1	5.3
310.	*	4.3	5.2	5.0	5.0
320.	*	4.3	5.3	4.9	4.8
330.	*	4.3	5.6	4.8	5.0
340.	*	4.3	5.8	4.8	5.5
350.	*	4.3	6.0	4.9	6.3
360.	*	5.0	5.0	5.8	5.4
MAX	*	6.2	6.0	6.7	6.3
DEGR.	*	10	260	10	350

THE HIGHEST CONCENTRATION OF 6.74 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.74 X 0.6 = 4.04 PPM

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:20:49

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360. AG	339.	6.9	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360. AG	629.	6.9	.0	44.0		
3. nbq	512.0	440.0	512.0	392.0	48.	180. AG	182.	100.0	.0	24.0	.71	2.4
4. sba	488.0	1000.0	488.0	500.0	500.	180. AG	492.	6.9	.0	56.0		
5. sbd	488.0	500.0	488.0	.0	500.	180. AG	435.	6.9	.0	32.0		
6. sbq	488.0	548.0	488.0	593.5	46.	360. AG	273.	100.0	.0	36.0	.69	2.3
7. eba	.0	470.0	500.0	470.0	500.	90. AG	1579.	6.9	.0	80.0		
8. ebd	500.0	470.0	1000.0	470.0	500.	90. AG	1720.	6.9	.0	56.0		
9. ebq	476.0	470.0	457.1	470.0	19.	270. AG	109.	100.0	.0	60.0	.27	1.0
10. wba	1000.0	524.0	500.0	524.0	500.	270. AG	1795.	6.9	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270. AG	1421.	6.9	.0	44.0		
12. wbq	524.0	524.0	550.9	524.0	27.	90. AG	87.	100.0	.0	48.0	.38	1.4

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:20:49

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	46	3.0	339	1600	44.30	3	3
6. sbq	60	46	3.0	492	1600	44.30	3	3
9. ebq	60	11	3.0	1579	1600	44.30	3	3
12. wbq	60	11	3.0	1795	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	456.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	456.0	420.0	5.0
4. SE	544.0	420.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, Existing, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.4	5.4	6.2	6.2
10.	5.8	5.3	6.7	5.8
20.	5.7	5.3	6.6	5.9
30.	5.8	5.3	6.3	5.9
40.	5.8	5.3	6.2	6.0
50.	6.0	5.3	6.3	6.0
60.	6.2	5.3	6.3	6.1
70.	6.3	5.3	6.7	6.3
80.	6.3	5.3	6.7	6.1
90.	6.7	5.6	6.1	5.5
100.	7.3	6.3	5.9	5.3
110.	7.3	6.4	5.8	5.3
120.	6.9	6.1	5.6	5.3
130.	6.6	6.0	5.5	5.3
140.	6.3	5.9	5.5	5.3
150.	6.3	5.9	5.5	5.3
160.	6.4	5.8	5.6	5.3
170.	6.4	5.9	5.6	5.3
180.	6.0	6.3	5.4	5.4
190.	5.8	6.5	5.3	5.6
200.	5.8	6.6	5.3	5.5

210.	*	5.8	6.2	5.3	5.5
220.	*	5.8	6.3	5.3	5.7
230.	*	5.9	6.3	5.3	5.8
240.	*	6.0	6.4	5.3	6.0
250.	*	6.1	6.8	5.3	6.0
260.	*	6.0	6.9	5.3	6.0
270.	*	5.5	6.3	5.5	6.3
280.	*	5.3	6.1	6.0	6.8
290.	*	5.3	6.0	6.2	6.9
300.	*	5.3	5.7	6.0	6.6
310.	*	5.3	5.7	5.9	6.3
320.	*	5.3	5.6	5.8	6.1
330.	*	5.3	5.6	5.8	6.3
340.	*	5.3	5.7	5.8	6.5
350.	*	5.3	5.7	5.8	6.5
360.	*	5.4	5.4	6.2	6.2
MAX	*	7.3	6.9	6.7	6.9
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION OF 7.33 PPM OCCURRED AT RECEPTOR REC1.
THE 8-HOUR CO CONCENTRATION = 7.33 X 0.6 = 4.40 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, Existing & SM, 2004

DATE : 1/ 6/ 5
TIME : 16:24: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	300.	6.9	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	404.	6.9	.0	44.0		
3. nbq	512.0	440.0	512.0	385.8	54.	180.	AG	190.	100.0	.0	24.0	.81	2.8
4. sba	488.0	1000.0	488.0	500.0	500.	180.	AG	333.	6.9	.0	56.0		
5. sbd	488.0	500.0	488.0	.0	500.	180.	AG	477.	6.9	.0	32.0		
6. sbq	488.0	548.0	488.0	578.5	31.	360.	AG	285.	100.0	.0	36.0	.60	1.6
7. eba	.0	470.0	500.0	470.0	500.	90.	AG	1783.	6.9	.0	80.0		
8. ebd	500.0	470.0	1000.0	470.0	500.	90.	AG	1752.	6.9	.0	56.0		
9. ebq	476.0	470.0	458.5	470.0	18.	270.	AG	89.	100.0	.0	60.0	.29	.9
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	1765.	6.9	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1548.	6.9	.0	44.0		
12. wbq	524.0	524.0	545.7	524.0	22.	90.	AG	71.	100.0	.0	48.0	.36	1.1

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, Existing & SM, 2004

DATE : 1/ 6/ 5
TIME : 16:24: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	48	3.0	300	1600	44.30	3	3
6. sbq	60	48	3.0	333	1600	44.30	3	3
9. ebq	60	9	3.0	1783	1600	44.30	3	3
12. wbq	60	9	3.0	1765	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	456.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	456.0	420.0	5.0
4. SE	544.0	420.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, Existing & SM, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.4	5.4	6.1	6.0
10.	5.6	5.3	6.4	5.8
20.	5.5	5.3	6.4	5.9
30.	5.5	5.3	6.2	6.0
40.	5.5	5.3	6.1	6.0
50.	5.6	5.3	6.3	6.0
60.	5.7	5.3	6.4	6.1
70.	5.9	5.3	6.7	6.3
80.	6.2	5.3	6.6	6.1
90.	6.7	5.6	6.1	5.5
100.	7.3	6.2	5.8	5.3
110.	7.4	6.4	5.9	5.3
120.	6.9	6.1	5.8	5.3
130.	6.5	6.0	5.6	5.3
140.	6.2	6.0	5.5	5.3
150.	6.3	5.9	5.5	5.3
160.	6.5	5.9	5.6	5.3
170.	6.4	5.8	5.6	5.3
180.	6.0	6.2	5.4	5.4
190.	5.8	6.5	5.3	5.5
200.	5.9	6.4	5.3	5.5

210.	*	5.9	6.2	5.3	5.6
220.	*	5.9	6.1	5.3	5.8
230.	*	6.0	6.2	5.3	6.0
240.	*	6.0	6.5	5.3	6.1
250.	*	6.2	6.8	5.3	6.0
260.	*	6.1	7.0	5.3	6.0
270.	*	5.5	6.3	5.6	6.3
280.	*	5.3	5.9	6.1	6.9
290.	*	5.3	5.6	6.2	6.8
300.	*	5.3	5.5	6.1	6.7
310.	*	5.3	5.5	5.9	6.4
320.	*	5.3	5.5	5.9	6.1
330.	*	5.3	5.5	5.8	6.3
340.	*	5.3	5.6	5.8	6.4
350.	*	5.3	5.6	5.8	6.3
360.	*	5.4	5.4	6.1	6.0
MAX	*	7.4	7.0	6.7	6.9
DEGR.	*	110	260	70	280

THE HIGHEST CONCENTRATION OF 7.43 PPM OCCURRED AT RECEPTOR REC1.
THE 8-HOUR CO CONCENTRATION = 7.43 X 0.6 = 4.46 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:22:58

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	359.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	636.	5.5	.0	44.0		
3. nbq	512.0	440.0	512.0	396.5	44.	180.	AG	136.	100.0	.0	24.0	.61	2.2
4. sba	488.0	1000.0	488.0	500.0	500.	180.	AG	824.	5.5	.0	56.0		
5. sbd	488.0	500.0	488.0	.0	500.	180.	AG	636.	5.5	.0	32.0		
6. sbq	488.0	548.0	488.0	662.9	115.	360.	AG	204.	100.0	.0	36.0	.94	5.8
7. eba	.0	470.0	500.0	470.0	500.	90.	AG	1938.	5.5	.0	80.0		
8. ebd	500.0	470.0	1000.0	470.0	500.	90.	AG	2054.	5.5	.0	56.0		
9. ebq	476.0	470.0	448.5	470.0	28.	270.	AG	100.	100.0	.0	60.0	.35	1.4
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2070.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1865.	5.5	.0	44.0		
12. wbq	524.0	524.0	560.8	524.0	37.	90.	AG	80.	100.0	.0	48.0	.46	1.9

PAGE 2

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:22:58

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	44	3.0	359	1600	34.53	3	3
6. sbq	60	44	3.0	824	1600	34.53	3	3
9. ebq	60	13	3.0	1938	1600	34.53	3	3
12. wbq	60	13	3.0	2070	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	456.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	456.0	420.0	5.0
4. SE	544.0	420.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, No Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.5	4.4	5.4	5.1
10.	5.1	4.3	6.0	4.9
20.	5.4	4.3	5.5	4.8
30.	5.4	4.3	5.3	4.8
40.	5.4	4.3	5.1	4.9
50.	5.3	4.3	5.3	5.0
60.	5.2	4.3	5.3	5.0
70.	5.1	4.3	5.4	5.1
80.	5.1	4.3	5.5	5.0
90.	5.4	4.6	4.9	4.5
100.	6.0	5.2	4.7	4.3
110.	6.0	5.2	4.7	4.3
120.	5.7	5.1	4.6	4.3
130.	5.5	5.0	4.5	4.3
140.	5.2	4.9	4.5	4.3
150.	5.2	4.9	4.6	4.3
160.	5.4	4.9	4.6	4.3
170.	5.4	5.0	4.6	4.3
180.	5.0	5.1	4.4	4.4
190.	4.8	5.5	4.3	4.5
200.	4.8	5.5	4.3	4.5

210.	*	4.8	5.3	4.3	4.5
220.	*	4.8	5.1	4.3	4.6
230.	*	5.0	5.3	4.3	4.7
240.	*	5.0	5.4	4.3	4.8
250.	*	5.1	5.7	4.3	4.9
260.	*	5.0	5.7	4.3	4.9
270.	*	4.5	5.2	4.5	5.2
280.	*	4.3	5.0	5.0	5.7
290.	*	4.3	5.0	5.2	5.8
300.	*	4.3	5.0	5.0	5.5
310.	*	4.3	5.0	4.9	5.2
320.	*	4.3	5.0	4.8	5.1
330.	*	4.3	5.1	4.8	5.4
340.	*	4.3	4.8	4.8	5.6
350.	*	4.3	4.7	4.9	5.6
360.	*	4.5	4.4	5.4	5.1
MAX	*	6.0	5.7	6.0	5.8
DEGR.	*	100	250	10	290

THE HIGHEST CONCENTRATION OF 6.04 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.04 X 0.6 = 3.62 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, No Proj & SM, 2007

DATE : 1/ 6/ 5
TIME : 16:24:57

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	311.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	667.	5.5	.0	44.0		
3. nbq	512.0	440.0	512.0	380.7	59.	180.	AG	148.	100.0	.0	24.0	.83	3.0
4. sba	488.0	1000.0	488.0	500.0	500.	180.	AG	507.	5.5	.0	56.0		
5. sbd	488.0	500.0	488.0	.0	500.	180.	AG	434.	5.5	.0	32.0		
6. sbq	488.0	548.0	488.0	626.4	78.	360.	AG	222.	100.0	.0	36.0	.91	4.0
7. eba	.0	470.0	500.0	470.0	500.	90.	AG	2140.	5.5	.0	80.0		
8. ebd	500.0	470.0	1000.0	470.0	500.	90.	AG	2014.	5.5	.0	56.0		
9. ebq	476.0	470.0	454.9	470.0	21.	270.	AG	69.	100.0	.0	60.0	.35	1.1
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2021.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1864.	5.5	.0	44.0		
12. wbq	524.0	524.0	548.9	524.0	25.	90.	AG	56.	100.0	.0	48.0	.41	1.3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, No Proj & SM, 2007

DATE : 1/ 6/ 5
TIME : 16:24:57

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	48	3.0	311	1600	34.53	3	3
6. sbq	60	48	3.0	507	1600	34.53	3	3
9. ebq	60	9	3.0	2140	1600	34.53	3	3
12. wbq	60	9	3.0	2021	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	456.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	456.0	420.0	5.0
4. SE	544.0	420.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH, No Proj & SM, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.4	4.4	5.3	5.0
10.	4.7	4.3	5.8	4.8
20.	5.0	4.3	5.4	4.8
30.	5.1	4.3	5.2	4.8
40.	5.3	4.3	5.0	4.8
50.	5.3	4.3	5.1	5.0
60.	5.2	4.3	5.2	5.0
70.	5.2	4.3	5.5	5.1
80.	5.1	4.3	5.5	5.0
90.	5.5	4.6	4.9	4.5
100.	6.1	5.2	4.7	4.3
110.	5.9	5.2	4.7	4.3
120.	5.7	5.1	4.7	4.3
130.	5.4	5.0	4.5	4.3
140.	5.1	4.9	4.5	4.3
150.	5.1	4.8	4.5	4.3
160.	5.4	4.8	4.5	4.3
170.	5.4	4.9	4.6	4.3
180.	5.0	5.1	4.4	4.4
190.	4.8	5.3	4.3	4.5
200.	4.8	5.4	4.3	4.5

210.	*	4.9	5.2	4.3	4.6
220.	*	4.9	5.0	4.3	4.8
230.	*	5.0	5.2	4.3	4.9
240.	*	5.0	5.3	4.3	5.0
250.	*	5.2	5.8	4.3	4.9
260.	*	5.0	5.9	4.3	4.9
270.	*	4.5	5.2	4.6	5.2
280.	*	4.3	5.0	5.1	5.8
290.	*	4.3	5.0	5.2	5.7
300.	*	4.3	5.1	5.1	5.7
310.	*	4.3	5.0	4.9	5.3
320.	*	4.3	4.7	4.9	5.1
330.	*	4.3	4.7	4.8	5.4
340.	*	4.3	4.6	4.8	5.5
350.	*	4.3	4.7	4.8	5.4
360.	*	4.4	4.4	5.3	5.0
MAX	*	6.1	5.9	5.8	5.8
DEGR.	*	100	260	10	280

THE HIGHEST CONCENTRATION OF 6.14 PPM OCCURRED AT RECEPTOR REC1.
THE 8-HOUR CO CONCENTRATION = 6.14 X 0.6 = 3.68 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Preferred Project, 2007

DATE : 1/ 6/ 5
TIME : 17:24:43

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	359.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	847.	5.5	.0	56.0		
3. nbq	512.0	464.0	512.0	420.5	44.	180.	AG	136.	100.0	.0	24.0	.61	2.2
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	887.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	457.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	723.0	175.	360.	AG	204.	100.0	.0	36.0	1.01	8.9
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	1984.	5.5	.0	92.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2068.	5.5	.0	56.0		
9. ebq	464.0	482.0	440.5	482.0	23.	270.	AG	120.	100.0	.0	72.0	.29	1.2
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2100.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1958.	5.5	.0	44.0		
12. wbq	524.0	524.0	561.3	524.0	37.	90.	AG	80.	100.0	.0	48.0	.47	1.9

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JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Preferred Project, 2007

DATE : 1/ 6/ 5
TIME : 17:24:43

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	44	3.0	359	1600	34.53	3	3
6. sbq	60	44	3.0	887	1600	34.53	3	3
9. ebq	60	13	3.0	1984	1600	34.53	3	3
12. wbq	60	13	3.0	2100	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Preferred Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.5	4.5	5.5	5.4
10.	5.1	4.3	6.3	4.9
20.	5.6	4.3	6.0	4.9
30.	5.5	4.3	5.4	5.0
40.	5.3	4.3	5.3	5.0
50.	5.3	4.3	5.4	5.0
60.	5.2	4.3	5.5	5.2
70.	5.1	4.3	5.7	5.4
80.	5.1	4.3	6.0	5.4
90.	5.4	4.6	5.4	4.6
100.	6.1	5.2	4.8	4.3
110.	6.0	5.3	4.6	4.3
120.	5.7	5.1	4.4	4.3
130.	5.4	5.0	4.4	4.3
140.	5.4	5.0	4.5	4.3
150.	5.3	5.0	4.5	4.3
160.	5.3	5.0	4.5	4.3
170.	5.2	5.0	4.5	4.3
180.	5.1	5.1	4.4	4.4
190.	4.8	5.5	4.3	4.5
200.	4.8	5.6	4.3	4.5

210.	*	4.9	5.3	4.4	4.5
220.	*	4.9	5.3	4.4	4.6
230.	*	5.0	5.4	4.4	4.7
240.	*	5.0	5.5	4.4	4.8
250.	*	5.2	5.7	4.4	4.9
260.	*	5.2	5.8	4.5	5.0
270.	*	4.5	5.4	4.9	5.4
280.	*	4.3	5.0	5.3	5.9
290.	*	4.3	5.0	5.3	5.9
300.	*	4.3	5.1	5.1	5.6
310.	*	4.3	5.1	5.0	5.2
320.	*	4.3	5.2	4.9	5.3
330.	*	4.3	5.3	4.8	5.6
340.	*	4.3	5.1	4.9	5.8
350.	*	4.3	5.0	4.9	5.7
360.	*	4.5	4.5	5.5	5.4
MAX	*	6.1	5.8	6.3	5.9
DEGR.	*	100	260	10	280

THE HIGHEST CONCENTRATION OF 6.34 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.34 X 0.6 = 3.80 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Pref Project & SM, 2007

DATE : 1/ 6/ 5
TIME : 17:29: 3

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	311.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	646.	5.5	.0	56.0		
3. nbq	512.0	464.0	512.0	417.0	47.	180.	AG	145.	100.0	.0	24.0	.73	2.4
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	549.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	501.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	618.7	71.	360.	AG	218.	100.0	.0	36.0	.86	3.6
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	2207.	5.5	.0	92.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2035.	5.5	.0	56.0		
9. ebq	464.0	482.0	443.9	482.0	20.	270.	AG	93.	100.0	.0	72.0	.31	1.0
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2041.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1926.	5.5	.0	44.0		
12. wbq	524.0	524.0	551.9	524.0	28.	90.	AG	62.	100.0	.0	48.0	.43	1.4

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JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Pref Project & SM, 2007

DATE : 1/ 6/ 5
TIME : 17:29: 3

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	47	3.0	311	1600	34.53	3	3
6. sbq	60	47	3.0	549	1600	34.53	3	3
9. ebq	60	10	3.0	2207	1600	34.53	3	3
12. wbq	60	10	3.0	2041	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Pref Project & SM, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.4	4.5	5.1	5.1
10.	4.6	4.3	5.7	4.8
20.	4.7	4.3	5.6	4.9
30.	4.8	4.3	5.3	5.0
40.	5.0	4.3	5.3	5.0
50.	5.2	4.3	5.3	5.0
60.	5.2	4.3	5.4	5.1
70.	5.1	4.3	5.8	5.3
80.	5.1	4.3	6.1	5.3
90.	5.4	4.6	5.5	4.6
100.	6.1	5.2	4.9	4.3
110.	6.0	5.3	4.7	4.3
120.	5.6	5.1	4.5	4.3
130.	5.4	5.0	4.4	4.3
140.	5.2	4.9	4.4	4.3
150.	5.3	4.9	4.5	4.3
160.	5.2	4.8	4.5	4.3
170.	5.3	4.9	4.6	4.3
180.	5.1	5.1	4.4	4.4
190.	4.9	5.5	4.3	4.5
200.	4.9	5.5	4.3	4.5

210.	*	4.9	5.2	4.4	4.5
220.	*	4.9	5.0	4.4	4.6
230.	*	5.0	5.3	4.4	4.8
240.	*	5.1	5.4	4.4	4.9
250.	*	5.2	5.7	4.4	4.9
260.	*	5.2	5.9	4.5	5.0
270.	*	4.5	5.3	5.0	5.5
280.	*	4.3	5.0	5.4	5.9
290.	*	4.3	5.0	5.4	6.0
300.	*	4.3	5.0	5.1	5.7
310.	*	4.3	4.8	5.1	5.2
320.	*	4.3	4.6	4.9	5.3
330.	*	4.3	4.6	4.9	5.4
340.	*	4.3	4.6	4.8	5.4
350.	*	4.3	4.7	4.9	5.3
360.	*	4.4	4.5	5.1	5.1
MAX	*	6.1	5.9	6.1	6.0
DEGR.	*	100	260	80	290

THE HIGHEST CONCENTRATION OF 6.14 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 8.03 X 0.6 = 3.68 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Alt Project, 2007

DATE : 1/ 6/ 5
TIME : 17:30: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	512.0	.0	512.0	500.0	*	500.	360. AG	359.	5.5	.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	844.	5.5	.0	56.0		
3. nbq	*	512.0	464.0	512.0	420.5	*	44.	180. AG	136.	100.0	.0	24.0	.61	2.2
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	873.	5.5	.0	56.0		
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	457.	5.5	.0	32.0		
6. sbq	*	482.0	548.0	482.0	697.3	*	149.	360. AG	204.	100.0	.0	36.0	.99	7.6
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1980.	5.5	.0	92.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	2067.	5.5	.0	56.0		
9. ebq	*	464.0	482.0	440.5	482.0	*	23.	270. AG	120.	100.0	.0	72.0	.29	1.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2093.	5.5	.0	68.0		
11. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1937.	5.5	.0	44.0		
12. wbq	*	524.0	524.0	561.2	524.0	*	37.	90. AG	80.	100.0	.0	48.0	.47	1.9

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JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Alt Project, 2007

DATE : 1/ 6/ 5
TIME : 17:30: 6

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	44	3.0	359	1600	34.53	3	3
6. sbq	*	60	44	3.0	873	1600	34.53	3	3
9. ebq	*	60	13	3.0	1980	1600	34.53	3	3
12. wbq	*	60	13	3.0	2093	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. NW	*	444.0	568.0	5.0	*
2. NE	*	544.0	568.0	5.0	*
3. SW	*	444.0	444.0	5.0	*
4. SE	*	544.0	444.0	5.0	*

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JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Alt Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	* 4.4	4.5	5.5	5.4
10.	* 5.0	4.3	6.2	4.9
20.	* 5.5	4.3	6.0	4.9
30.	* 5.5	4.3	5.4	5.0
40.	* 5.3	4.3	5.4	5.0
50.	* 5.3	4.3	5.4	5.0
60.	* 5.1	4.3	5.5	5.2
70.	* 5.1	4.3	5.7	5.4
80.	* 5.1	4.3	6.0	5.4
90.	* 5.4	4.6	5.4	4.6
100.	* 6.1	5.2	4.8	4.3
110.	* 6.0	5.3	4.6	4.3
120.	* 5.6	5.1	4.4	4.3
130.	* 5.4	5.0	4.4	4.3
140.	* 5.4	5.0	4.5	4.3
150.	* 5.3	5.0	4.5	4.3
160.	* 5.3	5.0	4.5	4.3
170.	* 5.2	5.0	4.5	4.3
180.	* 5.1	5.1	4.4	4.4
190.	* 4.8	5.5	4.3	4.5
200.	* 4.8	5.6	4.3	4.5

210.	*	4.9	5.2	4.4	4.5
220.	*	4.9	5.3	4.4	4.6
230.	*	5.0	5.4	4.4	4.7
240.	*	5.0	5.5	4.4	4.8
250.	*	5.2	5.7	4.4	4.9
260.	*	5.2	5.8	4.5	5.0
270.	*	4.5	5.4	4.9	5.4
280.	*	4.3	5.0	5.3	5.9
290.	*	4.3	5.0	5.3	5.9
300.	*	4.3	5.1	5.1	5.6
310.	*	4.3	5.1	5.0	5.2
320.	*	4.3	5.2	4.9	5.3
330.	*	4.3	5.2	4.8	5.6
340.	*	4.3	5.0	4.9	5.8
350.	*	4.3	4.9	4.9	5.7
360.	*	4.4	4.5	5.5	5.4
MAX	*	6.1	5.8	6.2	5.9
DEGR.	*	100	260	10	280

THE HIGHEST CONCENTRATION OF 6.24 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.24 X 0.6 = 3.74 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Alt Project & SM, 2007

DATE : 1/ 6/ 5
TIME : 17:33:52

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	311.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	644.	5.5	.0	56.0		
3. nbq	512.0	464.0	512.0	417.0	47.	180.	AG	145.	100.0	.0	24.0	.73	2.4
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	547.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	501.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	617.6	70.	360.	AG	218.	100.0	.0	36.0	.85	3.5
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	2204.	5.5	.0	92.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2034.	5.5	.0	56.0		
9. ebq	464.0	482.0	443.9	482.0	20.	270.	AG	93.	100.0	.0	72.0	.31	1.0
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2040.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1923.	5.5	.0	44.0		
12. wbq	524.0	524.0	551.9	524.0	28.	90.	AG	62.	100.0	.0	48.0	.43	1.4

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JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Alt Project & SM, 2007

DATE : 1/ 6/ 5
TIME : 17:33:52

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	47	3.0	311	1600	34.53	3	3
6. sbq	60	47	3.0	547	1600	34.53	3	3
9. ebq	60	10	3.0	2204	1600	34.53	3	3
12. wbq	60	10	3.0	2040	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Way & PCH,Alt Project & SM, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.4	4.5	5.1	5.1
10.	4.6	4.3	5.7	4.8
20.	4.7	4.3	5.6	4.9
30.	4.8	4.3	5.3	5.0
40.	5.0	4.3	5.3	5.0
50.	5.2	4.3	5.3	5.0
60.	5.2	4.3	5.4	5.1
70.	5.1	4.3	5.8	5.3
80.	5.1	4.3	6.1	5.3
90.	5.4	4.6	5.5	4.6
100.	6.1	5.2	4.9	4.3
110.	6.0	5.3	4.7	4.3
120.	5.6	5.1	4.5	4.3
130.	5.4	5.0	4.4	4.3
140.	5.2	4.9	4.4	4.3
150.	5.3	4.9	4.5	4.3
160.	5.2	4.8	4.5	4.3
170.	5.3	4.9	4.6	4.3
180.	5.1	5.1	4.4	4.4
190.	4.9	5.5	4.3	4.5
200.	4.9	5.5	4.3	4.5

210.	*	4.9	5.2	4.4	4.5
220.	*	4.9	5.0	4.4	4.6
230.	*	5.0	5.3	4.4	4.8
240.	*	5.1	5.4	4.4	4.9
250.	*	5.2	5.7	4.4	4.9
260.	*	5.2	5.9	4.5	5.0
270.	*	4.5	5.3	5.0	5.5
280.	*	4.3	5.0	5.4	5.9
290.	*	4.3	5.0	5.4	6.0
300.	*	4.3	5.0	5.1	5.7
310.	*	4.3	4.8	5.1	5.2
320.	*	4.3	4.6	4.9	5.3
330.	*	4.3	4.6	4.9	5.4
340.	*	4.3	4.6	4.8	5.4
350.	*	4.3	4.7	4.9	5.3
360.	*	4.4	4.5	5.1	5.1
MAX	*	6.1	5.9	6.1	6.0
DEGR.	*	100	260	80	290

THE HIGHEST CONCENTRATION OF 6.14 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.14 X 0.6 = 3.68 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:26: 8

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (P) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	24.	6.9	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	386.	6.9	.0	32.0		
3. nbq	512.0	464.0	512.0	460.7	3.	180.	AG	202.	100.0	.0	24.0	.11	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	417.	6.9	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	19.	6.9	.0	32.0		
6. sbq	482.0	536.0	482.0	965.7	430.	360.	AG	303.	100.0	.0	36.0	1.31	21.8
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	1939.	6.9	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2064.	6.9	.0	44.0		
9. ebq	464.0	482.0	442.8	482.0	21.	270.	AG	36.	100.0	.0	36.0	.49	1.1
10. wba	1000.0	518.0	500.0	518.0	500.	270.	AG	1911.	6.9	.0	56.0		
11. wbd	500.0	518.0	.0	518.0	500.	270.	AG	1822.	6.9	.0	44.0		
12. wbq	524.0	518.0	544.9	518.0	21.	90.	AG	36.	100.0	.0	36.0	.49	1.1

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:26: 8

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	51	3.0	24	1600	44.30	3	3
6. sbq	60	51	3.0	417	1600	44.30	3	3
9. ebq	60	6	3.0	1939	1600	44.30	3	3
12. wbq	60	6	3.0	1911	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	556.0	5.0
2. NE	544.0	556.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Existing, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	6.0	5.5	6.9	6.4
10.	7.3	5.3	8.0	6.0
20.	7.1	5.3	7.2	6.0
30.	6.7	5.3	6.5	6.0
40.	6.6	5.3	6.1	6.1
50.	6.5	5.3	6.2	6.2
60.	6.5	5.3	6.4	6.3
70.	6.4	5.3	6.6	6.5
80.	6.3	5.3	6.8	6.6
90.	6.8	5.8	5.8	5.7
100.	7.6	6.6	5.3	5.3
110.	7.4	6.6	5.3	5.3
120.	6.8	6.3	5.3	5.3
130.	6.5	6.2	5.3	5.3
140.	6.4	6.1	5.3	5.3
150.	6.2	6.0	5.3	5.3
160.	6.0	6.0	5.3	5.3
170.	6.0	6.0	5.3	5.3
180.	6.0	6.1	5.3	5.3
190.	5.9	6.1	5.3	5.3
200.	6.0	6.1	5.3	5.3

210.	*	6.0	6.2	5.3	5.3
220.	*	6.0	6.1	5.3	5.3
230.	*	6.2	6.3	5.3	5.3
240.	*	6.2	6.6	5.3	5.3
250.	*	6.5	7.0	5.3	5.3
260.	*	6.5	7.3	5.3	5.3
270.	*	5.7	6.7	5.7	5.8
280.	*	5.3	6.2	6.5	6.6
290.	*	5.3	6.2	6.5	6.6
300.	*	5.3	6.2	6.3	6.4
310.	*	5.3	6.2	6.1	6.2
320.	*	5.3	6.4	6.1	6.4
330.	*	5.3	6.5	6.0	6.8
340.	*	5.3	6.7	6.0	7.3
350.	*	5.3	6.5	6.0	7.4
360.	*	6.0	5.5	6.9	6.4
MAX	*	7.6	7.3	8.0	7.4
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 8.03 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 8.03 X 0.6 = 4.82 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Existing & SM, 2004

DATE : 1/ 6/ 5
TIME : 16:26:50

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	*	512.0	.0	512.0	500.0	*	500.	360. AG	26.	6.9	.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	451.	6.9	.0	32.0		
3. nbq	*	512.0	464.0	512.0	460.4	*	4.	180. AG	202.	100.0	.0	24.0	.12	.2
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	399.	6.9	.0	56.0		
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	33.	6.9	.0	32.0		
6. sbq	*	482.0	536.0	482.0	902.2	*	366.	360. AG	303.	100.0	.0	36.0	1.25	18.6
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1713.	6.9	.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1713.	6.9	.0	44.0		
9. ebq	*	464.0	482.0	445.3	482.0	*	19.	270. AG	36.	100.0	.0	36.0	.44	1.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1937.	6.9	.0	56.0		
11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1878.	6.9	.0	44.0		
12. wbq	*	524.0	518.0	545.2	518.0	*	21.	90. AG	36.	100.0	.0	36.0	.49	1.1

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Existing & SM, 2004

DATE : 1/ 6/ 5
TIME : 16:26:50

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	51	3.0	26	1600	44.30	3	3
6. sbq	*	60	51	3.0	399	1600	44.30	3	3
9. ebq	*	60	6	3.0	1713	1600	44.30	3	3
12. wbq	*	60	6	3.0	1937	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. NW	*	444.0	556.0	5.0	*
2. NE	*	544.0	556.0	5.0	*
3. SW	*	444.0	444.0	5.0	*
4. SE	*	544.0	444.0	5.0	*

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Existing & SM, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	*	5.9	5.5	6.7	6.2
10.	*	7.1	5.3	7.9	5.9
20.	*	7.1	5.3	7.1	5.9
30.	*	6.7	5.3	6.6	6.0
40.	*	6.6	5.3	6.1	6.0
50.	*	6.5	5.3	6.0	6.1
60.	*	6.5	5.3	6.3	6.2
70.	*	6.4	5.3	6.5	6.4
80.	*	6.3	5.3	6.6	6.4
90.	*	6.8	5.7	5.7	5.7
100.	*	7.5	6.5	5.3	5.3
110.	*	7.3	6.5	5.3	5.3
120.	*	6.9	6.3	5.3	5.3
130.	*	6.6	6.1	5.3	5.3
140.	*	6.3	6.1	5.3	5.3
150.	*	6.1	6.0	5.3	5.3
160.	*	6.0	6.0	5.3	5.3
170.	*	6.0	6.0	5.3	5.3
180.	*	6.0	6.1	5.3	5.3
190.	*	6.0	6.0	5.3	5.3
200.	*	6.0	6.0	5.3	5.3

210.	*	6.0	6.1	5.3	5.3
220.	*	6.0	6.1	5.3	5.3
230.	*	6.1	6.2	5.3	5.3
240.	*	6.3	6.6	5.3	5.3
250.	*	6.4	6.9	5.3	5.3
260.	*	6.4	7.3	5.3	5.3
270.	*	5.6	6.7	5.6	5.8
280.	*	5.3	6.2	6.4	6.5
290.	*	5.3	6.2	6.5	6.5
300.	*	5.3	6.2	6.2	6.3
310.	*	5.3	6.2	6.2	6.1
320.	*	5.3	6.4	6.0	6.3
330.	*	5.3	6.5	6.0	6.8
340.	*	5.3	6.7	5.9	7.2
350.	*	5.3	6.3	5.9	7.3
360.	*	5.9	5.5	6.7	6.2
MAX	*	7.5	7.3	7.9	7.3
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 7.93 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 7.93 X 0.6 = 4.76 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:27:36

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (PT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	25.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	515.	5.5	.0	32.0		
3. nbq	512.0	464.0	512.0	460.8	3.	180.	AG	151.	100.0	.0	24.0	.08	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	668.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	19.	5.5	.0	32.0		
6. sbq	482.0	536.0	482.0	1301.8	766.	360.	AG	227.	100.0	.0	36.0	1.40	38.9
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	2297.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2589.	5.5	.0	44.0		
9. ebq	464.0	482.0	430.5	482.0	33.	270.	AG	37.	100.0	.0	36.0	.61	1.7
10. wba	1000.0	518.0	500.0	518.0	500.	270.	AG	2231.	5.5	.0	56.0		
11. wbd	500.0	518.0	.0	518.0	500.	270.	AG	2098.	5.5	.0	44.0		
12. wbq	524.0	518.0	556.5	518.0	33.	90.	AG	37.	100.0	.0	36.0	.59	1.7

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:27:36

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	49	3.0	25	1600	34.53	3	3
6. sbq	60	49	3.0	668	1600	34.53	3	3
9. ebq	60	8	3.0	2297	1600	34.53	3	3
12. wbq	60	8	3.0	2231	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	556.0	5.0
2. NE	544.0	556.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, No Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.2	4.7	5.9	5.6
10.	6.1	4.3	6.7	5.0
20.	5.7	4.3	6.1	5.0
30.	5.5	4.3	5.4	5.1
40.	5.3	4.3	5.1	5.1
50.	5.2	4.3	5.1	5.1
60.	5.2	4.3	5.4	5.3
70.	5.1	4.3	5.6	5.5
80.	5.1	4.3	5.7	5.5
90.	5.6	4.8	4.8	4.7
100.	6.4	5.5	4.3	4.3
110.	6.1	5.5	4.3	4.3
120.	5.7	5.3	4.3	4.3
130.	5.3	5.2	4.3	4.3
140.	5.1	5.0	4.3	4.3
150.	5.1	5.0	4.3	4.3
160.	5.0	5.0	4.3	4.3
170.	5.0	5.1	4.3	4.3
180.	5.0	5.1	4.3	4.3
190.	4.9	5.1	4.3	4.3
200.	4.9	5.1	4.3	4.3

210.	*	5.0	5.1	4.3	4.3
220.	*	5.0	5.1	4.3	4.3
230.	*	5.1	5.3	4.3	4.3
240.	*	5.2	5.6	4.3	4.3
250.	*	5.4	5.9	4.3	4.3
260.	*	5.3	6.0	4.3	4.3
270.	*	4.7	5.4	4.7	4.8
280.	*	4.3	5.0	5.4	5.5
290.	*	4.3	5.0	5.4	5.5
300.	*	4.3	5.0	5.3	5.4
310.	*	4.3	5.0	5.1	5.1
320.	*	4.3	5.1	5.0	5.4
330.	*	4.3	5.2	5.0	5.7
340.	*	4.3	5.6	5.1	6.1
350.	*	4.3	5.6	5.0	6.6
360.	*	5.2	4.7	5.9	5.6
MAX	*	6.4	6.0	6.7	6.6
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 6.74 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.74 X 0.6 = 4.04 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, No Project & SM, 2007

DATE : 1/ 6/ 5
TIME : 16:29:34

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360. AG	26.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360. AG	646.	5.5	.0	32.0		
3. nbq	512.0	464.0	512.0	460.4	4.	180. AG	154.	100.0	.0	24.0	.10	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180. AG	581.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180. AG	35.	5.5	.0	32.0		
6. sbq	482.0	536.0	482.0	1261.3	725.	360. AG	232.	100.0	.0	36.0	1.45	36.8
7. eba	.0	482.0	500.0	482.0	500.	90. AG	1975.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90. AG	2085.	5.5	.0	44.0		
9. ebq	464.0	482.0	438.8	482.0	25.	270. AG	32.	100.0	.0	36.0	.51	1.3
10. wba	1000.0	518.0	500.0	518.0	500.	270. AG	2324.	5.5	.0	56.0		
11. wbd	500.0	518.0	.0	518.0	500.	270. AG	2140.	5.5	.0	44.0		
12. wbq	524.0	518.0	553.6	518.0	30.	90. AG	32.	100.0	.0	36.0	.61	1.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, No Project & SM, 2007

DATE : 1/ 6/ 5
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ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	50	3.0	26	1600	34.53	3	3
6. sbq	60	50	3.0	581	1600	34.53	3	3
9. ebq	60	7	3.0	1975	1600	34.53	3	3
12. wbq	60	7	3.0	2324	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	556.0	5.0
2. NE	544.0	556.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, No Project & SM, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.1	4.7	5.9	5.5
10.	6.1	4.3	6.6	4.9
20.	5.8	4.3	5.9	4.9
30.	5.4	4.3	5.3	5.0
40.	5.3	4.3	5.0	5.0
50.	5.3	4.3	5.0	5.1
60.	5.2	4.3	5.2	5.2
70.	5.2	4.3	5.5	5.4
80.	5.1	4.3	5.5	5.4
90.	5.6	4.7	4.7	4.7
100.	6.3	5.4	4.3	4.3
110.	6.0	5.4	4.3	4.3
120.	5.6	5.3	4.3	4.3
130.	5.2	5.1	4.3	4.3
140.	5.2	5.0	4.3	4.3
150.	5.1	5.0	4.3	4.3
160.	4.9	5.0	4.3	4.3
170.	4.8	5.0	4.3	4.3
180.	4.8	5.0	4.3	4.3
190.	4.8	5.0	4.3	4.3
200.	4.9	5.0	4.3	4.3

210.	*	5.0	5.1	4.3	4.3
220.	*	5.0	5.1	4.3	4.3
230.	*	5.0	5.3	4.3	4.3
240.	*	5.1	5.5	4.3	4.3
250.	*	5.3	5.8	4.3	4.3
260.	*	5.3	6.1	4.3	4.3
270.	*	4.6	5.4	4.6	4.8
280.	*	4.3	5.0	5.3	5.4
290.	*	4.3	5.1	5.3	5.4
300.	*	4.3	5.1	5.2	5.2
310.	*	4.3	5.1	5.0	5.1
320.	*	4.3	5.2	5.0	5.3
330.	*	4.3	5.3	4.9	5.6
340.	*	4.3	5.5	4.9	6.0
350.	*	4.3	5.6	4.9	6.4
360.	*	5.1	4.7	5.9	5.5
MAX	*	6.3	6.1	6.6	6.4
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 6.64 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.64 X 0.6 = 3.98 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, PreferredProject,2007

DATE : 1/ 6/ 5
TIME : 17:38:52

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360. AG	25.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360. AG	573.	5.5	.0	32.0		
3. nbq	512.0	464.0	512.0	460.9	3.	180. AG	148.	100.0	.0	24.0	.06	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180. AG	785.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180. AG	19.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1448.4	900.	360. AG	222.	100.0	.0	36.0	1.40	45.7
7. eba	.0	482.0	500.0	482.0	500.	90. AG	2312.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90. AG	2676.	5.5	.0	44.0		
9. ebq	464.0	482.0	426.1	482.0	38.	270. AG	42.	100.0	.0	36.0	.63	1.9
10. wba	1000.0	524.0	500.0	524.0	500.	270. AG	2274.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270. AG	2128.	5.5	.0	44.0		
12. wbq	524.0	524.0	552.0	524.0	28.	90. AG	56.	100.0	.0	48.0	.46	1.4

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JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, PreferredProject,2007

DATE : 1/ 6/ 5
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ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	48	3.0	25	1600	34.53	3	3
6. sbq	60	48	3.0	785	1600	34.53	3	3
9. ebq	60	9	3.0	2312	1600	34.53	3	3
12. wbq	60	9	3.0	2274	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, PreferredProject,2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.2	4.8	6.0	5.7
10.	6.2	4.3	6.7	5.0
20.	5.7	4.3	5.9	5.0
30.	5.5	4.3	5.4	5.1
40.	5.4	4.3	5.1	5.1
50.	5.2	4.3	5.2	5.2
60.	5.2	4.3	5.4	5.3
70.	5.1	4.3	5.6	5.6
80.	5.1	4.3	5.7	5.5
90.	5.6	4.6	4.8	4.7
100.	6.2	5.4	4.3	4.3
110.	6.1	5.5	4.3	4.3
120.	5.7	5.2	4.3	4.3
130.	5.5	5.2	4.3	4.3
140.	5.1	5.0	4.3	4.3
150.	5.0	5.0	4.3	4.3
160.	5.0	4.9	4.3	4.3
170.	5.0	5.0	4.3	4.3
180.	5.0	5.1	4.3	4.3
190.	4.9	5.1	4.3	4.3
200.	4.9	5.3	4.3	4.3

210.	*	5.0	5.1	4.3	4.3
220.	*	5.0	5.1	4.3	4.3
230.	*	5.0	5.3	4.3	4.3
240.	*	5.2	5.6	4.3	4.3
250.	*	5.3	5.8	4.3	4.3
260.	*	5.2	5.9	4.3	4.3
270.	*	4.5	5.3	4.7	4.8
280.	*	4.3	5.0	5.4	5.4
290.	*	4.3	5.0	5.4	5.5
300.	*	4.3	5.0	5.2	5.3
310.	*	4.3	5.0	5.1	5.1
320.	*	4.3	5.1	5.0	5.3
330.	*	4.3	5.2	5.0	5.5
340.	*	4.3	5.6	5.1	6.0
350.	*	4.3	5.8	5.0	6.6
360.	*	5.2	4.8	6.0	5.7
MAX	*	6.2	5.9	6.7	6.6
DEGR.	*	10	260	10	350

THE HIGHEST CONCENTRATION OF 6.74 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.74 X 0.6 = 4.04 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, PrefProj & SM,2007

DATE : 1/ 6/ 5
TIME : 17:44:57

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	26.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	731.	5.5	.0	32.0		
3. nbq	512.0	464.0	512.0	460.5	3.	180.	AG	151.	100.0	.0	24.0	.08	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	657.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	35.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1282.3	734.	360.	AG	227.	100.0	.0	36.0	1.38	37.3
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	1997.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2142.	5.5	.0	44.0		
9. ebq	464.0	482.0	434.9	482.0	29.	270.	AG	37.	100.0	.0	36.0	.53	1.5
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2387.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	2159.	5.5	.0	44.0		
12. wbq	524.0	524.0	550.1	524.0	26.	90.	AG	49.	100.0	.0	48.0	.48	1.3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, PrefProj & SM,2007

DATE : 1/ 6/ 5
TIME : 17:44:57

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	49	3.0	26	1600	34.53	3	3
6. sbq	60	49	3.0	657	1600	34.53	3	3
9. ebq	60	8	3.0	1997	1600	34.53	3	3
12. wbq	60	8	3.0	2387	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, PrefProj & SM,2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.1	4.7	5.8	5.5
10.	6.1	4.3	6.5	4.9
20.	5.7	4.3	5.9	4.9
30.	5.5	4.3	5.2	5.0
40.	5.3	4.3	5.0	5.0
50.	5.2	4.3	5.1	5.1
60.	5.2	4.3	5.2	5.2
70.	5.1	4.3	5.5	5.4
80.	5.1	4.3	5.5	5.3
90.	5.5	4.6	4.7	4.6
100.	6.2	5.3	4.3	4.3
110.	6.0	5.4	4.3	4.3
120.	5.5	5.2	4.3	4.3
130.	5.4	5.1	4.3	4.3
140.	5.1	5.0	4.3	4.3
150.	5.0	4.9	4.3	4.3
160.	4.9	5.0	4.3	4.3
170.	4.8	5.0	4.3	4.3
180.	4.9	5.0	4.3	4.3
190.	4.8	5.0	4.3	4.3
200.	4.8	5.2	4.3	4.3

210.	*	4.9	5.0	4.3	4.3
220.	*	4.9	5.1	4.3	4.3
230.	*	5.0	5.2	4.3	4.3
240.	*	5.1	5.5	4.3	4.3
250.	*	5.3	5.8	4.3	4.3
260.	*	5.1	5.9	4.3	4.3
270.	*	4.5	5.3	4.6	4.8
280.	*	4.3	5.0	5.3	5.3
290.	*	4.3	5.0	5.3	5.4
300.	*	4.3	5.0	5.1	5.3
310.	*	4.3	5.0	5.0	5.1
320.	*	4.3	5.2	5.0	5.2
330.	*	4.3	5.3	4.9	5.6
340.	*	4.3	5.5	4.9	6.1
350.	*	4.3	5.7	4.9	6.6
360.	*	5.1	4.7	5.8	5.5
MAX	*	6.2	5.9	6.5	6.6
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 6.64 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 6.64 X 0.6 = 3.98 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Alt Project,2007

DATE : 1/ 6/ 5
TIME : 17:47:53

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360. AG	25.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360. AG	568.	5.5	.0	32.0		
3. nbq	512.0	464.0	512.0	460.8	3.	180. AG	151.	100.0	.0	24.0	.08	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180. AG	758.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180. AG	19.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1628.8	1081.	360. AG	227.	100.0	.0	36.0	1.58	54.9
7. eba	.0	482.0	500.0	482.0	500.	90. AG	2311.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90. AG	2656.	5.5	.0	44.0		
9. ebq	464.0	482.0	430.3	482.0	34.	270. AG	37.	100.0	.0	36.0	.61	1.7
10. wba	1000.0	524.0	500.0	524.0	500.	270. AG	2270.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270. AG	2121.	5.5	.0	44.0		
12. wbq	524.0	524.0	548.8	524.0	25.	90. AG	49.	100.0	.0	48.0	.45	1.3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Alt Project,2007

DATE : 1/ 6/ 5
TIME : 17:47:53

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	49	3.0	25	1600	34.53	3	3
6. sbq	60	49	3.0	758	1600	34.53	3	3
9. ebq	60	8	3.0	2311	1600	34.53	3	3
12. wbq	60	8	3.0	2270	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Alt Project,2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.4	4.9	6.1	5.7
10.	6.3	4.3	6.8	5.0
20.	5.7	4.3	5.9	5.0
30.	5.5	4.3	5.3	5.1
40.	5.4	4.3	5.1	5.1
50.	5.2	4.3	5.1	5.1
60.	5.2	4.3	5.4	5.3
70.	5.1	4.3	5.6	5.6
80.	5.1	4.3	5.7	5.5
90.	5.6	4.6	4.8	4.7
100.	6.2	5.4	4.3	4.3
110.	6.0	5.5	4.3	4.3
120.	5.6	5.2	4.3	4.3
130.	5.4	5.2	4.3	4.3
140.	5.1	5.0	4.3	4.3
150.	5.0	5.0	4.3	4.3
160.	5.0	4.9	4.3	4.3
170.	4.9	4.9	4.3	4.3
180.	5.0	5.1	4.3	4.3
190.	4.9	5.0	4.3	4.3
200.	4.9	5.3	4.3	4.3

210.	*	5.0	5.1	4.3	4.3
220.	*	5.0	5.1	4.3	4.3
230.	*	5.0	5.2	4.3	4.3
240.	*	5.2	5.6	4.3	4.3
250.	*	5.3	5.8	4.3	4.3
260.	*	5.2	5.9	4.3	4.3
270.	*	4.5	5.3	4.7	4.8
280.	*	4.3	5.0	5.4	5.4
290.	*	4.3	5.0	5.4	5.5
300.	*	4.3	5.0	5.2	5.3
310.	*	4.3	5.0	5.1	5.1
320.	*	4.3	5.1	5.0	5.3
330.	*	4.3	5.2	5.0	5.5
340.	*	4.3	5.6	5.1	6.0
350.	*	4.4	5.7	5.1	6.7
360.	*	5.4	4.9	6.1	5.7
MAX	*	6.3	5.9	6.8	6.7
DEGR.	*	10	260	10	350

THE HIGHEST CONCENTRATION OF 6.84 PPM OCCURRED AT RECEPTOR REC3.
THE 8-HOUR CO CONCENTRATION = 6.84 X 0.6 = 4.10

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Alt Proj & SM,2007

DATE : 1/ 6/ 5
TIME : 17:51:41

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	26.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	727.	5.5	.0	32.0		
3. nbq	512.0	464.0	512.0	460.5	3.	180.	AG	151.	100.0	.0	24.0	.08	.2
4. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	654.	5.5	.0	56.0		
5. sbd	482.0	500.0	482.0	.0	500.	180.	AG	35.	5.5	.0	32.0		
6. sbq	482.0	548.0	482.0	1271.8	724.	360.	AG	227.	100.0	.0	36.0	1.37	36.8
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	1996.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2140.	5.5	.0	44.0		
9. ebq	464.0	482.0	434.9	482.0	29.	270.	AG	37.	100.0	.0	36.0	.53	1.5
10. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2384.	5.5	.0	68.0		
11. wbd	500.0	524.0	.0	524.0	500.	270.	AG	2158.	5.5	.0	44.0		
12. wbq	524.0	524.0	550.1	524.0	26.	90.	AG	49.	100.0	.0	48.0	.48	1.3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Alt Proj & SM,2007

DATE : 1/ 6/ 5
TIME : 17:51:41

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	49	3.0	26	1600	34.53	3	3
6. sbq	60	49	3.0	654	1600	34.53	3	3
9. ebq	60	8	3.0	1996	1600	34.53	3	3
12. wbq	60	8	3.0	2384	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	544.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	544.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Cross Creek & PCH, Alt Proj & SM,2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.1	4.7	5.8	5.5
10.	6.1	4.3	6.5	4.9
20.	5.7	4.3	5.9	4.9
30.	5.5	4.3	5.2	5.0
40.	5.3	4.3	5.0	5.0
50.	5.2	4.3	5.1	5.1
60.	5.2	4.3	5.2	5.2
70.	5.1	4.3	5.5	5.4
80.	5.1	4.3	5.5	5.3
90.	5.5	4.6	4.7	4.6
100.	6.2	5.3	4.3	4.3
110.	5.9	5.4	4.3	4.3
120.	5.5	5.2	4.3	4.3
130.	5.4	5.1	4.3	4.3
140.	5.1	5.0	4.3	4.3
150.	5.0	4.9	4.3	4.3
160.	4.9	5.0	4.3	4.3
170.	4.8	5.0	4.3	4.3
180.	4.9	5.0	4.3	4.3
190.	4.8	5.0	4.3	4.3
200.	4.8	5.2	4.3	4.3

210.	*	4.9	5.0	4.3	4.3
220.	*	4.9	5.1	4.3	4.3
230.	*	5.0	5.2	4.3	4.3
240.	*	5.1	5.5	4.3	4.3
250.	*	5.3	5.8	4.3	4.3
260.	*	5.1	5.9	4.3	4.3
270.	*	4.5	5.3	4.6	4.8
280.	*	4.3	5.0	5.3	5.3
290.	*	4.3	5.0	5.3	5.4
300.	*	4.3	5.0	5.1	5.2
310.	*	4.3	5.0	5.0	5.1
320.	*	4.3	5.2	5.0	5.2
330.	*	4.3	5.3	4.9	5.5
340.	*	4.3	5.5	4.9	6.1
350.	*	4.3	5.7	4.9	6.6
360.	*	5.1	4.7	5.8	5.5
MAX	*	6.2	5.9	6.5	6.6
DEGR.	*	100	260	10	350

THE HIGHEST CONCENTRATION OF 6.64 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 6.64 X 0.6 = 3.98 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:35: 9

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	*	LENGTH (FT)	BRG	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nbd	*	500.0	500.0	500.0	1000.0	*	500.	360.	AG	379.	6.9	.0	32.0		
2. sba	*	482.0	1000.0	482.0	500.0	*	500.	180.	AG	1129.	6.9	.0	56.0		
3. sbq	*	482.0	548.0	482.0	1300.5	*	752.	360.	AG	255.	100.0	.0	36.0	1.18	38.2
4. eba	*	.0	482.0	500.0	482.0	*	500.	90.	AG	1764.	6.9	.0	56.0		
5. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90.	AG	2755.	6.9	.0	44.0		
6. ebq	*	464.0	482.0	419.0	482.0	*	45.	270.	AG	83.	100.0	.0	36.0	.54	2.3
7. wba	*	1000.0	524.0	500.0	524.0	*	500.	270.	AG	1862.	6.9	.0	68.0		
8. wbd	*	500.0	524.0	.0	524.0	*	500.	270.	AG	1621.	6.9	.0	56.0		
9. wbq	*	500.0	524.0	547.5	524.0	*	47.	90.	AG	83.	100.0	.0	36.0	.57	2.4

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:35: 9

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. sbq	*	60	43	3.0	1129	1600	44.30	3	3
6. ebq	*	60	14	3.0	1764	1600	44.30	3	3
9. wbq	*	60	14	3.0	1862	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. NW	*	444.0	568.0	5.0	*
2. NE	*	520.0	568.0	5.0	*
3. SW	*	444.0	444.0	5.0	*
4. SE	*	520.0	444.0	5.0	*

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Existing, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	6.4	6.6	7.3	7.8
10.	7.6	5.3	8.1	6.2
20.	7.1	5.3	7.1	6.2
30.	6.8	5.3	6.5	6.2
40.	6.6	5.3	6.5	6.3
50.	6.5	5.3	6.2	6.3
60.	6.4	5.3	6.5	6.5
70.	6.3	5.3	6.8	6.8
80.	6.3	5.3	7.0	6.8
90.	6.8	5.6	6.0	5.9
100.	7.6	6.5	5.3	5.3
110.	7.5	6.6	5.3	5.3
120.	7.1	6.4	5.3	5.3
130.	7.0	6.3	5.3	5.3
140.	6.5	6.2	5.3	5.3
150.	6.1	6.2	5.3	5.3
160.	6.0	6.3	5.3	5.3
170.	6.0	6.3	5.3	5.3
180.	6.1	6.3	5.3	5.3
190.	5.9	6.4	5.3	5.3
200.	6.0	6.4	5.3	5.3
210.	5.9	6.5	5.3	5.3
220.	6.0	6.6	5.3	5.3
230.	6.0	6.8	5.3	5.3
240.	6.2	6.7	5.3	5.3

250.	*	6.3	7.2	5.3	5.3
260.	*	6.1	7.3	5.3	5.3
270.	*	5.5	6.6	5.6	5.7
280.	*	5.3	6.3	6.4	6.5
290.	*	5.3	6.3	6.4	6.6
300.	*	5.3	6.4	6.2	6.3
310.	*	5.3	6.5	6.1	6.2
320.	*	5.3	6.6	6.1	6.1
330.	*	5.3	6.8	6.2	6.3
340.	*	5.3	7.2	6.2	7.1
350.	*	5.3	7.7	6.0	8.4
360.	*	6.4	6.6	7.3	7.8
MAX	*	7.6	7.7	8.1	8.4
DEGR.	*	10	350	10	350

THE HIGHEST CONCENTRATION OF 8.43 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 8.43 X 0.6 = 5.05 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:36: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nbd	500.0	500.0	500.0	1000.0	500.	360. AG	407.	5.5	.0	32.0		
2. sba	482.0	1000.0	482.0	500.0	500.	180. AG	1221.	5.5	.0	56.0		
3. sbq	482.0	548.0	482.0	1884.3	1336.	360. AG	204.	100.0	.0	36.0	1.39	67.9
4. eba	.0	482.0	500.0	482.0	500.	90. AG	1902.	5.5	.0	56.0		
5. ebd	500.0	482.0	1000.0	482.0	500.	90. AG	2926.	5.5	.0	44.0		
6. ebq	464.0	482.0	418.9	482.0	45.	270. AG	60.	100.0	.0	36.0	.57	2.3
7. wba	1000.0	524.0	500.0	524.0	500.	270. AG	2056.	5.5	.0	68.0		
8. wbd	500.0	524.0	.0	524.0	500.	270. AG	1846.	5.5	.0	56.0		
9. wbq	500.0	524.0	548.7	524.0	49.	90. AG	60.	100.0	.0	36.0	.61	2.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:36: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. sbq	60	44	3.0	1221	1600	34.53	3	3
6. ebq	60	13	3.0	1902	1600	34.53	3	3
9. wbq	60	13	3.0	2056	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	520.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	520.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, No Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.5	5.6	6.2	6.4
10.	6.2	4.4	6.8	5.2
20.	5.8	4.3	5.8	5.2
30.	5.5	4.3	5.4	5.1
40.	5.4	4.3	5.1	5.2
50.	5.3	4.3	5.2	5.2
60.	5.2	4.3	5.2	5.4
70.	5.2	4.3	5.6	5.5
80.	5.2	4.3	5.8	5.6
90.	5.6	4.6	4.9	4.7
100.	6.3	5.3	4.3	4.3
110.	6.3	5.4	4.3	4.3
120.	6.0	5.3	4.3	4.3
130.	5.6	5.1	4.3	4.3
140.	5.3	5.2	4.3	4.3
150.	5.1	5.0	4.3	4.3
160.	4.9	5.1	4.3	4.3
170.	5.0	5.1	4.3	4.3
180.	4.9	5.1	4.3	4.3
190.	4.9	5.3	4.3	4.3
200.	4.8	5.2	4.3	4.3
210.	4.8	5.2	4.3	4.3
220.	4.8	5.3	4.3	4.3
230.	5.0	5.5	4.3	4.3
240.	5.0	5.6	4.3	4.3

250.	*	5.1	6.0	4.3	4.3
260.	*	5.1	6.1	4.3	4.3
270.	*	4.5	5.4	4.6	4.6
280.	*	4.3	5.2	5.2	5.3
290.	*	4.3	5.2	5.3	5.4
300.	*	4.3	5.2	5.1	5.1
310.	*	4.3	5.3	5.0	5.1
320.	*	4.3	5.4	5.0	5.0
330.	*	4.3	5.5	4.9	5.2
340.	*	4.3	5.9	5.0	6.0
350.	*	4.4	6.3	5.1	7.1
360.	*	5.5	5.6	6.2	6.4
MAX	*	6.3	6.3	6.8	7.1
DEGR.	*	100	350	10	350

THE HIGHEST CONCENTRATION OF 7.14 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 7.14 X 0.6 = 4.28 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Preferred Project, 2007

DATE : 1/ 6/ 5
TIME : 16:36:48

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nbd	500.0	500.0	500.0	1000.0	500.	360.	AG	408.	5.5	.0	32.0		
2. sba	482.0	1000.0	482.0	500.0	500.	180.	AG	1227.	5.5	.0	56.0		
3. sbq	482.0	548.0	482.0	1905.1	1357.	360.	AG	204.	100.0	.0	36.0	1.40	68.9
4. eba	.0	482.0	500.0	482.0	500.	90.	AG	1906.	5.5	.0	56.0		
5. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	2929.	5.5	.0	44.0		
6. ebq	464.0	482.0	418.9	482.0	45.	270.	AG	60.	100.0	.0	36.0	.57	2.3
7. wba	1000.0	524.0	500.0	524.0	500.	270.	AG	2070.	5.5	.0	68.0		
8. wbd	500.0	524.0	.0	524.0	500.	270.	AG	1866.	5.5	.0	56.0		
9. wbq	500.0	524.0	549.0	524.0	49.	90.	AG	60.	100.0	.0	36.0	.62	2.5

PAGE 2

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Preferred Project, 2007

DATE : 1/ 6/ 5
TIME : 16:36:48

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. sbq	60	44	3.0	1227	1600	34.53	3	3
6. ebq	60	13	3.0	1906	1600	34.53	3	3
9. wbq	60	13	3.0	2070	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	444.0	568.0	5.0
2. NE	520.0	568.0	5.0
3. SW	444.0	444.0	5.0
4. SE	520.0	444.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Preferred Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.5	5.6	6.2	6.4
10.	6.2	4.4	6.8	5.2
20.	5.8	4.3	5.8	5.2
30.	5.5	4.3	5.4	5.1
40.	5.4	4.3	5.1	5.2
50.	5.3	4.3	5.2	5.2
60.	5.2	4.3	5.2	5.4
70.	5.2	4.3	5.6	5.5
80.	5.2	4.3	5.8	5.6
90.	5.6	4.6	4.9	4.7
100.	6.3	5.3	4.3	4.3
110.	6.3	5.4	4.3	4.3
120.	6.0	5.3	4.3	4.3
130.	5.6	5.1	4.3	4.3
140.	5.3	5.2	4.3	4.3
150.	5.1	5.0	4.3	4.3
160.	4.9	5.1	4.3	4.3
170.	5.0	5.1	4.3	4.3
180.	4.9	5.1	4.3	4.3
190.	4.9	5.3	4.3	4.3
200.	4.8	5.2	4.3	4.3
210.	4.8	5.2	4.3	4.3
220.	4.8	5.3	4.3	4.3
230.	5.0	5.5	4.3	4.3
240.	5.0	5.6	4.3	4.3

250.	*	5.1	6.0	4.3	4.3
260.	*	5.1	6.1	4.3	4.3
270.	*	4.5	5.4	4.6	4.6
280.	*	4.3	5.2	5.2	5.3
290.	*	4.3	5.2	5.3	5.4
300.	*	4.3	5.2	5.1	5.1
310.	*	4.3	5.3	5.0	5.1
320.	*	4.3	5.4	5.0	5.0
330.	*	4.3	5.5	4.9	5.2
340.	*	4.3	5.9	5.0	6.0
350.	*	4.4	6.3	5.1	7.1
360.	*	5.5	5.6	6.2	6.4
MAX	*	6.3	6.3	6.8	7.1
DEGR.	*	100	350	10	350

THE HIGHEST CONCENTRATION OF 7.14 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 7.14 X 0.6 = 4.28 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Alternative Project, 2007

DATE : 1/ 6/ 5
TIME : 16:37:44

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT) X1	Y1	X2	Y2	*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nbd	*	500.0	500.0	500.0	1000.0	*	500.	360. AG	408.	5.5	.0	32.0		
2. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1224.	5.5	.0	56.0		
3. sbq	*	482.0	548.0	482.0	1894.7	*	1347.	360. AG	204.	100.0	.0	36.0	1.39	68.4
4. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1905.	5.5	.0	56.0		
5. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	2928.	5.5	.0	44.0		
6. ebq	*	464.0	482.0	418.9	482.0	*	45.	270. AG	60.	100.0	.0	36.0	.57	2.3
7. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2064.	5.5	.0	68.0		
8. wbd	*	500.0	524.0	.0	524.0	*	500.	270. AG	1857.	5.5	.0	56.0		
9. wbq	*	500.0	524.0	548.9	524.0	*	49.	90. AG	60.	100.0	.0	36.0	.61	2.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Alternative Project, 2007

DATE : 1/ 6/ 5
TIME : 16:37:44

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. sbq	*	60	44	3.0	1224	1600	34.53	3	3
6. ebq	*	60	13	3.0	1905	1600	34.53	3	3
9. wbq	*	60	13	3.0	2064	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. NW	*	444.0	568.0	5.0	*
2. NE	*	520.0	568.0	5.0	*
3. SW	*	444.0	444.0	5.0	*
4. SE	*	520.0	444.0	5.0	*

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Top Cyn & PCH, Alternative Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	* 5.5	5.6	6.2	6.4
10.	* 6.2	4.4	6.8	5.2
20.	* 5.8	4.3	5.8	5.2
30.	* 5.5	4.3	5.4	5.1
40.	* 5.4	4.3	5.1	5.2
50.	* 5.3	4.3	5.2	5.2
60.	* 5.2	4.3	5.2	5.4
70.	* 5.2	4.3	5.6	5.5
80.	* 5.2	4.3	5.8	5.6
90.	* 5.6	4.6	4.9	4.7
100.	* 6.3	5.3	4.3	4.3
110.	* 6.3	5.4	4.3	4.3
120.	* 6.0	5.3	4.3	4.3
130.	* 5.6	5.1	4.3	4.3
140.	* 5.3	5.2	4.3	4.3
150.	* 5.1	5.0	4.3	4.3
160.	* 4.9	5.1	4.3	4.3
170.	* 5.0	5.1	4.3	4.3
180.	* 4.9	5.1	4.3	4.3
190.	* 4.9	5.3	4.3	4.3
200.	* 4.8	5.2	4.3	4.3
210.	* 4.8	5.2	4.3	4.3
220.	* 4.8	5.3	4.3	4.3
230.	* 5.0	5.5	4.3	4.3
240.	* 5.0	5.6	4.3	4.3

250.	*	5.1	6.0	4.3	4.3
260.	*	5.1	6.1	4.3	4.3
270.	*	4.5	5.4	4.6	4.6
280.	*	4.3	5.2	5.2	5.3
290.	*	4.3	5.2	5.3	5.4
300.	*	4.3	5.2	5.1	5.1
310.	*	4.3	5.3	5.0	5.1
320.	*	4.3	5.4	5.0	5.0
330.	*	4.3	5.5	4.9	5.2
340.	*	4.3	5.9	5.0	6.0
350.	*	4.4	6.3	5.1	7.1
360.	*	5.5	5.6	6.2	6.4
MAX	*	6.3	6.3	6.8	7.1
DEGR.	*	100	350	10	350

THE HIGHEST CONCENTRATION OF 7.14 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 7.14 X 0.6 = 4.28 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:31: 0

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 5.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360.	AG	625.	6.9	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360.	AG	28.	6.9	.0	32.0		
3. nbq	512.0	476.0	512.0	419.7	56.	180.	AG	131.	100.0	.0	24.0	.53	2.9
4. sba	494.0	1000.0	494.0	500.0	500.	180.	AG	63.	6.9	.0	32.0		
5. sbd	494.0	500.0	494.0	.0	500.	180.	AG	529.	6.9	.0	32.0		
6. sbq	494.0	524.0	494.0	535.4	11.	360.	AG	65.	100.0	.0	12.0	.11	.6
7. eba	.0	488.0	500.0	488.0	500.	90.	AG	531.	6.9	.0	44.0		
8. ebd	500.0	488.0	1000.0	488.0	500.	90.	AG	263.	6.9	.0	32.0		
9. ebq	488.0	488.0	453.2	488.0	35.	270.	AG	95.	100.0	.0	24.0	.32	1.8
10. wba	1000.0	512.0	500.0	512.0	500.	270.	AG	446.	6.9	.0	44.0		
11. wbd	500.0	512.0	.0	512.0	500.	270.	AG	845.	6.9	.0	32.0		
12. wbq	524.0	512.0	553.3	512.0	29.	90.	AG	95.	100.0	.0	24.0	.27	1.5

PAGE 2

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, Existing, 2004

DATE : 1/ 6/ 5
TIME : 16:31: 0

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	33	3.0	625	1600	44.30	3	3
6. sbq	60	33	3.0	63	1600	44.30	3	3
9. ebq	60	24	3.0	531	1600	44.30	3	3
12. wbq	60	24	3.0	446	1600	44.30	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	468.0	544.0	5.0
2. NE	544.0	544.0	5.0
3. SW	468.0	456.0	5.0
4. SE	544.0	456.0	5.0

PAGE 3

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, Existing, 2004

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	5.3	5.3	5.8	5.7
10.	5.3	5.3	5.8	5.6
20.	5.3	5.3	5.8	5.5
30.	5.3	5.3	5.8	5.5
40.	5.3	5.3	5.9	5.5
50.	5.3	5.3	5.8	5.5
60.	5.3	5.3	5.9	5.5
70.	5.3	5.3	5.9	5.5
80.	5.3	5.3	6.0	5.5
90.	5.4	5.4	5.9	5.4
100.	5.7	5.6	5.8	5.3
110.	5.8	5.6	5.8	5.3
120.	5.7	5.5	5.8	5.3
130.	5.7	5.5	5.7	5.3
140.	5.6	5.4	5.7	5.3
150.	6.0	5.4	5.7	5.3
160.	6.4	5.5	5.7	5.3
170.	6.4	5.6	5.8	5.3
180.	6.1	6.0	5.5	5.4
190.	5.8	6.4	5.3	5.8
200.	5.7	6.3	5.3	5.8

210.	*	5.6	5.9	5.3	5.7
220.	*	5.6	5.8	5.3	5.8
230.	*	5.6	5.7	5.3	6.0
240.	*	5.7	5.8	5.3	5.9
250.	*	5.8	5.9	5.3	5.9
260.	*	5.8	6.0	5.3	5.9
270.	*	5.5	5.5	5.5	6.1
280.	*	5.3	5.3	5.8	6.5
290.	*	5.3	5.3	5.7	6.4
300.	*	5.3	5.3	5.7	6.1
310.	*	5.3	5.3	5.6	5.7
320.	*	5.3	5.3	5.5	5.6
330.	*	5.3	5.3	5.6	5.6
340.	*	5.3	5.3	5.7	5.7
350.	*	5.3	5.3	5.7	5.7
360.	*	5.3	5.3	5.8	5.7
MAX	*	6.4	6.4	6.0	6.5
DEGR.	*	160	190	80	280

THE HIGHEST CONCENTRATION OF 6.53 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 6.53 X 0.6 = 3.92 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:31:53

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	512.0	.0	512.0	500.0	500.	360. AG	812.	5.5	.0	44.0		
2. nbd	512.0	500.0	512.0	1000.0	500.	360. AG	167.	5.5	.0	32.0		
3. nbq	512.0	476.0	512.0	411.6	64.	180. AG	90.	100.0	.0	24.0	.59	3.3
4. sba	494.0	1000.0	494.0	500.0	500.	180. AG	367.	5.5	.0	32.0		
5. sbd	494.0	500.0	494.0	.0	500.	180. AG	862.	5.5	.0	32.0		
6. sbq	494.0	524.0	494.0	582.2	58.	360. AG	45.	100.0	.0	12.0	.53	3.0
7. eba	.0	488.0	500.0	488.0	500.	90. AG	615.	5.5	.0	44.0		
8. ebd	500.0	488.0	1000.0	488.0	500.	90. AG	383.	5.5	.0	32.0		
9. ebq	488.0	488.0	441.0	488.0	47.	270. AG	86.	100.0	.0	24.0	.43	2.4
10. wba	1000.0	512.0	500.0	512.0	500.	270. AG	645.	5.5	.0	44.0		
11. wbd	500.0	512.0	.0	512.0	500.	270. AG	1027.	5.5	.0	32.0		
12. wbq	524.0	512.0	573.3	512.0	49.	90. AG	86.	100.0	.0	24.0	.45	2.5

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, No Project, 2007

DATE : 1/ 6/ 5
TIME : 16:31:53

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	29	3.0	812	1600	34.53	3	3
6. sbq	60	29	3.0	367	1600	34.53	3	3
9. ebq	60	28	3.0	615	1600	34.53	3	3
12. wbq	60	28	3.0	645	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	468.0	544.0	5.0
2. NE	544.0	544.0	5.0
3. SW	468.0	456.0	5.0
4. SE	544.0	456.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, No Project, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.4	4.3	4.8	4.7
10.	4.5	4.3	4.9	4.7
20.	4.4	4.3	5.0	4.7
30.	4.5	4.3	4.8	4.6
40.	4.5	4.3	5.0	4.5
50.	4.5	4.3	4.9	4.5
60.	4.5	4.3	5.1	4.5
70.	4.5	4.3	5.0	4.6
80.	4.5	4.3	5.0	4.5
90.	4.6	4.4	4.9	4.4
100.	5.0	4.7	4.7	4.3
110.	5.0	4.6	4.7	4.3
120.	4.8	4.6	4.8	4.3
130.	4.8	4.6	4.8	4.3
140.	4.7	4.7	4.8	4.3
150.	5.0	4.7	4.7	4.3
160.	5.3	4.7	4.8	4.3
170.	5.6	4.6	4.9	4.3
180.	5.1	4.9	4.6	4.6
190.	4.8	5.3	4.3	4.8
200.	4.8	5.3	4.3	4.8

210.	*	4.7	5.0	4.3	4.8
220.	*	4.6	4.8	4.3	4.8
230.	*	4.6	4.8	4.3	4.9
240.	*	4.6	4.8	4.3	4.8
250.	*	4.7	4.9	4.3	4.8
260.	*	4.8	5.0	4.3	4.7
270.	*	4.5	4.6	4.4	4.9
280.	*	4.3	4.4	4.7	5.2
290.	*	4.3	4.5	4.7	5.3
300.	*	4.3	4.5	4.7	5.1
310.	*	4.3	4.4	4.7	4.8
320.	*	4.3	4.4	4.7	4.6
330.	*	4.3	4.4	4.7	4.8
340.	*	4.3	4.4	4.7	4.9
350.	*	4.3	4.5	4.7	4.9
360.	*	4.4	4.3	4.8	4.7
MAX	*	5.6	5.3	5.1	5.3
DEGR.	*	170	190	60	290

THE HIGHEST CONCENTRATION OF 5.64 PPM OCCURRED AT RECEPTOR REC1.
THE 8-HOUR CO CONCENTRATION = 5.64 X 0.6 = 3.38 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, PreProj, 2007

DATE : 1/ 6/ 5
TIME : 17:58:33

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	518.0	.0	518.0	500.0	500.	360.	AG	844.	5.5	.0	56.0		
2. nbd	518.0	500.0	518.0	1000.0	500.	360.	AG	167.	5.5	.0	32.0		
3. nbq	518.0	464.0	518.0	417.9	46.	180.	AG	139.	100.0	.0	36.0	.42	2.3
4. sba	488.0	1000.0	488.0	500.0	500.	180.	AG	367.	5.5	.0	44.0		
5. sbd	488.0	500.0	488.0	.0	500.	180.	AG	926.	5.5	.0	32.0		
6. sbq	488.0	524.0	488.0	554.0	30.	360.	AG	93.	100.0	.0	24.0	.27	1.5
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	631.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	431.	5.5	.0	32.0		
9. ebq	476.0	482.0	445.0	482.0	31.	270.	AG	125.	100.0	.0	36.0	.28	1.6
10. wba	1000.0	512.0	500.0	512.0	500.	270.	AG	741.	5.5	.0	44.0		
11. wbd	500.0	512.0	.0	512.0	500.	270.	AG	1059.	5.5	.0	32.0		
12. wbq	536.0	512.0	590.6	512.0	55.	90.	AG	83.	100.0	.0	24.0	.50	2.8

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, PreProj, 2007

DATE : 1/ 6/ 5
TIME : 17:58:33

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	30	3.0	844	1600	34.53	3	3
6. sbq	60	30	3.0	367	1600	34.53	3	3
9. ebq	60	27	3.0	631	1600	34.53	3	3
12. wbq	60	27	3.0	741	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	456.0	544.0	5.0
2. NE	556.0	544.0	5.0
3. SW	456.0	444.0	5.0
4. SE	556.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, PreProj, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.4	4.3	4.9	4.7
10.	4.4	4.3	5.0	4.7
20.	4.4	4.3	5.1	4.6
30.	4.4	4.3	4.9	4.6
40.	4.4	4.3	4.8	4.5
50.	4.4	4.3	4.9	4.5
60.	4.4	4.3	5.0	4.5
70.	4.5	4.3	4.9	4.6
80.	4.6	4.3	5.0	4.5
90.	4.9	4.4	4.9	4.3
100.	5.2	4.7	4.8	4.3
110.	5.1	4.6	4.8	4.3
120.	5.0	4.6	4.7	4.3
130.	5.0	4.7	4.6	4.3
140.	4.9	4.7	4.6	4.3
150.	5.1	4.8	4.7	4.3
160.	5.2	4.7	4.8	4.3
170.	5.3	4.7	4.8	4.3
180.	5.2	4.9	4.4	4.4
190.	4.7	5.3	4.3	4.7
200.	4.6	5.3	4.3	4.8

210.	*	4.6	5.2	4.3	4.7
220.	*	4.6	4.7	4.3	4.7
230.	*	4.6	4.7	4.3	4.8
240.	*	4.7	4.7	4.3	4.8
250.	*	4.7	4.9	4.3	4.9
260.	*	4.8	4.9	4.3	4.9
270.	*	4.5	4.7	4.4	5.0
280.	*	4.3	4.4	4.7	5.4
290.	*	4.3	4.3	4.7	5.3
300.	*	4.3	4.3	4.7	5.1
310.	*	4.3	4.3	4.6	4.8
320.	*	4.3	4.4	4.5	4.8
330.	*	4.3	4.4	4.5	4.8
340.	*	4.3	4.4	4.6	4.8
350.	*	4.3	4.5	4.8	4.8
360.	*	4.4	4.3	4.9	4.7
MAX	*	5.3	5.3	5.1	5.4
DEGR.	*	170	190	20	280

THE HIGHEST CONCENTRATION OF 5.44 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 5.44 X 0.6 = 3.26 PPM.

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, Alt Proj, 2007

DATE : 1/ 6/ 5
TIME : 18: 2:56

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 4.3 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. nba	518.0	.0	518.0	500.0	500.	360.	AG	841.	5.5	.0	56.0		
2. nbd	518.0	500.0	518.0	1000.0	500.	360.	AG	167.	5.5	.0	32.0		
3. nbq	518.0	464.0	518.0	418.1	46.	180.	AG	139.	100.0	.0	36.0	.42	2.3
4. sba	488.0	1000.0	488.0	500.0	500.	180.	AG	367.	5.5	.0	44.0		
5. sbd	488.0	500.0	488.0	.0	500.	180.	AG	911.	5.5	.0	32.0		
6. sbq	488.0	524.0	488.0	554.0	30.	360.	AG	93.	100.0	.0	24.0	.27	1.5
7. eba	.0	482.0	500.0	482.0	500.	90.	AG	630.	5.5	.0	56.0		
8. ebd	500.0	482.0	1000.0	482.0	500.	90.	AG	427.	5.5	.0	32.0		
9. ebq	476.0	482.0	445.0	482.0	31.	270.	AG	125.	100.0	.0	36.0	.28	1.6
10. wba	1000.0	512.0	500.0	512.0	500.	270.	AG	718.	5.5	.0	44.0		
11. wbd	500.0	512.0	.0	512.0	500.	270.	AG	1051.	5.5	.0	32.0		
12. wbq	536.0	512.0	589.0	512.0	53.	90.	AG	83.	100.0	.0	24.0	.48	2.7

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, Alt Proj, 2007

DATE : 1/ 6/ 5
TIME : 18: 2:56

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	60	30	3.0	841	1600	34.53	3	3
6. sbq	60	30	3.0	367	1600	34.53	3	3
9. ebq	60	27	3.0	630	1600	34.53	3	3
12. wbq	60	27	3.0	718	1600	34.53	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. NW	456.0	544.0	5.0
2. NE	556.0	544.0	5.0
3. SW	456.0	444.0	5.0
4. SE	556.0	444.0	5.0

JOB: C:\sa_temp\CAL3QHC Runs\Malibu Lapaz\Cal RUN: Webb Wy & Civic Ctr Wy, Alt Proj, 2007

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	4.4	4.3	4.9	4.7
10.	4.4	4.3	5.0	4.7
20.	4.4	4.3	5.1	4.6
30.	4.4	4.3	4.9	4.6
40.	4.4	4.3	4.8	4.5
50.	4.4	4.3	4.9	4.5
60.	4.4	4.3	5.0	4.5
70.	4.5	4.3	4.9	4.5
80.	4.6	4.3	5.0	4.5
90.	4.9	4.4	4.9	4.3
100.	5.2	4.7	4.8	4.3
110.	5.1	4.6	4.7	4.3
120.	5.0	4.6	4.7	4.3
130.	5.0	4.7	4.6	4.3
140.	4.9	4.7	4.6	4.3
150.	5.1	4.7	4.7	4.3
160.	5.2	4.7	4.8	4.3
170.	5.3	4.7	4.8	4.3
180.	5.2	4.9	4.4	4.4
190.	4.7	5.3	4.3	4.7
200.	4.6	5.3	4.3	4.8

210.	*	4.6	5.2	4.3	4.7
220.	*	4.6	4.7	4.3	4.7
230.	*	4.6	4.7	4.3	4.8
240.	*	4.7	4.7	4.3	4.8
250.	*	4.7	4.9	4.3	4.9
260.	*	4.8	4.9	4.3	4.9
270.	*	4.5	4.7	4.4	5.0
280.	*	4.3	4.4	4.7	5.4
290.	*	4.3	4.3	4.7	5.3
300.	*	4.3	4.3	4.7	5.1
310.	*	4.3	4.3	4.6	4.8
320.	*	4.3	4.4	4.5	4.8
330.	*	4.3	4.4	4.5	4.8
340.	*	4.3	4.4	4.6	4.8
350.	*	4.3	4.5	4.8	4.8
360.	*	4.4	4.3	4.9	4.7
MAX	*	5.3	5.3	5.1	5.4
DEGR.	*	170	190	20	280

THE HIGHEST CONCENTRATION OF 5.44 PPM OCCURRED AT RECEPTOR REC4.
THE 8-HOUR CO CONCENTRATION = 5.44 X 0.6 = 3.26 PPM.

APPENDIX D

Construction Emissions Calculations

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

DATE	October 26, 2004
PROJECT NAME	Malibu - La Paz Proposed Project
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	70
SITE AREA (ACRES)	15.29
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	1.0
DEPTH OF EXCAVATION (Feet)	20.45
SURFACE AREA OF EXCAVATION IN SF	32,800
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	100
SIZE OF FOUNDATION SLAB IN SF	196,535
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	25
SF NON-RESIDENTIAL USE	130,935
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	-
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	3.4
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

EMFAC2002 v.2.08 (grams per mile)					
Vehicle Type	**CO**	**ROG**	**NO_2**	**SO_2**	**PM_{10}**
Haul Truck	7.385	0.81	11.211	0.14	0.344
Worker Vehicle	4.785	0.191	0.508	0.004	0.033
Assumptions:					
Construction Year	2005				
Season	Winter				
Temperature	60°F				
Speed	30 mph				

EQUIPMENT EMISSION FACTORS (pounds per hour)					
Equipment Type	**CO**	**ROG**	**NO_2**	**SO_2**	**PM^{10}**
Crane/Dozer	0.675	0.15	1.7	0.143	0.14
Source: Table A9-8-A, SCAQMD CEQA Handbook					

OTHER EMISSION FACTORS		
ROG from Architectural Coating (with 25% transfer efficiency)	18.5	lb/1,000 ft^2
ROG from Architectural Coating (with 65% transfer efficiency)	4.62	lb/1,000 ft^2
Dry Film Thickness	17.5	Mils
Source: Table A9-10 and **A9-13**, SCAQMD CEQA Handbook		

PAVED ROAD PM10 EMISSIONS (per VMT)		
	PM^{10} / VMT	
Road Type	**Worker Vehicle**	**Haul Truck**
Local Street	0.018000	0.2139583
Major Street/Highway	0.006400	0.1490958
Freeway	0.000650	0.0621706
Composite Factor**	**0.004110**	**0.0947344**
Source: Tables A9-9-B-1 and **A9-9-C**, SCAQMD CEQA Handbook ****Note:** Weighted average based on travel characteristics		

HAUL TRUCK ON UNPAVED SURFACE EMISSIONS
FORMULA: E = V x F WHERE: E = Emissions V = Vehicle Miles of Travel F = Emissions Factor (2.1)(G/12)(H/30)((J/3)^0.7)((I/4)^0.5)((365-K)/365)
VARIABLES G = Surface silt loading in percent H = Mean vehicle speed in miles per hour I = Mean number of wheels on vehicles J = Mean vehicle weight in tons K = Mean number of days per year with at least 0.01 inches of precipitation
EMISSIONS FACTOR = 5.55 pounds per vehicle miles traveled
Source: Table A9-9-D, SCAQMD CEQA Handbook

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)					
Malibu - La Paz Proposed Project					
CONSTRUCTION PHASE	**CO**	**ROG**	**NO_2**	**SO_2**	**PM^{10} (with Rule 403)**
GRADING/EXCAVATION	25	4	49	3	98
FOUNDATION	11	2	18	1.21	18
FINISHING	4.5	13.7	0.5	0.0	0.0
MAXIMUM	**25**	**14**	**49**	**3**	**98**
SCAQMD THRESHOLD	**550**	**75**	**100**	**150**	**150**
EXCEED THRESHOLD?	**NO**	**NO**	**NO**	**NO**	**NO**
SOURCE: TERRY A. HAYES ASSOCIATES LLC.					

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM^{10}
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	3.4	709,799	86.11
Note: Calculation formulas are located in **Tables A9-9-F and 9-9-G** of the SCAQMD CEQA Handbook						

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM^{10}
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	3.4	709,799	15.96
Note: Calculation formulas are located in **Tables A9-9-F and 9-9-G** of the SCAQMD CEQA Handbook						

Activity Emissions	Daily VMT	Emissions Factor	PM^{10}	PM^{10} (with Rule 403)
Haul Truck on Unpaved Surface	3.92	5.55	21.75	10.88

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM^{10}
Dozer/Shovel	3	8	14.21	3.16	35.79	3.01	2.95

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM^{10}
Haul Trucks	507	8.25	0.90	12.52	0.15	48.41
Worker Vehicles	268	2.82	0.11	0.30	0.00	1.12

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	14.21	3.16	35.79	3.01	209.85
Daily Mobile Emissions	11.07	1.02	12.82	0.16	49.54
TOTAL	**25.28**	**4.18**	**48.61**	**3.17**	**259.38**

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	14.21	3.16	35.79	3.01	48.14
Daily Mobile Emissions	11.07	1.02	12.82	0.16	49.54
TOTAL	**25.28**	**4.18**	**48.61**	**3.17**	**97.67**

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS	
Total Earth Export/Import CY	24,843
Total Haul Truck Trips @ 14.00 CY	1,774
Total Earth Export/Import Weight (in tons)	24,843
Daily Earth Export/Import CY	355
Daily Haul Truck Trips @ 14.00 CY	25
Daily Earth Export/Import Weight (in tons)	355
Haul Truck VMT on Unpaved Surface	3.92
HDV Off Site VMT	507
Total Work Crew Size	18
Number of Work Crew Vehicles @ 1.1 AVR	17
Work Crew Vehicle VMT - Local (miles)	268
EQUIPMENT NEEDED FOR GRADING	
Site Area in Acres	15.29
Grading Average Depth	1.00
Cubic Yards Graded	24,668
CY Graded/Day	352.40
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.63
EQUIPMENT NEEDED FOR EXCAVATION	
CY Exported/Imported	24,843
CY Exported/Imported per Day	355
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00
TOTAL EQUIPMENT NEEDED	2.63

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM^{10}
Idling Cement Trucks	1.01	8	5.46	1.21	13.75	1.16	1.13

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM^{10}
Cement Trucks	161.76	2.63	0.29	3.99	0.05	15.45
Worker Vehicles	268.00	2.82	0.11	0.30	0.00	1.12

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	5.46	1.21	13.75	1.16	1.13
Daily Mobile Emissions	5.46	0.40	4.29	0.05	16.57
TOTAL	**10.92**	**1.61**	**18.04**	**1.21**	**17.70**

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	196,535
CY of Cement Required	7,279
No. of Cement Haul Loads @ 9CY/Load	809
Labor Hours Required	14,740
Total Worker Requirement	18
Number of Work Crew Vehicles @ 1.1 AVR	17
Number of Cement Loads per Day	8.09
Cement Loads Per Hour	1.01
CF/Day Poured	1,965.35
CY/Day Poured	72.79
HDV Off Site VMT	161.76
Work Crew Vehicle VMT	268.00

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM^{10}
Architectural Coating-Nonresidential	Exterior Wall	10,475	-	3.39	-	-	-
	Interior Wall	31,424	-	10.17	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
TOTAL			**0.00**	**13.56**	**0.00**	**0.00**	**0.00**

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM^{10}
Architectural Coating	Exterior Wall	10,475	-	0.85	-	-	-
	Interior Wall	31,424	-	2.54	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
TOTAL			**0.00**	**3.39**	**0.00**	**0.00**	**0.00**

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM^{10}
Worker Vehicles	426	4.49	0.18	0.48	0.004	0.031

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	0.00	13.56	0.00	0.00	0.00
Daily Mobile Emissions	4.49	0.18	0.48	0.004	0.031
TOTAL	**4.49**	**13.74**	**0.48**	**0.004**	**0.031**

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	0.00	3.39	0.00	0.00	0.00
Daily Mobile Emissions	4.49	0.18	0.48	0.00	0.03
TOTAL	**4.49**	**3.57**	**0.48**	**0.004**	**0.031**

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	130,935
SF Non-Residential Building Coated per Day	5,237
Number of SFU	-
Number of MFU	-
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	-
SF MFU per day	-
Total Work Crew Size	29
Number of Work Crew Vehicles @ 1.1 AVR	27
Worker Crew Vehicle VMT	426

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

DATE	October 26, 2004
PROJECT NAME	Malibu - La Paz Preferred Alternative
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	60
SITE AREA (ACRES)	15.29
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	1.0
DEPTH OF EXCAVATION (Feet)	16.39
SURFACE AREA OF EXCAVATION IN SF	16,400
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	65
SIZE OF FOUNDATION SLAB IN SF	114,400
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	25
SF NON-RESIDENTIAL USE	98,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	-
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	3.4
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

EMFAC2002 v.2.08 (grams per mile)					
Vehicle Type	**CO**	**ROG**	**NO_2**	**SO_2**	**PM_{10}**
Haul Truck	7.385	0.81	11.211	0.14	0.344
Worker Vehicle	4.785	0.191	0.508	0.004	0.033
Assumptions:					
Construction Year	2005				
Season	Winter				
Temperature	60°F				
Speed	30 mph				

EQUIPMENT EMISSION FACTORS (pounds per hour)					
Equipment Type	**CO**	**ROG**	**NO_2**	**SO_2**	**PM^{10}**
Crane/Dozer	0.675	0.15	1.7	0.143	0.14
Source: Table A9-8-A, SCAQMD CEQA Handbook					

OTHER EMISSION FACTORS		
ROG from Architectural Coating (with 25% transfer efficiency)	18.5	lb/1,000 ft^2
ROG from Architectural Coating (with 65% transfer efficiency)	4.62	lb/1,000 ft^2
Dry Film Thickness	17.5	Mils
Source: Table A9-10 and **A9-13**, SCAQMD CEQA Handbook		

PAVED ROAD PM10 EMISSIONS (per VMT)		
	PM^{10} / VMT	
Road Type	**Worker Vehicle**	**Haul Truck**
Local Street	0.018000	0.2139583
Major Street/Highway	0.006400	0.1490958
Freeway	0.000650	0.0621706
Composite Factor**	**0.004110**	**0.0947344**
Source: Tables A9-9-B-1 and **A9-9-C**, SCAQMD CEQA Handbook ****Note:** Weighted average based on travel characteristics		

HAUL TRUCK ON UNPAVED SURFACE EMISSIONS
FORMULA: E = V x F WHERE: E = Emissions V = Vehicle Miles of Travel F = Emissions Factor (2.1)(G/12)(H/30)((J/3)^0.7)((I/4)^0.5)((365-K)/365)
VARIABLES G = Surface silt loading in percent H = Mean vehicle speed in miles per hour I = Mean number of wheels on vehicles J = Mean vehicle weight in tons K = Mean number of days per year with at least 0.01 inches of precipitation
EMISSIONS FACTOR = 5.55 pounds per vehicle miles traveled
Source: Table A9-9-D, SCAQMD CEQA Handbook

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)					
Malibu - La Paz Preferred Alternative					
CONSTRUCTION PHASE	**CO**	**ROG**	**NO_2**	**SO_2**	**PM^{10} (with Rule 403)**
GRADING/EXCAVATION	23	4	46	3	58
FOUNDATION	10	1	16	1	16
FINISHING	3.78	10	0.401	0.003	0.026
MAXIMUM	**23**	**10**	**46**	**3**	**58**
SCAQMD THRESHOLD	**550**	**75**	**100**	**150**	**150**
EXCEED THRESHOLD?	**NO**	**NO**	**NO**	**NO**	**NO**
SOURCE: TERRY A. HAYES ASSOCIATES LLC.					

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM^{10}
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	3.4	331,847	40.26
Note: Calculation formulas are located in **Tables A9-9-F and 9-9-G** of the SCAQMD CEQA Handbook						

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM^{10}
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	3.4	331,847	7.46
Note: Calculation formulas are located in **Tables A9-9-F and 9-9-G** of the SCAQMD CEQA Handbook						

Activity Emissions	Daily VMT	Emissions Factor	PM^{10}	PM^{10} (with Rule 403)
Haul Truck on Unpaved Surface	1.83	5.55	10.17	5.08

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM^{10}
Dozer/Shovel	3	8	15.68	3.48	39.49	3.32	3.25

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM^{10}
Haul Trucks	237	3.86	0.42	5.85	0.07	22.63
Worker Vehicles	296	3.12	0.12	0.33	0.00	1.24

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	15.68	3.48	39.49	3.32	152.72
Daily Mobile Emissions	6.97	0.55	6.18	0.08	23.87
TOTAL	**22.65**	**4.03**	**45.67**	**3.40**	**176.59**

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	15.68	3.48	39.49	3.32	34.15
Daily Mobile Emissions	6.97	0.55	6.18	0.08	23.87
TOTAL	**22.65**	**4.03**	**45.67**	**3.40**	**58.03**

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS	
Total Earth Export/Import CY	9,955
Total Haul Truck Trips @ 14.00 CY	711
Total Earth Export/Import Weight (in tons)	9,955
Daily Earth Export/Import CY	166
Daily Haul Truck Trips @ 14.00 CY	12
Daily Earth Export/Import Weight (in tons)	166
Haul Truck VMT on Unpaved Surface	1.83
HDV Off Site VMT	237
Total Work Crew Size	20
Number of Work Crew Vehicles @ 1.1 AVR	18
Work Crew Vehicle VMT - Local (miles)	296
EQUIPMENT NEEDED FOR GRADING	
Site Area in Acres	15.29
Grading Average Depth	1.00
Cubic Yards Graded	24,668
CY Graded/Day	411.13
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.90
EQUIPMENT NEEDED FOR EXCAVATION	
CY Exported/Imported	9,955
CY Exported/Imported per Day	166
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00
TOTAL EQUIPMENT NEEDED	2.90

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM^{10}
Idling Cement Trucks	0.91	8	4.89	1.09	12.31	1.04	1.01

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM^{10}
Cement Trucks	144.86	2.36	0.26	3.58	0.04	13.83
Worker Vehicles	240.00	2.53	0.10	0.27	0.00	1.00

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	4.89	1.09	12.31	1.04	1.01
Daily Mobile Emissions	4.89	0.36	3.85	0.05	14.84
TOTAL	**9.77**	**1.45**	**16.16**	**1.08**	**15.85**

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	114,400
CY of Cement Required	4,237
No. of Cement Haul Loads @ 9CY/Load	471
Labor Hours Required	8,580
Total Worker Requirement	17
Number of Work Crew Vehicles @ 1.1 AVR	15
Number of Cement Loads per Day	7.24
Cement Loads Per Hour	0.91
CF/Day Poured	1,760.00
CY/Day Poured	65.19
HDV Off Site VMT	144.86
Work Crew Vehicle VMT	240.00

TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM^{10}
Architectural Coating-Nonresidential	Exterior Wall	7,840	-	2.54	-	-	-
	Interior Wall	23,520	-	7.61	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
TOTAL			**0.00**	**10.15**	**0.00**	**0.00**	**0.00**

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM^{10}
Architectural Coating	Exterior Wall	7,840	-	0.63	-	-	-
	Interior Wall	23,520	-	1.90	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
TOTAL			**0.00**	**2.54**	**0.00**	**0.00**	**0.00**

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM^{10}
Worker Vehicles	358	3.78	0.15	0.40	0.003	0.026

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	0.00	10.15	0.00	0.00	0.00
Daily Mobile Emissions	3.78	0.15	0.40	0.003	0.026
TOTAL	**3.78**	**10.30**	**0.40**	**0.003**	**0.026**

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM^{10}
Daily Area Source Emissions	0.00	2.54	0.00	0.00	0.00
Daily Mobile Emissions	3.78	0.15	0.40	0.00	0.03
TOTAL	**3.78**	**2.69**	**0.40**	**0.003**	**0.026**

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	98,000
SF Non-Residential Building Coated per Day	3,920
Number of SFU	-
Number of MFU	-
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	-
SF MFU per day	-
Total Work Crew Size	25
Number of Work Crew Vehicles @ 1.1 AVR	22
Worker Crew Vehicle VMT	358

APPENDIX E

SCAQMD Rule 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(10) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(11) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(12) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(13) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(14) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(15) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(16) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(17) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(18) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(19) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(20) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(21) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(22) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(23) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(24) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(25) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(26) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(27) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(28) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(29) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(30) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(31) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(32) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(34) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent

method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) After January 1, 2005, no person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) after January 1, 2005, install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) after January 1, 2005, identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Agricultural operations directly related to the raising of fowls or animals and agricultural operations, provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(B) Agricultural operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(C) Agricultural operations outside the South Coast Air Basin, until January 1, 2005, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(D) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(E) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(F) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(G) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(H) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(I) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan

provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

(Amended April 2, 2004)

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

(Amended April 2, 2004)

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

(Amended April 2, 2004)

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Unpaved roads/parking lots	19-1	Stabilize soils to meet the applicable performance standards; and	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2	Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

TABLE 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

TABLE 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

TABLE 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3

CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

APPENDIX F

Operational Emissions Calculation

Year 2007 Los Angeles County (South Coast Air Basin) Burden Emissions Factor Calculations

Daily VMT	197,479,000	
Daily Starts	37,926,200	
Average Trip Length	5.21	(Daily VMT/Daily Starts)

	Tons/Day	Pounds/Day	Pounds/Mile
CO	1414.33	2,828,660	0.014324
ROG	155.75	311,500	0.001577
NOX	304.56	609,120	0.003084
SOX	1.06	2,120	0.000011
PM_{10}	10.65	21,300	0.000108

SOURCE: EMFAC2002.

ASSUMPTIONS

	WEEKDAY	***Daily Trips***	***VMT***
	Proposed Project	2,863	14,907
	Preferred Project	2,437	12,689
1	Rancho Malibu Hotel	1,540	8,019
2	Pepperdine University Upper Campus	1,227	6,389
3	Forge Lodge	249	1,297
4	Pepperdine Office Development	953	4,962
5	Proposed Senior Housing	144	750
6	Single Family Housing Development	77	401
7	Adamson Self-Storage	141	734
8	Shultz	1,335	6,951
9	Yamaguchi	2,935	15,282
10	Residential Condominium	57	297
11	Office	285	1,484
12	Malibu Pier	1,107	5,764
13	Windsale	691	3,598
14	Office	226	1,177

DAILY OPERATIONAL EMISSIONS - WEEKDAY

Proposed Project				
CO	ROG	NOX	SOX	PM10
213.53	23.51	45.98	0.16	1.61

Preferred Project				
CO	ROG	NOX	SOX	PM10
181.76	20.02	39.14	0.14	1.37

1 Rancho Malibu Hotel				
CO	ROG	NOX	SOX	PM10
114.86	12.65	24.73	0.09	0.86

2 Pepperdine University Upper Campus				
CO	ROG	NOX	SOX	PM10
91.51	10.08	19.71	0.07	0.69

3 Forge Lodge				
CO	ROG	NOX	SOX	PM10
18.57	2.05	4.00	0.01	0.14

4 Pepperdine Office Development				
CO	ROG	NOX	SOX	PM10
71.08	7.83	15.31	0.05	0.54

5 Proposed Senior Housing				
CO	ROG	NOX	SOX	PM10
10.74	1.18	2.31	0.01	0.08

6 Single Family Housing Development				
CO	ROG	NOX	SOX	PM10
5.74	0.63	1.24	0.00	0.04

7 Adamson Self-Storage				
CO	ROG	NOX	SOX	PM10
10.52	1.16	2.26	0.01	0.08

8 Shultz				
CO	ROG	NOX	SOX	PM10
99.57	10.96	21.44	0.07	0.75

9 Yamaguchi				
CO	ROG	NOX	SOX	PM10
218.90	24.11	47.14	0.16	1.65

10 Residential Condominium				
CO	ROG	NOX	SOX	PM10
4.25	0.47	0.92	0.00	0.03

11 Office				
CO	ROG	NOX	SOX	PM10
21.26	2.34	4.58	0.02	0.16

12 Malibu Pier				
CO	ROG	NOX	SOX	PM10
82.56	9.09	17.78	0.06	0.62

13 Windsale				
CO	ROG	NOX	SOX	PM10
51.54	5.68	11.10	0.04	0.39

14 Office				
CO	ROG	NOX	SOX	PM10
16.86	1.86	3.63	0.01	0.13

DAILY OPERATIONAL EMISSIONS - WEEKEND

Proposed Project				
CO	ROG	NOX	SOX	PM10
167.14	18.41	35.99	0.13	1.26

Preferred Project				
CO	ROG	NOX	SOX	PM10
161.85	17.82	34.85	0.12	1.22

1 Rancho Malibu Hotel				
CO	ROG	NOX	SOX	PM10
108.15	11.91	23.29	0.08	0.81

2 Pepperdine University Upper Campus				
CO	ROG	NOX	SOX	PM10
69.36	7.64	14.94	0.05	0.52

3 Forge Lodge				
CO	ROG	NOX	SOX	PM10
21.93	2.41	4.72	0.02	0.17

4 Pepperdine Office Development				
CO	ROG	NOX	SOX	PM10
11.71	1.29	2.52	0.01	0.09

5 Proposed Senior Housing				
CO	ROG	NOX	SOX	PM10
10.74	1.18	2.31	0.01	0.08

6 Single Family Housing Development				
CO	ROG	NOX	SOX	PM10
6.04	0.67	1.30	0.00	0.05

7 Adamson Self-Storage				
CO	ROG	NOX	SOX	PM10
9.77	1.08	2.10	0.01	0.07

8 Shultz				
CO	ROG	NOX	SOX	PM10
10.59	1.17	2.28	0.01	0.08

9 Yamaguchi				
CO	ROG	NOX	SOX	PM10
210.70	23.20	45.37	0.16	1.59

10 Residential Condominium				
CO	ROG	NOX	SOX	PM10
4.55	0.50	0.98	0.00	0.03

11 Office				
CO	ROG	NOX	SOX	PM10
3.51	0.39	0.75	0.00	0.03

12 Malibu Pier				
CO	ROG	NOX	SOX	PM10
89.87	9.90	19.35	0.07	0.68

13 Windsale				
CO	ROG	NOX	SOX	PM10
51.91	5.72	11.18	0.04	0.39

14 Office				
CO	ROG	NOX	SOX	PM10
2.98	0.33	0.64	0.00	0.02

APPENDIX G

Vehicular Traffic Noise Worksheets

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	Existing Conditions - Weekday

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	646	30	50	67
Colin McEwin School	Civic Center	Cross Creek - Webb	646	30	50	67
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	3515	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	139	30	50	60
Source Terry A. Hayes Associates						

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	Existing Conditions - Weekend

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	493	30	50	66
Colin McEwin School	Civic Center	Cross Creek - Webb	493	30	50	66
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	3517	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	108	30	50	59
Source Terry A. Hayes Associates						

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	No Project Conditions - Weekday

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	1016	30	50	69
Colin McEwin School	Civic Center	Cross Creek - Webb	1016	30	50	69
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	4124	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	145	30	50	60

Source Terry A. Hayes Associates

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	No Project Conditions - Weekend

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	850	30	50	68
Colin McEwin School	Civic Center	Cross Creek - Webb	850	30	50	68
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	4035	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	113	30	50	59
Source Terry A. Hayes Associates						

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	Project Conditions - Weekday

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	1182	30	50	70
Colin McEwin School	Civic Center	Cross Creek - Webb	1182	30	50	70
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	4168	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	145	30	50	60
Source Terry A. Hayes Associates						

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	Project Conditions - Weekend

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	1011	30	50	69
Colin McEwin School	Civic Center	Cross Creek - Webb	1011	30	50	69
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	4076	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	113	30	50	59
Source Terry A. Hayes Associates						

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	Alternative Project Conditions - Weekday

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	1159	30	50	69
Colin McEwin School	Civic Center	Cross Creek - Webb	1159	30	50	69
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	4160	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	145	30	50	60
Source Terry A. Hayes Associates						

PROJECT NAME	Malibu La Paz
YEAR/SCENARIO	Alternative Project Conditions - Weekend

VEHICLE DISTRIBUTION				
TYPE	**7:00 AM - 7:00 PM**	**7:00 PM - 10:00 PM**	**10:00 PM - 7:00 AM**	**TOTAL**
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

Sensitive Receptor	**Roadway Segment**	**From / To**	**Peak Hour Traffic Volume**	**Speed (mph)**	**Receptor Distance (feet)**	**CNEL (dBA)**
Malibu Library	Civic Center	Cross Creek - Webb	1004	30	50	69
Colin McEwin School	Civic Center	Cross Creek - Webb	1004	30	50	69
St. John's Malibu Urgent Care	PCH	Cross Creek - Webb	4074	40	100	74
Residences on Cross Creek	Cross Creek	Civic Center - Fines	113	30	50	59

Source Terry A. Hayes Associates