APPENDIX H
ENVIRONMENTAL NOISE STUDY FOR THE PROPOSED FREEWAY CORRIDOR SPECIFIC PLAN IN THE CITY OF YUCAIPA

ENVIRONMENTAL NOISE STUDY FOR THE PROPOSED FREEWAY CORRIDOR SPECIFIC PLAN IN THE CITY OF YUCAIPA

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1 Introduction / Project Description

The purpose of this Noise Study is to identify and assess the potential noise impacts associated with the Yucaipa Freeway Corridor Specific Plan (proposed Specific Plan) to be located within the City of Yucaipa. Figure 1-1 identifies the location of the project site, and the proposed land uses. The Specific Plan envisions a variety of land uses that will allow a maximum of 1,547 homes throughout the entire 1,234.3-acre Plan area. Housing implemented through this Specific Plan will range from densities of one dwelling unit per acre to eight dwelling units per acre.

The proposed Specific Plan includes commercial, business park, public facility, and open space land uses, as well as internal road and circulation improvements. These improvements will allow daily and emergency vehicular access as well as provide for a multi-modal (pedestrian, bicycle, and equestrian) access to all areas within the Specific Plan site. Roadway design will incorporate traffic calming measures that improve comfort and safety. Other circulation projects outside the scope of the proposed Specific Plan include the reconfiguration of the Live Oak Canyon/Oak Glen Road interchange, the long-range plan for a new interchange at Wildwood Canyon Road, and the expansion of capacity at the County Line Road interchange.

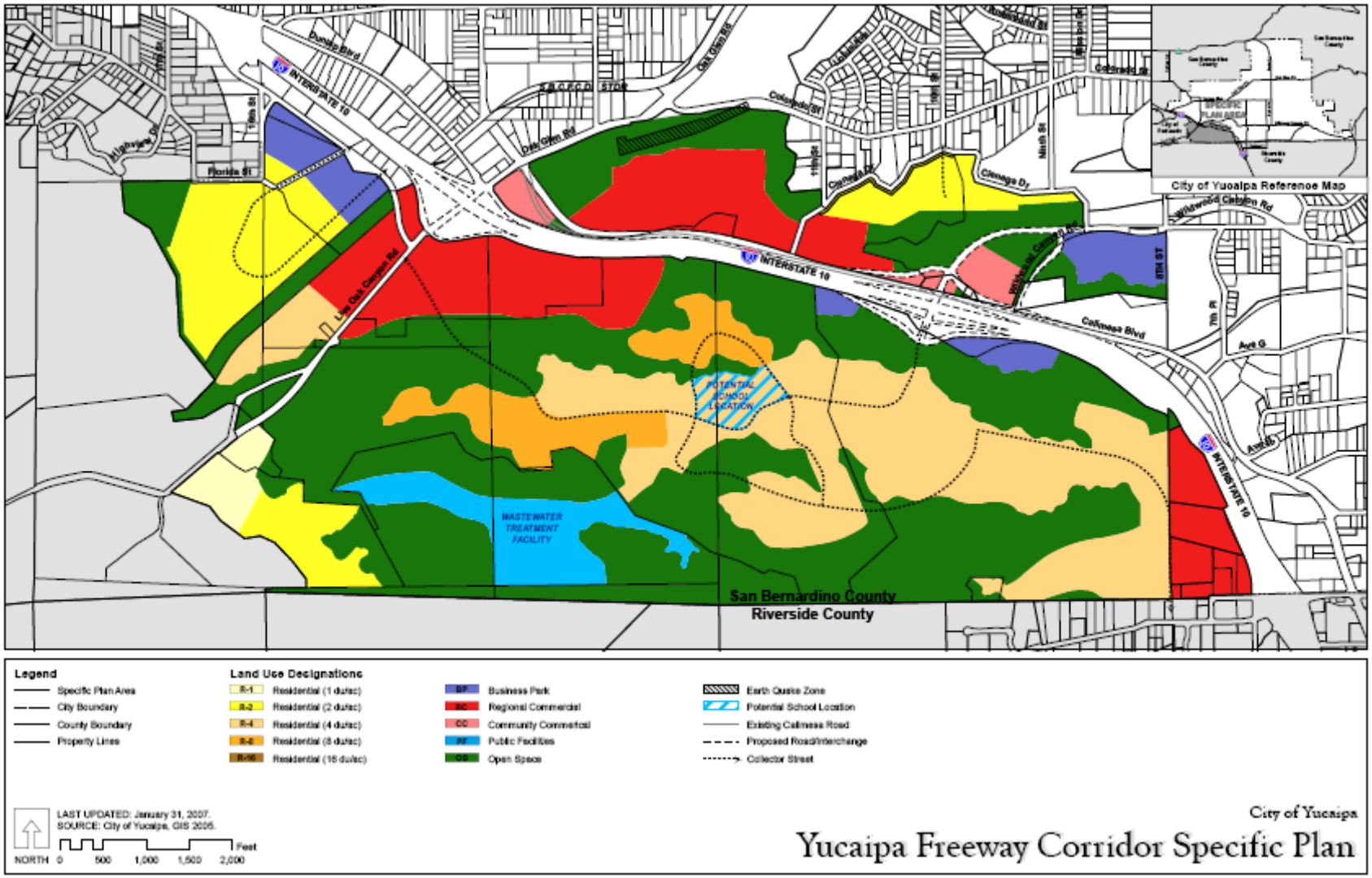


Figure 1-1. Project Site Location and Proposed Land Use Plan

2 Noise Descriptors

The following sections briefly describe the noise descriptors that will be used throughout this study:

2.1 Decibels

Sound pressures can be measured in units called microPascals (μPa). However, expressing sound levels in terms of μPa would be very cumbersome as it would require a wide range of very large numbers. For this reason, sound pressure levels are described in logarithmic units of ratios of actual sound pressures to a reference pressure squared. These units are called bels. In order to provide a finer resolution, a bel is subdivided into 10 decibels, abbreviated dB.

As decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB. In fact, they would combine to produce 73 dB. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume or speed of the traffic on a street will increase the traffic noise level by 3 dB. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dB.

2.2 A-Weighting

Sound pressure level alone is not a reliable indicator of loudness. The frequency or pitch of a sound also has a substantial effect on how humans will respond. While the intensity of the sound is a purely physical quantity, the loudness or human response depends on the characteristics of the human ear.

Human hearing is limited not only to the range of audible frequencies, but also in the way it perceives the sound pressure level in that range. In general, the healthy human ear is most sensitive to sounds between 1,000 Hertz (Hz) and 5,000 Hz, and is much less sensitive to both higher and lower frequency sounds. In order to approximate the frequency response of the human ear, a series of sound pressure level adjustments is usually applied to the sound measured by a sound level meter. The adjustments, or weighting network, are frequency dependent.

The A-scale approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. When a sound level is measured in decibels using the A-scale it is denoted as dB(A). A range of noise levels associated with common in- and outdoor activities is shown in Figure 2-1.

The A-weighted sound level of traffic and other long-term noise-producing activities within and around a community varies considerably with time. Measurements of this varying noise level are accomplished by recording values of the A-weighted level during representative periods within a specified portion of the day.

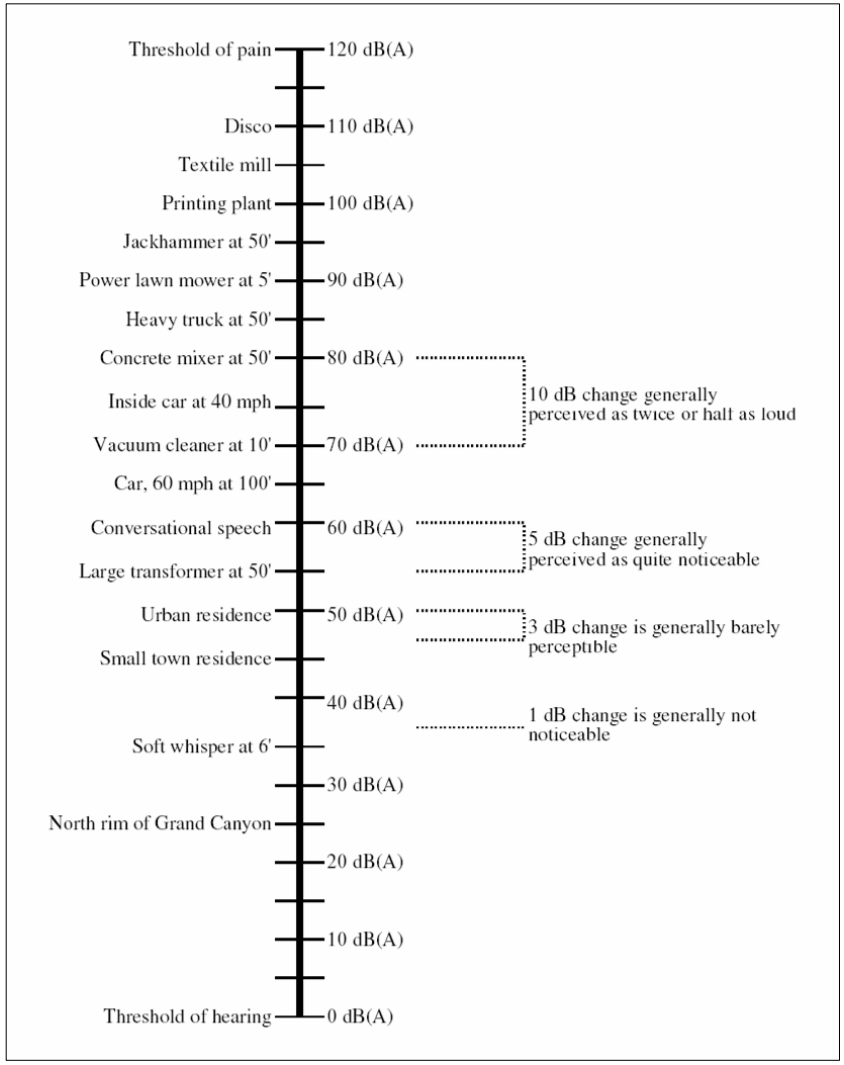


Figure 2-1. Common Noise Sources and A-Weighted Noise Levels

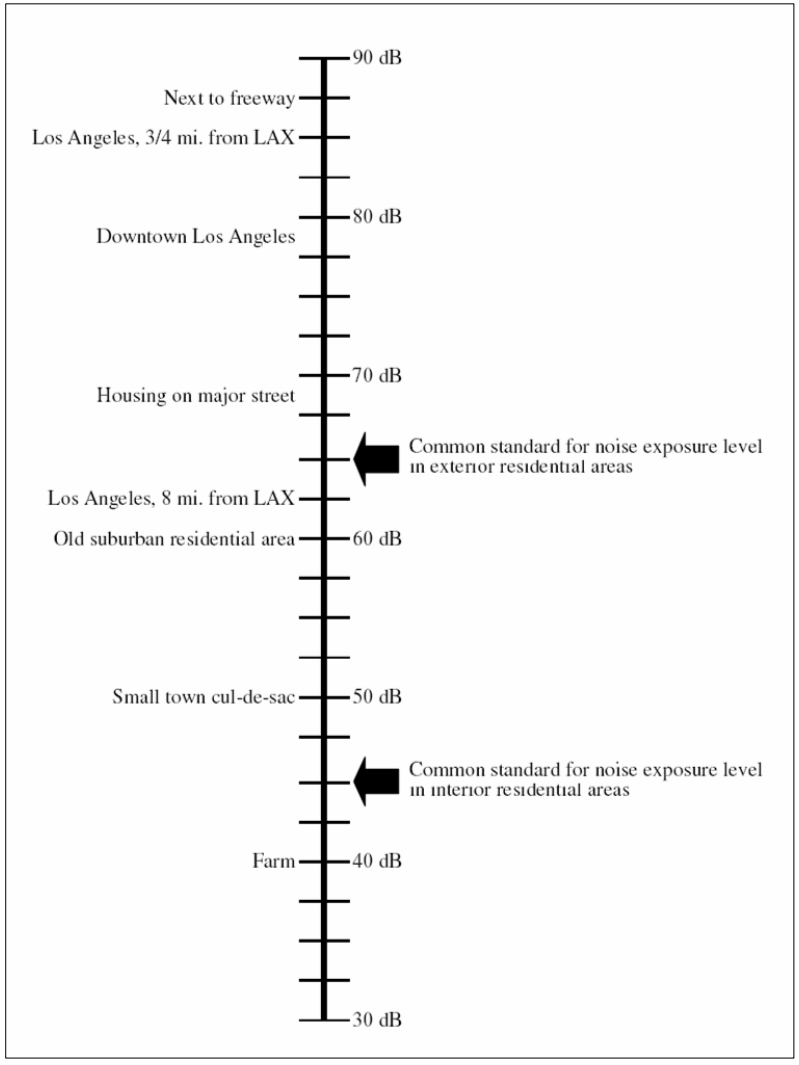


Figure 2-2. Common CNEL & Ldn Noise Exposure Levels at Various Locations

2.3 Equivalent Sound Level (L_{eq})

Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off, or construction work which can vary sporadically. The equivalent sound level (L_{eq}) describes the average acoustic energy content of noise for an identified period of time, commonly 1 hour. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy over the duration of the exposure. For many noise sources, the L_{eq} will vary depending on the time of day – a primary example is traffic noise which rises and falls depending on the amount of traffic on a given street or freeway.

2.4 Community Noise Equivalent Level (CNEL)

It is recognized that a given level of noise may be more or less tolerable depending on the duration of exposure experienced by an individual. There are numerous measures of noise exposure that consider not only the A-level variation of noise but also the duration of the disturbance. The State Department of Aeronautics and the California Commission on Housing and Community Development have adopted the community noise equivalent level (CNEL). This measure weights the average noise levels for the evening hours (7:00 p.m. to 10:00 p.m.), increasing them by 5 dB, and weights the late evening and morning hour noise levels (10:00 p.m. to 7:00 a.m.) by 10 dB. The daytime noise levels are combined with these weighted levels and are averaged to obtain a CNEL value. Figure 2-2 indicates the outdoor CNEL at typical locations.

2.5 Day-Night Noise Level (Ldn)

Noise control guidelines provided by the US Department of Housing and Urban Development (HUD) are stated using the day-night average sound level (Ldn) metric. Ldn is similar to CNEL, described above, except that there is no weighting applied to the evening hours of 7:00 p.m. to 10:00 p.m. Ldn weights the average noise levels for the nighttime hours (10:00 p.m. to 7:00 a.m.), increasing them by 10 dB. The daytime noise levels are combined with these weighted levels and are averaged to obtain an Ldn value. Figure 2-2 indicates the outdoor Ldn at typical locations. For typical urban traffic patterns, Ldn provides essentially the same noise exposure as CNEL. The Ldn and CNEL metrics will be used interchangeably throughout this report.

3 Noise Criteria

The following sections discuss the various noise criteria that have been considered for this study.

3.1 State of California Noise Insulation Standards

The Noise Insulation Standards (Title 24 of the California Code of Regulations) states that the "interior community noise equivalent level (CNEL) attributable to exterior sources shall not exceed

an annual CNEL of 45 dB in any habitable room." Additionally, the standards specify that multifamily residential buildings or structures to be located within exterior CNEL contours of 60 dB or greater of an existing or adopted freeway, expressway, parkway, major street, thoroughfare, railroad, rapid transit line, or industrial noise source shall require an acoustical analysis showing that the building has been designed to limit intruding noise to the level prescribed (interior CNEL of 45 dB). In addition, the State standards set minimum ratings for the sound and impact transmission of common wall and floor/ceiling separation assemblies between living units, or between a living unit and a common interior space.

3.2 California Code of Regulations

Title 5, Division 1, Chapter 13, Subchapter 1, Article 2, Section 14010 of the California Code of Regulations specifies standards for school site selection. These standards state that the site shall not be adjacent to a road or freeway that any site-related traffic and sound level studies have determined will have safety problems or sound levels which adversely affect the educational program. The regulations do not quantify an adverse sound level.

3.3 City of Yucaipa Municipal Code

The City of Yucaipa Municipal Code identifies noise level limits for noise intrusion from non-transportation sources onto various types of land uses, as shown in Table 3-1.

Table 3-1. City of Yucaipa Municipal Code Non-Transportation Noise Level Limits

Affected Land Use	Time Period	Noise Level
Residential	7 am to 10 pm 10 pm to 7 am	55 dB(A) 55 dB(A)
Professional Services	Anytime	55 dB(A)
Other Commercial	Anytime	60 dB(A)
Industrial	Anytime	70 dB(A)

The noise limits identified in the above table are for a cumulative period of more than 30 minutes in any hour (denoted as L_{50}). Higher noise limits are permitted for shorter periods of time within an hour, but in no case is the noise level permitted to exceed the levels of Table 3-1 plus 20 dB.

If the measured ambient noise level exceeds any of the noise limits, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the alleged offensive noise consists entirely of impact noise or simple tone noise, the noise levels shall be reduced by 5 dB.

The City of Yucaipa Municipal Code exempts temporary construction, repair or demolition activities that occur between 7 a.m. and 7 p.m. except on Sundays and Federal holidays.

3.4 City of Yucaipa Development Code

The City of Yucaipa Development Code (which is contained within Section 85.020510 of the City of Yucaipa Municipal Code) provides the development standards for land uses within a Noise Hazard Overlay District. The City of Yucaipa's Land Use map does not identify a Noise Hazard Overlay District; however, based on a conversation with City of Yucaipa planning staff, the Noise Hazard Overlay District is applied to those areas where the exterior Ldn is 65 dB or greater.

In these districts the interior noise level shall not exceed 45 dB Ldn in all single family and multi-family residences and educational institutions. Exterior noise levels in all single family and multi-family residential areas should not exceed 65 dB Ldn, and shall not exceed 70 dB Ldn. Ability to mitigate exterior noise at residential areas to the levels of 65 dB Ldn and 70 dB Ldn shall be considered by the City of Yucaipa when determining the actual Ldn level with which the residential land use must comply. If, in the opinion of the City of Yucaipa, the mitigation measures necessary to reduce the exterior Ldn to 65 dB are reasonable, then the City of Yucaipa will require compliance with a 65 dB Ldn standard. However, if, in the opinion of the City of Yucaipa, the mitigation measures necessary to reduce the exterior Ldn to 65 dB are unreasonable, then the City of Yucaipa will require compliance with a 70 dB Ldn standard.

All non-residential structures within a Noise Hazard Overlay District shall be sound attenuated against the combined input of all present and projected exterior noise to not exceed the following criteria:

Table 3-2. City of Yucaipa Development Code Non-Residential Interior Noise Standards

Typical Uses	12-Hour Average Noise Level, $L_{eq}(12)$
Educational institutions, libraries, churches, etc.	45 dB(A)
General office, reception, etc.	50 dB(A)
Retail stores, restaurants, etc.	55 dB(A)
Other areas for manufacturing, assembly, test, warehousing, etc.	65 dB(A)

It should be noted that there is a conflict within the Development Code regarding the appropriate interior standard for educational institutions. Both an Ldn standard and a 12-hour average noise level standard are identified. The Ldn metric is based on a 24-hour average noise level, as opposed to a 12-hour average noise level. For the purposes of this Noise Study, it will be assumed that the Ldn standard of 45 dB applies to the interior of educational institutions, as this is more stringent.

3.5 City of Yucaipa General Plan

The City of Yucaipa General Plan identifies the following transportation-related Ldn noise standards for various land use categories:

Table 3-3. City of Yucaipa General Plan Transportation Noise Standards

Categories	Exterior[a]	Interior[b]
Residential, hotel, motel, transient lodging	60 dB	45 dB
Commercial retail, bank, restaurant	--	50 dB
Office building, R&D, offices	65 dB	45 dB
Amphitheater, hall, auditorium, theater	--	45 dB
Hospital, school, church, library	65 dB	45 dB
Park	65 dB	--

Notes:

a) Outdoor environment limited to private patios/balconies, private yards, picnic areas, playgrounds, and recreation areas. 65 dB Ldn will be allowed provided exterior noise levels have been substantially reduced through a reasonable application of the best available technology, and interior noise level does not exceed 45 dB with windows and doors closed.

b) Indoor environment, excluding bathrooms, kitchens, toilets, closets and corridors.

It should be noted that the standards identified in Table 3-3 conflict with the Development Code standards identified in Section 3.4 of this Noise Study for residences and schools located within a Noise Hazard Overlay District. The conflicts are illustrated in Table 3-4.

Table 3-4. Conflicts Between City of Yucaipa General Plan and Development Code Standards

Location	Noise Standard	
	General Plan (Table 3-3)	Development Code (Noise Hazard Overlay District)
Exterior residential noise standard	60 dB Ldn, but Ldn up to 65 dB is permitted	65 dB Ldn, but Ldn up to 70 dB is permitted
Exterior school noise standard	65 dB Ldn	No standard
Interior school noise standard	12-hour average noise level [$L_{eq}(12)$] of 45 dB(A)	45 dB Ldn

4 Thresholds of Significance

Based on the noise criteria discussed above, and Appendix G of the CEQA guidelines, a significant impact would occur if implementation of the proposed Specific Plan would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This impact would occur if:

  (1) Traffic resulting from implementation of the proposed Specific Plan causes the Ldn to exceed 60 dB at existing off-site residences not located within a Noise Hazard Overlay District, or 65 dB at existing off-site residences located within a Noise Hazard Overlay District [source: City of Yucaipa General Plan and Development Code]; or

(2) Traffic resulting from implementation of the proposed Specific Plan causes the Ldn to exceed 65 dB for existing off-site office buildings, hospitals, schools, churches, libraries, or parks [source: City of Yucaipa General Plan]; or

(3) The interior and/or exterior Ldn in the Specific Plan site would exceed the City of Yucaipa Development Code and General Plan standards; or

(4) The noise levels generated by non-transportation sources within the Specific Plan site would exceed the exterior limits specified in the City of Yucaipa Municipal Code; or

(5) The noise levels generated by off-site non-transportation sources exceed the exterior limits specified in the City of Yucaipa Municipal Code at the Specific Plan site.

- Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the vicinity of the Specific Plan site above levels existing without the proposed Specific Plan.
- A substantial temporary or periodic increase in ambient noise levels in the vicinity of the Specific Plan above levels existing without the proposed Specific Plan.

5 Study Methods and Procedures

In order to document the existing noise environment, measurements were obtained at five locations throughout the study area, including the proposed Specific Plan site. (Refer to Figure 5-1.) The ambient noise level measurements were obtained by positioning the sound level meter on the property at a height of 5 feet above the ground. The instrument was calibrated prior to obtaining the measurements. Extraneous noise sources (such as sirens) were excluded from the measurements by placing the sound level meter on “standby” until the noise event was concluded. The ambient noise measurement was obtained over a continuous 24-hour period at three residential locations. The remaining two measurement positions were selected to characterize the noise levels that are generated by activities at the Yucaipa Valley Water District Wastewater Treatment Facility. At these locations the ambient noise measurement was obtained for 20 minutes, by which time the measured noise levels had stabilized at constant values.

The instrumentation used to obtain the noise measurements consisted of integrating sound level meters (Models 712 and 820) and an acoustical calibrator (Model CAL200) manufactured by Larson Davis Laboratories. The accuracy of the calibrator is maintained through a program established by the manufacturer, and is traceable to the National Bureau of Standards. All instrumentation meets the requirements of the American National Standards Institute (ANSI) S1.4-1971.

A proprietary version of the highway traffic noise prediction model developed by the Federal Highway Administration (as described in report FHWA-RD-77-108) was used to model existing traffic noise levels and to predict future year traffic noise levels. This model predicts noise levels

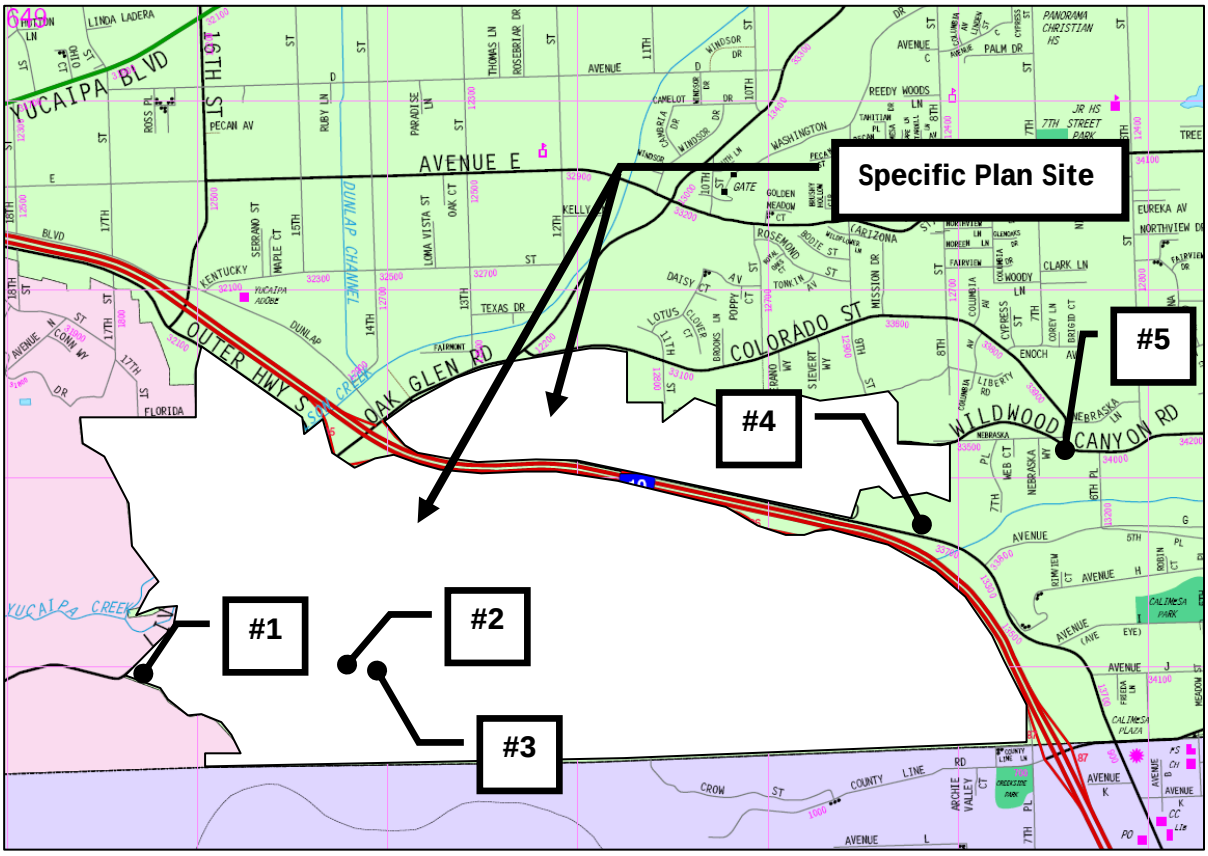


Figure 5-1. Noise Measurement Locations
(Source: Thomas Bros. Maps)

based on traffic volumes, speeds, truck mix, site conditions, and distance from the roadway to the receptor. The California reference energy mean emission (Calveno) levels developed by Caltrans were used in the prediction model.

6 Existing Noise Environment

Traffic on the local streets is the predominant source of noise that currently affects the study area. The study area is defined as the proposed Specific Plan site plus land uses adjacent to all of the arterial segments considered in the traffic study prepared by Katz, Okitsu & Associates. Other noise sources include the Yucaipa Valley Water District wastewater treatment facility, and assorted commercial properties. The following sections discuss the noise measurements and analyses that were conducted to identify the existing noise levels in the study area.

6.1 Noise Measurements

As indicated in Section 5, measurements were obtained at five locations in the study area in order to document the existing noise environment. (Refer to Figure 5-1.) The locations are identified as follows:

#1 - The residence at 32017 Live Oak Canyon Road.

#2 - Inside the wastewater treatment plant.

#3 - Outside the front gate of the wastewater treatment plant.

#4 - The residence at 33600 Calimesa Boulevard, Unit 190.

#5 - At Unit 108 in the Wildwood Mobile Home Park.

The results of the noise measurements are provided in Appendix I, and are discussed in more detail in the following sections.

6.2 Traffic Noise Exposures

The result of the noise measurements at Locations #1, #4 and #5 were used to calibrate a proprietary version of the highway traffic noise prediction model developed by the Federal Highway Administration (as described in report FHWA-RD-77-108). The results of the modeling effort, provided in Appendix II, are summarized in Table 6-1.

Table 6-1. Existing Traffic Noise Levels

Street Segment	Unmitigated Ldn @ 50'	Distance to Ldn Contour Line				
		60 dB	65 dB	70 dB	75 dB	80 dB
14th Street						
North of Oak Glen	63.5 dB	100'	---	---	---	---
Calimesa Boulevard						
Oak Glen to Wildwood Cyn	68.5 dB	235'	100'	---	---	---
Wildwood Cyn to Ave G	65.0 dB	130'	50'	---	---	---
Colorado Street						
North of Wildwood Cyn	59.5 dB	---	---	---	---	---
County Line Road						
I-10 to Calimesa	68.0 dB	215'	90'	---	---	---
I-10 Freeway						
Yucaipa to Oak Glen	83.5 dB	1,450'	905'	490'	235'	100'
Oak Glen to County Line	83.0 dB	1,400'	860'	460'	215'	90'
Live Oak Canyon / Oak Glen Road						
South of Outer Hwy 10 S	62.5 dB	83'	---	---	---	---
I-10 to Calimesa	71.0 dB	340'	155'	52'	---	---
Calimesa to Ave E	68.0 dB	215'	90'	---	---	---
Outer Highway 10 South						
West of Live Oak Cyn	61.0 dB	62'	---	---	---	---
Wildwood Canyon Road						
Calimesa to Colorado	65.0 dB	130'	50'	---	---	---

6.3 Yucaipa Valley Water District Wastewater Treatment Facility

Measurements were obtained at two locations along the boundary of the wastewater treatment facility to identify the noise level generated by the mechanical equipment. The results of the noise measurements are provided in Appendix I as Locations #2 and #3. Referring to the Appendix, the median noise level (L_{50}) was about 74 dB(A) and the maximum noise level was about 76 dB(A) at a location within the facility along the northern fence line. At the entry gate to the facility along the eastern fence line, the median noise level was about 48 dB(A) and the maximum noise level was about 62 dB(A).

7 Future Noise Environment

7.1 Construction

In compliance with the City of Yucaipa Municipal Code requirements, construction of future development projects in the Specific Plan site would occur only between 7:00 a.m. and 7:00 p.m. on Monday through Saturday. The Municipal Code exempts temporary construction, repair, and demolition activities from the noise level limits, providing the activity occurs between 7:00 a.m. and 7:00 p.m. on Monday through Saturday. There will be no construction activities on Sundays or legal holidays. As a result, the impact of construction noise will not be significant.

Construction noise levels on and near the Specific Plan site would fluctuate depending on the particular type, number and duration of use of various pieces of construction equipment. The exposure of persons to the periodic increase in noise levels will be short-term. Table 7-1 shows typical noise levels associated with various types of construction-related machinery.

Groundborne vibration is measured in terms of the velocity of the vibration oscillations. As with noise, a logarithmic decibel scale (VdB) is used to quantify vibration intensity. When groundborne vibration exceeds 72 to 80 VdB, it is usually perceived as annoying to occupants of residential buildings. For institutional land uses, the threshold is 75 to 83 VdB. (Source: Reference 5.) The degree of annoyance is dependent upon individual sensitivity to vibration, and the frequency of the vibration events. Typically, vibration levels must exceed 100 VdB before building damage occurs.

The primary vibratory source during the construction of future development projects on the Specific Plan site would be large bulldozers. Based on published data (Reference 5), typical bulldozer activities generate an approximate vibration level of 87 VdB at a distance of 25 feet. It is possible that vibration will be perceived if bulldozers operate within about 56 to 140 feet of a residence, or within about 40 to 100 feet of an institutional building. However, the impact is not considered significant because of the short duration of the activity, and because the vibration levels would be well below the threshold of building damage.

Table 7-1. Construction Equipment Noise Levels

Equipment Type	Typical Average Equipment Noise Level at 100 ft. in dB(A)[a]
Air Compressor	75
Backhoe	75
Concrete Mixer	75
Concrete Pump	75
Dozer	75
Generator	75
Grader	75
Loader	75
Paver	80
Pneumatic Tools	80
Pump	75
Scraper	80
Trucks	75

Source: U. S. Environmental Protection Agency, 1971.

Notes:

a. With noise controls applied. Obtainable by selecting quieter procedures or machines and implementing noise control features such as improved mufflers, use of silencers, shields, shrouds, ducts and engine enclosures.

7.2 Yucaipa Valley Water District Wastewater Treatment Facility

As indicated in Section 6.3, measurements indicate that the operations at the wastewater treatment facility produce a median noise level of about 74 dB(A) and a maximum noise level of about 76 dB(A) along the northern fence line. The unmitigated noise levels produced by the mechanical equipment may exceed the City of Yucaipa standards in areas designated as residential land use located within about 375 feet of the facility. Therefore, the impact is potentially significant.

It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

7.3 Project Operation

Implementation of the proposed Specific Plan would result in the introduction of a number of new noise sources. These noise sources include: traffic; commercial activities such as loading docks, parking lots, and mechanical equipment; and school activities. Each of these sources is discussed in greater detail in the following sections. However, because the future development projects for the proposed commercial land uses are not yet known, the discussions will, of necessity, be general in nature. Operation of anticipated future development projects would not generate ground-borne vibration or noise levels.

7.3.1 Traffic

Using data provided by Katz, Okitzu & Associates, analyses were conducted to identify the future traffic noise exposures that would occur in the study area, both with and without the proposed Specific Plan. The results of the analyses are provided in Table 7-2 for near-term conditions (year 2008), and in Tables 7-3 through 7-6 for the buildout year of 2030. Each table identifies the traffic data used for each street segment in the analysis and the estimated Ldn generated by the traffic. Some of the street segments in the tables go through the Specific Plan site, while most are outside the site. Appendix II provides the complete analyses.

Table 7-2. Traffic Noise Exposure Levels, Year 2008

Street Segment	Average Daily Traffic		Ldn at 50' from Near Lane Centerline		Change in Ldn Due to Project
	Without Project	With Project	Without Project	With Project	
14th Street					
North of Oak Glen	7,300	9,500	64.0 dB	64.0 dB	0.0 dB
South of Kentucky	5,400	7,600	63.0 dB	64.0 dB	1.0 dB
Calimesa Boulevard					
Oak Glen to Wildwood Cyn	11,100	11,900	68.5 dB	68.0 dB	-0.5 dB
Wildwood Cyn to Ave G	5,800	N/A	65.5 dB	N/A	N/A
Colorado Street					
North of Wildwood Cyn	2,500	2,900	60.0 dB	**60.5 dB**	0.5 dB
County Line Road					
I-10 to Calimesa	19,300	27,800	68.0 dB	69.5 dB	1.5 dB
I-10 Freeway					
Yucaipa to Oak Glen	123,000	123,000	83.5 dB	83.5 dB	0.0 dB
Oak Glen to County Line	113,000	113,000	83.0 dB	83.0 dB	0.0 dB
Live Oak Canyon / Oak Glen Road					
South of Outer Hwy 10 S	5,100	7,100	62.5 dB	64.0 dB	1.5 dB
I-10 to Calimesa	27,600	37,100	72.0 dB	72.0 dB	0.0 dB
Calimesa to Ave E	15,200	27,200	68.0 dB	70.5 dB	2.5 dB
Outer Highway 10 South					
West of Live Oak Cyn	3,400	3,700	61.5 dB	62.0 dB	0.5 dB
Wildwood Canyon Road					
Calimesa to Colorado	7,700	7,700	65.0 dB	65.0 dB	0.0 dB

Note: Shaded cell indicates significant impact.

- Referring to Table 7-2, it may be concluded that in the near term (by year 2008) implementation of the proposed Specific Plan would result in an increase of at most 2.5 dB in the traffic-generated Ldn. This is not a substantial permanent increase in the ambient noise level; therefore the impact is not significant.
- Referring to Table 7-2, it may be concluded that in the near term (by year 2008) implementation of the proposed Specific Plan would result in an increase of the traffic-generated Ldn above the 60 dB threshold of significance at existing residences within 56 feet of the near lane centerline of Colorado Street north of Wildwood Canyon Road. Therefore the impact would be significant at

these locations. However, the anticipated increase of 0.5 dB would not be perceptible to the human ear.

Table 7-3. Traffic Noise Exposure Levels, Year 2030, Without Wildwood Canyon Interchange

Street Segment	Average Daily Traffic		Ldn at 50' from Near Lane Centerline		Change in Ldn Due to Project
	Without Project	With Project	Without Project	With Project	
14th Street					
North of Oak Glen	4,000	6,300	61.5 dB	62.5 dB	1.0 dB
South of Kentucky	4,200	6,300	62.0 dB	63.5 dB	1.5 dB
16th Street					
Outer Hwy 10 South to Ave E	1,600	3,000	58.0 dB	**60.5 dB**	2.5 dB
Avenue E					
16 to 14th	1,100	2,100	57.0 dB	59.0 dB	2.0 dB
14th to Oak Glen	2,200	5,000	59.5 dB	**62.5 dB**	3.0 dB
East of Oak Glen	13,100	14,600	66.5 dB	67.0 dB	0.5 dB
Calimesa Boulevard					
Oak Glen to Wildwood Cyn	200	1,000	52.5 dB	58.5 dB	6.0 dB
Wildwood Cyn to Ave G	100	4,200	50.5 dB	**64.5 dB**	**14.0 dB**
Colorado Street					
Oak Glen to 8th	1,500	3,200	58.0 dB	**60.5 dB**	2.5 dB
8th to Wildwood Cyn	3,400	3,800	61.0 dB	61.5 dB	0.5 dB
County Line Road					
I-10 to Calimesa	34,300	44,200	70.5 dB	71.5 dB	1.0 dB
I-10 Freeway					
Yucaipa to Oak Glen	174,000	174,000	85.5 dB	85.5 dB	0.0 dB
Oak Glen to County Line	161,000	161,000	85.0 dB	85.0 dB	0.0 dB
Live Oak Canyon / Oak Glen Road					
South of Outer Hwy 10 S	10,300	33,400	65.5 dB	70.5 dB	**5.0 dB**
I-10 to Calimesa	26,300	49,700	71.5 dB	73.5 dB	2.0 dB
Calimesa to Ave E	22,800	34,500	70.0 dB	71.5 dB	1.5 dB
Ave E to Yucaipa	5,500	11,700	63.0 dB	**66.0 dB**	3.0 dB
Outer Highway 10 South					
Hilltop to 16th	12,500	15,600	67.0 dB	68.0 dB	1.0 dB
16th to Live Oak Cyn	300	3,200	52.5 dB	61.5 dB	9.0 dB
Wildwood Canyon Road					
Calimesa to Colorado	100	100	49.0 dB	49.0 dB	0.0 dB

Note: Shaded cell indicates significant impact.

- Referring to Table 7-3, by the year 2030, and *without* the proposed freeway interchange at Wildwood Canyon Road, traffic associated with implementation of the proposed Specific Plan would result in a substantial permanent increase (i.e., 5 dB or more) in the ambient noise level at off-site locations adjacent to the following street segments:

  - Calimesa Boulevard between Oak Glen Road and Avenue G,
  - Live Oak Canyon Road south of Outer Highway 10 South, and
  - Outer Highway 10 South between 16th Street and Live Oak Canyon Road.

Therefore the impact is significant at these off-site locations, with the following exceptions: (1) there are no residences adjacent to Calimesa Boulevard between Oak Glen and Wildwood Canyon so no significant impact is assessed for this street segment; and (2) there are no residences adjacent to Outer Highway 10 S between 16th and Live Oak Canyon so no significant impact is assessed for this street segment.

- Referring to Table 7-3, by the year 2030, and *without* the proposed freeway interchange at Wildwood Canyon Road, implementation of the proposed Specific Plan would result in an increase in the traffic-generated Ldn above the 60 dB threshold of significance at off-site residences adjacent to the following street segments:

  - 16th Street north between Outer Highway 10 S and Avenue E,
  - Avenue E between 14th Street and Oak Glen Road,
  - Calimesa Boulevard between Wildwood Canyon and Avenue G, and
  - Colorado Street between Oak Glen and 8th Street.

  Therefore the impact would be significant at these off-site locations.

- Referring to Table 7-3, by the year 2030, and *without* the proposed freeway interchange at Wildwood Canyon Road, implementation of the proposed Specific Plan would result in an increase in the traffic-generated Ldn above the 65 dB threshold of significance at off-site residences adjacent to Oak Glen Road between Avenue E and Yucaipa Boulevard. Therefore the impact would be significant at these off-site locations.

Table 7-4. Traffic Noise Contours, Year 2030, Without Wildwood Canyon Interchange, With Project

Street Segment	Unmitigated Ldn @ 50'	Distance to Ldn Contour Line				
		60 dB	65 dB	70 dB	75 dB	80 dB
14th Street						
North of Oak Glen	62.5 dB	83'	---	---	---	---
South of Kentucky	63.5 dB	100'	---	---	---	---
16th Street						
Outer Hwy 10 South to Ave E	60.5 dB	56'	---	---	---	---
Avenue E						
16 to 14th	59.0 dB	---	---	---	---	---
14th to Oak Glen	62.5 dB	83'	---	---	---	---
East of Oak Glen	67.0 dB	185'	75'	---	---	---
Calimesa Boulevard						
Oak Glen to Wildwood Cyn	58.5 dB	---	---	---	---	---
Wildwood Cyn to Ave G	64.5 dB	120'	---	---	---	---
Colorado Street						
Oak Glen to 8th	60.5 dB	56'	---	---	---	---
8th to Wildwood Cyn	61.5 dB	69'	---	---	---	---
County Line Road						
I-10 to Calimesa	71.5 dB	368'	170'	69'	---	---
I-10 Freeway						
Yucaipa to Oak Glen	85.5 dB	1,725'	**1,100'**	**640'**	**320'**	**143'**
Oak Glen to County Line	85.0 dB	1,650'	**1,050'**	**600'**	**300'**	**130'**
Live Oak Canyon / Oak Glen Road						
South of Outer Hwy 10 S	70.5 dB	320'	**143'**	**56'**	---	---
I-10 to Calimesa	73.5 dB	490'	235'	100'	---	---
Calimesa to Ave E	71.5 dB	368'	170'	69'	---	---
Ave E to Yucaipa	66.0 dB	155'	62'	---	---	---
Outer Highway 10 South						
Hilltop to 16th	68.0 dB	215'	90'	---	---	---
16th to Live Oak Cyn	61.5 dB	69'	---	---	---	---
Wildwood Canyon Road						
Calimesa to Colorado	49.0 dB	---	---	---	---	---

Note: Shaded cell indicates significant impact.

- Referring to Table 7-4, by the year 2030, and *without* the proposed freeway interchange at Wildwood Canyon Road, the exterior Ldn is expected to exceed the 65 dB threshold of significance at residences, schools, offices and parks at the following locations on the proposed Specific Plan site:

  - Within about 1,100 feet of the I-10 freeway,
  - Within about 143 feet of Live Oak Canyon Road, south of Outer Highway 10 South.

  At these locations the impact of traffic noise is significant. It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

Table 7-5. Traffic Noise Exposure Levels, Year 2030, With Wildwood Canyon Interchange

Street Segment	Average Daily Traffic		Ldn at 50' from Near Lane Centerline		Change in Ldn Due to Project
	Without Project	With Project	Without Project	With Project	
14th Street					
North of Oak Glen	3,400	6,400	61.0 dB	62.5 dB	1.5 dB
South of Kentucky	3,500	6,100	61.0 dB	63.5 dB	2.5 dB
16th Street					
Outer Hwy 10 South to Ave E	1,200	4,300	57.0 dB	**62.0 dB**	**5.0 dB**
Avenue E					
16 to 14th	1,200	2,400	57.0 dB	59.5 dB	2.5 dB
14th to Oak Glen	2,000	4,600	59.0 dB	**62.0 dB**	3.0 dB
East of Oak Glen	15,500	15,900	67.0 dB	67.0 dB	0.0 dB
Calimesa Boulevard					
Oak Glen to Wildwood Cyn	100	100	50.5 dB	50.5 dB	0.0 dB
Wildwood Cyn to Ave G	100	800	50.5 dB	57.5 dB	7.0 dB
Colorado Street					
Oak Glen to 8th	N/A	N/A	N/A	N/A	N/A
8th to Wildwood Cyn	2,100	2,300	59.5 dB	59.5 dB	0.0 dB
County Line Road					
I-10 to Calimesa	29,900	35,600	70.0 dB	70.5 dB	0.5 dB
I-10 Freeway					
Yucaipa to Oak Glen	174,000	174,000	85.5 dB	85.5 dB	0.0 dB
Oak Glen to County Line	161,000	161,000	85.0 dB	85.0 dB	0.0 dB
Live Oak Canyon / Oak Glen Road					
South of Outer Hwy 10 S	10,600	16,800	65.5 dB	67.5 dB	2.0 dB
I-10 to Calimesa	22,500	40,200	71.0 dB	72.5 dB	1.5 dB
Calimesa to Ave E	21,200	33,100	69.5 dB	71.5 dB	2.0 dB
Ave E to Yucaipa	6,200	12,900	63.5 dB	**66.5 dB**	3.0 dB
Outer Highway 10 South					
Hilltop to 16th	12,500	16,500	67.0 dB	68.5 dB	1.5 dB
16th to Live Oak Cyn	300	1,700	52.5 dB	59.0 dB	6.5 dB
Wildwood Canyon Road					
Calimesa to Colorado	11,500	28,400	67.0 dB	69.5 dB	2.5 dB

Note: Shaded cell indicates significant impact.

- Referring to Table 7-5, by the year 2030, and *with* the proposed freeway interchange at Wildwood Canyon Road, traffic associated with implementation of the proposed Specific Plan would result in a substantial permanent increase (i.e., 5 dB or more) in the ambient noise level at off-site locations adjacent to the following street segments:

  - 16th Street between Outer Highway 10 S and Avenue E,
  - Calimesa Boulevard between Wildwood Canyon Road and Avenue G, and
  - Outer Highway 10 South between 16th Street and Live Oak Canyon Road.

  Therefore the impact would be significant at these off-site locations, with the following exceptions: (1) the Ldn will remain below the 60 dB threshold of significance at residences adjacent to Calimesa between Wildwood Canyon and Avenue G so no significant impact is

assessed for this street segment; and (2) there are no residences adjacent to Outer Highway 10 S between 16th and Live Oak Canyon so no significant impact is assessed for this street segment.

- Referring to Table 7-5, by the year 2030, and *with* the proposed freeway interchange at Wildwood Canyon Road, implementation of the proposed Specific Plan would result in an increase in the traffic-generated Ldn above the 60 dB threshold of significance at off-site residences adjacent to the following street segments:

  - 16th Street north between Outer Highway 10 S and Avenue E, and
  - Avenue E between 14th Street and Oak Glen Road.

  Therefore the impact would be significant at these off-site locations.

- Referring to Table 7-5, by the year 2030, and *with* the proposed freeway interchange at Wildwood Canyon Road, implementation of the proposed Specific Plan would result in an increase in the traffic-generated Ldn above the 65 dB threshold of significance at off-site residences adjacent to Oak Glen Road between Avenue E and Yucaipa Boulevard. Therefore the impact would be significant at these off-site locations.

Table 7-6. Traffic Noise Contours, Year 2030, With Wildwood Canyon Interchange, With Project

Street Segment	Unmitigated Ldn @ 50'	Distance to Ldn Contour Line				
		60 dB	65 dB	70 dB	75 dB	80 dB
14th Street						
North of Oak Glen	62.5 dB	83'	---	---	---	---
South of Kentucky	63.5 dB	100'	---	---	---	---
16th Street						
Outer Hwy 10 South to Ave E	62.0 dB	75'	---	---	---	---
Avenue E						
16 to 14th	59.5 dB	---	---	---	---	---
14th to Oak Glen	62.0 dB	75'	---	---	---	---
East of Oak Glen	67.0 dB	185'	75'	---	---	---
Calimesa Boulevard						
Oak Glen to Wildwood Cyn	50.5 dB	---	---	---	---	---
Wildwood Cyn to Ave G	57.5 dB	---	---	---	---	---
Colorado Street						
Oak Glen to 8th	N/A	N/A	N/A	N/A	N/A	N/A
8th to Wildwood Cyn	59.5 dB	---	---	---	---	---
County Line Road						
I-10 to Calimesa	70.5 dB	320'	143'	56'	---	---
I-10 Freeway						
Yucaipa to Oak Glen	85.5 dB	1,725'	**1,100'**	**640'**	**320'**	**143'**
Oak Glen to County Line	85.0 dB	1,650'	**1,050'**	**600'**	**300'**	**130'**
Live Oak Canyon / Oak Glen Road						
South of Outer Hwy 10 S	67.5 dB	200'	**83'**	--	---	---
I-10 to Calimesa	72.5 dB	428'	200'	83'	---	---
Calimesa to Ave E	71.5 dB	368'	170'	69'	---	---
Ave E to Yucaipa	66.5 dB	170'	69'	---	---	---
Outer Highway 10 South						
Hilltop to 16th	68.5 dB	235'	100'	---	---	---
16th to Live Oak Cyn	59.0 dB	---	---	---	---	---
Wildwood Canyon Road						
Calimesa to Colorado	69.5 dB	278'	**120'**	---	---	---

Note: Shaded cell indicates significant impact.

- Referring to Table 7-6, by the year 2030, and *with* the proposed freeway interchange at Wildwood Canyon Road, the exterior Ldn is expected to exceed the 65 dB threshold of significance at residences, schools, offices and parks at the following locations on the proposed Specific Plan site:

  - Within about 1,100 feet of the I-10 freeway,
  - Within about 83 feet of Live Oak Canyon Road, south of Outer Highway 10 South, and
  - Within about 120 feet of Wildwood Canyon Road, between Calimesa and Colorado.

  At these locations the impact of traffic noise is significant. It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

Traffic volumes on the interior roadways within the Specific Plan site have not yet been established. However, it is reasonable to assume that a potentially significant impact may occur at residences located adjacent to one or more of the major on-site roadways.

7.3.2 Truck Deliveries and Loading Dock Activities

Truck deliveries and/or loading dock activities may be associated with future development projects in areas of the proposed Specific Plan that are designated as commercial. Based on measurements obtained as part of other projects, the unmitigated noise levels produced by loading dock activities may exceed the City of Yucaipa standards, depending on where the loading docks are located relative to the nearby properties. Therefore, the impact is potentially significant.

As well as the activities in the loading docks, there would be noise associated with the arrival and departure of the delivery trucks themselves. As these trucks drive to the loading docks store they could pass by neighboring sensitive properties. Depending on where the truck driveways are located relative to the nearby properties, the unmitigated noise levels may exceed the City of Yucaipa standards. Therefore, the impact is potentially significant.

It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

7.3.3 Parking Lot Activities

Parking lots may be associated with future development projects in areas of the proposed Specific Plan that are designated as commercial. The predominant noise sources associated with parking lot activities include car doors slamming; cars starting; cars accelerating away from the parking stalls; and people talking, shouting and laughing. Parking lot activities at the Specific Plan commercial areas will be sporadic in nature. Depending on where a parking lot is located relative to the nearby properties, the unmitigated noise levels produced by its activities may exceed the City of Yucaipa standards. Therefore, the impact is potentially significant.

It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

7.3.4 Mechanical Equipment

Mechanical equipment noise will be associated with the commercial areas of the proposed Specific Plan. Depending on the type of equipment and where it is located relative to the nearby properties, the unmitigated noise levels produced by the mechanical equipment may exceed the City of Yucaipa standards. Therefore, the impact is potentially significant.

It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

7.3.5 School Activities

Referring to Figure 1-1, an elementary school may be located on the project site. However, because of the large distances involved to off-site sensitive receptors (over 2,000 feet), no significant impact is anticipated from school activities at these locations. Depending on where the schoolyard is located relative to nearby properties on the Specific Plan site, the unmitigated noise levels produced by the activities may exceed the City of Yucaipa standards. Therefore, the impact is potentially significant.

It should be noted that this assessment assumes no mitigation from future buildings, walls, or topography.

8 Summary of Impacts

Using the criteria established in this Noise Study, the following may be concluded regarding the impact of the proposed Specific Plan:

- Implementation of the proposed Specific Plan will result in the exposure of persons to transportation-related noise levels in excess of standards established in the City of Yucaipa's General Plan. This significant impact will occur at existing off-site noise-sensitive properties adjacent to segments of 16th Street, Avenue E, Calimesa Boulevard, Colorado Street, and Oak Glen Road. It will also occur at proposed on-site noise-sensitive land uses adjacent to I-10, a segment of Live Oak Canyon Road, and a segment of Wildwood Canyon Road. A significant impact may occur at proposed noise-sensitive properties adjacent to future major interior roadways within the Specific Plan site.
- Implementation of the proposed Specific Plan may result in exposure of persons to noise levels in excess of standards established in the City of Yucaipa's Municipal Code and Development Code. This potentially significant impact may occur at existing off-site noise-sensitive properties in the near vicinity of the proposed commercial land uses. It may also occur at proposed on-site noise-sensitive land uses in the near vicinity of the wastewater treatment facility, the proposed commercial land uses, and the proposed school site.
- Implementation of the proposed Specific Plan would not result in generation of excessive ground-borne vibration or ground-borne noise levels. Therefore, the impact is not significant.
- Implementation of the proposed Specific Plan would result in a substantial permanent increase in ambient noise levels in the vicinity of the Specific Plan site above levels existing without the proposed Specific Plan as a result of activities at the site. This significant impact will occur at existing off-site noise-sensitive properties adjacent to segments of 16th Street, Calimesa Boulevard, and Live Oak Canyon Road.
- Construction of future development projects on the Specific Plan site may produce a substantial temporary or periodic increase in ambient noise levels on-site or in the vicinity above levels

existing without the proposed Specific Plan. However, construction activities that comply with the time and day restrictions provided in the City of Yucaipa Municipal Code are not required to comply with any noise limitations. Therefore, the impact is not significant.

9 Mitigation Measures

Future development projects on the Specific Plan site will be required by the City of Yucaipa to comply with the City's typical Conditions of Approval for tentative tract maps and conditional use permits. These Conditions of Approval are sufficient to mitigate all significant impacts on the Specific Plan site. No additional mitigation measures are necessary or required.

10 Significant Unavoidable Impacts

As indicated in Section 8 of this report, traffic associated with implementation of the proposed Specific Plan will increase the Ldn above the threshold of significance and/or increase the ambient traffic noise level by a substantial amount at existing off-site noise-sensitive receptors adjacent to the following streets:

- 16th Street north between Outer Highway 10 S and Avenue E,
- Avenue E between 14th Street and Oak Glen Road,
- Calimesa Boulevard between Wildwood Canyon Road and Avenue G,
- Colorado Street between Oak Glen and north of Wildwood Canyon Road,
- Live Oak Canyon Road south of Outer Highway 10 South, and
- Oak Glen Road between Avenue E and Yucaipa Boulevard.

Therefore, a significant impact has been assessed at these locations. However, it is not considered practical or feasible to mitigate these impacts, as it would require making alterations to private off-site properties over which applicants of future development projects would have no control.

11 Project Alternative

Only the "No Project" alternative has been considered in this study. Under this alternative, the status quo would be maintained and the proposed Specific Plan would not be built. However, development in the area would continue in accordance with the City of Yucaipa General Plan and zoning map. Traffic volumes on the arterials, and hence traffic noise levels, would increase as the area grows. This is illustrated in Tables 7-3 through 7-6 for "Future Year (2030)" conditions "without project". New noise sources associated with the proposed Specific Plan would not be introduced into the study area.

12 References

1. *Traffic Impact Study for Yucaipa Freeway Corridor Specific Plan*. Katz, Okitsu & Associates, Inc. April 4, 2007.
2. *Noise Element of the General Plan for the City of Yucaipa.*
3. *City of Yucaipa Municipal Code*.
4. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. U.S. Environmental Protection Agency. December 31, 1971.
5. *Transit Noise and Vibration Assessment*. Harris, Miller, Miller and Hanson, Inc. April 1995.
6. *Information of Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. U.S. Environmental Protection Agency. March 1974.

APPENDIX I

Noise Measurements

Table I-1. Measured Hourly Noise Levels & Community Noise Equivalent Level, CNEL

Project: Yucaipa Freeway Corridor Specific Plan
Location: #1, residence at 32017 Live Oak Canyon Road
Date: October 12-13, 2005

Measurement Period	Hourly Noise Level, dB(A)		Measurement Period	Hourly Noise Level, dB(A)
12:00 am - 1:00 am	49.4		12:00 pm - 1:00 pm	55.1
1:00 am - 2:00 am	59.0		1:00 pm - 2:00 pm	55.1
2:00 am - 3:00 am	53.5		2:00 pm - 3:00 pm	56.4
3:00 am - 4:00 am	62.4		3:00 pm - 4:00 pm	56.4
4:00 am - 5:00 am	57.8		4:00 pm - 5:00 pm	57.1
5:00 am - 6:00 am	57.1		5:00 pm - 6:00 pm	56.8
6:00 am - 7:00 am	61.4		6:00 pm - 7:00 pm	56.0
7:00 am - 8:00 am	60.9		7:00 pm - 8:00 pm	53.9
8:00 am - 9:00 am	59.6		8:00 pm - 9:00 pm	53.7
9:00 am - 10:00 am	55.0		9:00 pm - 10:00 pm	53.8
10:00 am -11:00 am	55.3		10:00 pm - 11:00 pm	50.6
11:00 am - 12:00 pm	56.0		11:00 pm - 12:00 am	50.5
			CNEL:	***64.3***

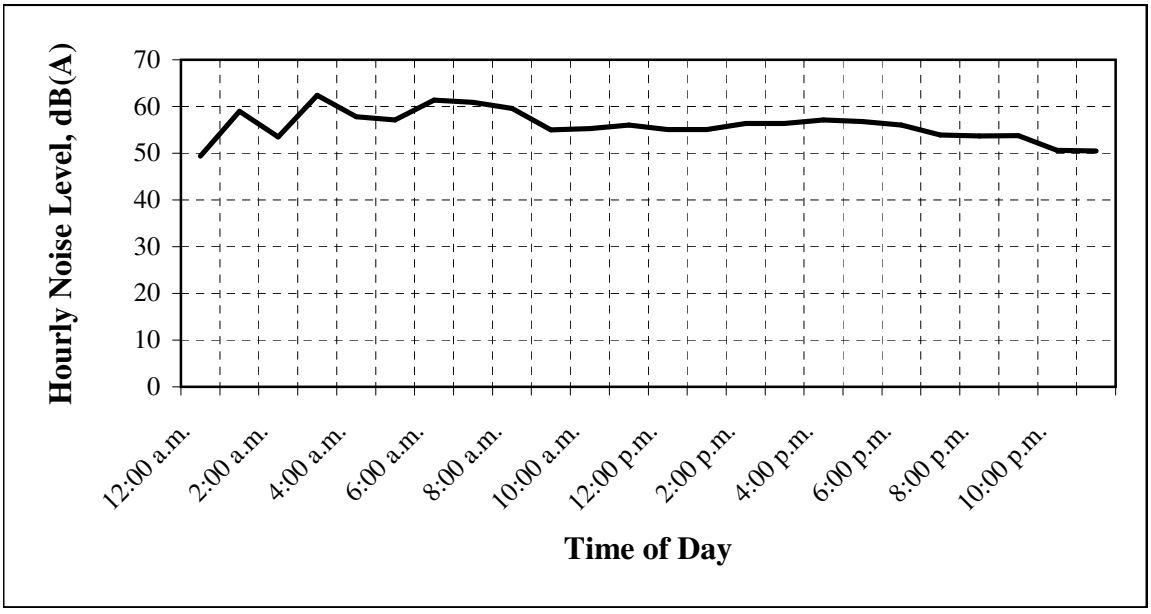


Table I-2. Noise Survey

Project: Yucaipa Freeway Corridor Specific Plan

Position: #2, at YVWD wastewater treatment facility, at north fence line opposite pump house

Date: October 11, 2005

Time: Noted

Noise Source: Wastewater treatment facility

Distance: 50' from pump house

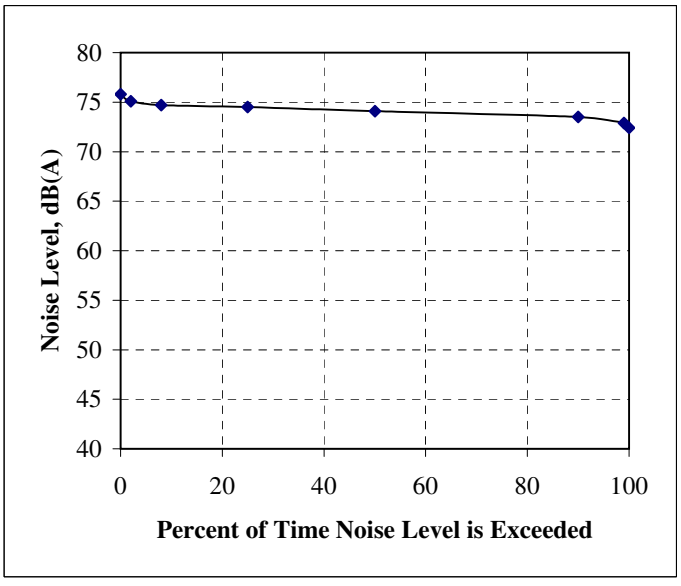
SLM Height: 5'

LD 712 S/N: 0556

LD CAL200 Calibrator S/N: 2916

Operator: Cynthia M. Bordash

	Measurement Period		
	11:32 AM to 11:49 AM	to	to
n*	**Ln**	**Ln**	**Ln**
2	75.1		
8	74.7		
25	74.5		
50	74.1		
90	73.5		
99	72.9		
Leq	74.1		
Lmax	75.8		
Lmin	72.4		



* Leq is the average sound level during the measurement period.
Ln is the sound level exceeded n% of the time during the measurement period.
Lmax and Lmin are the maximum and minimum sound levels during the measurement period.

Table I-3. Noise Survey

Project: Yucaipa Freeway Corridor Specific Plan

Position: #3, outside front gate of YVWD wastewater treatment facility

Date: October 11, 2005

Time: Noted

Noise Source: Wastewater treatment facility

Distance: varies

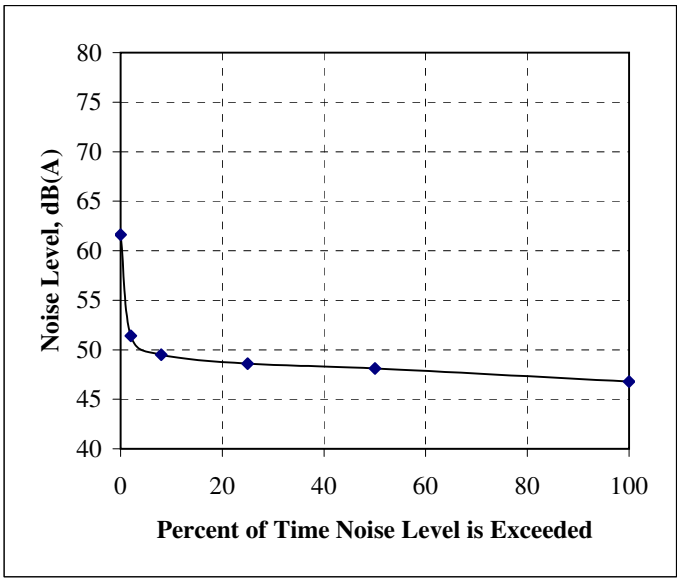
SLM Height: 5'

LD 712 S/N: 0556

LD CAL200 Calibrator S/N: 2916

Operator: Cynthia M. Bordash

	Measurement Period		
	12:15 PM to 12:40 PM	to	to
n*	**Ln**	**Ln**	**Ln**
2	51.4		
8	49.5		
25	48.6		
50	48.1		
90			
99			
Leq	48.6		
Lmax	61.6		
Lmin	46.8		



* Leq is the average sound level during the measurement period.
Ln is the sound level exceeded n% of the time during the measurement period.
Lmax and Lmin are the maximum and minimum sound levels during the measurement period.

Table I-4. Measured Hourly Noise Levels & Community Noise Equivalent Level, CNEL

Project: Yucaipa Freeway Corridor Specific Plan
Location: #4, residence at 33600 Calimesa Boulevard, Unit 190
Date: October 12-13, 2005

Measurement Period	Hourly Noise Level, dB(A)		Measurement Period	Hourly Noise Level, dB(A)
12:00 am - 1:00 am	61.9		12:00 pm - 1:00 pm	65.7
1:00 am - 2:00 am	61.5		1:00 pm - 2:00 pm	65.1
2:00 am - 3:00 am	60.7		2:00 pm - 3:00 pm	65.8
3:00 am - 4:00 am	61.1		3:00 pm - 4:00 pm	65.9
4:00 am - 5:00 am	63.9		4:00 pm - 5:00 pm	66.2
5:00 am - 6:00 am	64.7		5:00 pm - 6:00 pm	67.5
6:00 am - 7:00 am	65.6		6:00 pm - 7:00 pm	66.1
7:00 am - 8:00 am	66.3		7:00 pm - 8:00 pm	65.3
8:00 am - 9:00 am	64.6		8:00 pm - 9:00 pm	66.1
9:00 am - 10:00 am	64.6		9:00 pm - 10:00 pm	64.4
10:00 am -11:00 am	63.7		10:00 pm - 11:00 pm	63.4
11:00 am - 12:00 pm	64.9		11:00 pm - 12:00 am	62.4
			CNEL:	***70.4***

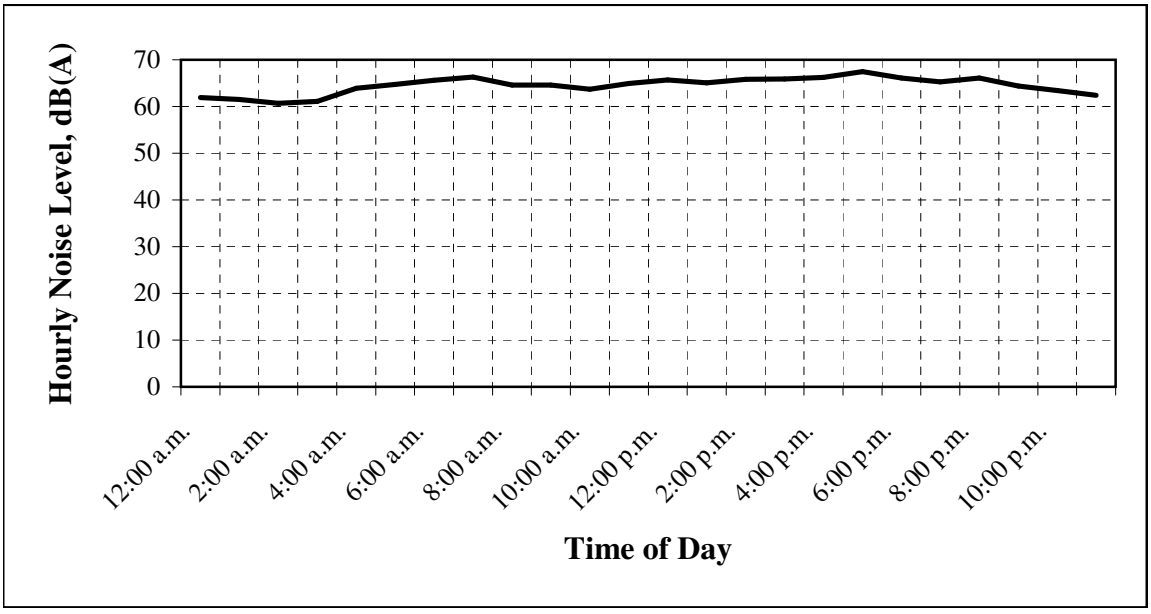
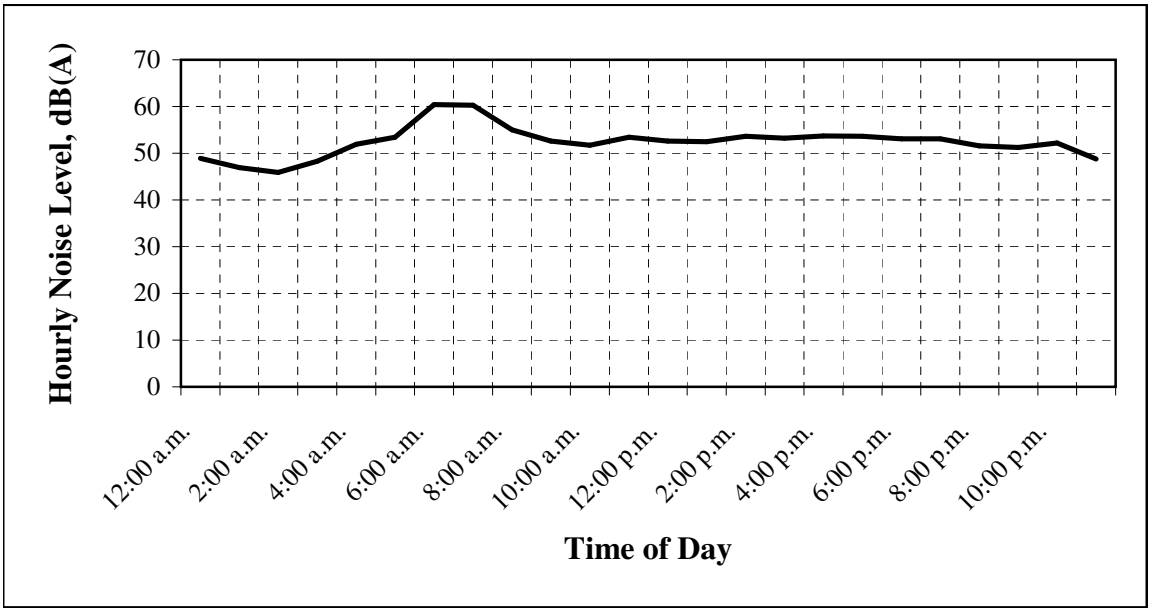


Table I-5. Measured Hourly Noise Levels & Community Noise Equivalent Level, CNEL

Project: Yucaipa Freeway Corridor Specific Plan
Location: #5, Unit 108 at the Wildwood Mobile Home Park
Date: October 11-12, 2005

Measurement Period	Hourly Noise Level, dB(A)		Measurement Period	Hourly Noise Level, dB(A)
12:00 am - 1:00 am	48.9		12:00 pm - 1:00 pm	52.6
1:00 am - 2:00 am	46.9		1:00 pm - 2:00 pm	52.5
2:00 am - 3:00 am	45.9		2:00 pm - 3:00 pm	53.6
3:00 am - 4:00 am	48.3		3:00 pm - 4:00 pm	53.2
4:00 am - 5:00 am	51.9		4:00 pm - 5:00 pm	53.7
5:00 am - 6:00 am	53.4		5:00 pm - 6:00 pm	53.6
6:00 am - 7:00 am	60.4		6:00 pm - 7:00 pm	53.1
7:00 am - 8:00 am	60.3		7:00 pm - 8:00 pm	53.1
8:00 am - 9:00 am	55.0		8:00 pm - 9:00 pm	51.6
9:00 am - 10:00 am	52.6		9:00 pm - 10:00 pm	51.2
10:00 am -11:00 am	51.7		10:00 pm - 11:00 pm	52.2
11:00 am - 12:00 pm	53.4		11:00 pm - 12:00 am	48.8
			CNEL:	***60.1***



APPENDIX II

Traffic Noise Analysis

Table II-1. Distance to Existing (2006) Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Existing Contours From Near Lane Centerline, feet				
				Med.	Hvy	2006	2006	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	1	35	AT	1.8%	0.7%	6,800	63.5	100	---	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	3	50	AT	1.8%	0.7%	10,500	68.5	235	100	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%	5,000	65.0	130	50	---	---	---
COLORADO STREET												
North of Wildwood Canyon	1	35	AT	1.8%	0.7%	2,300	59.5	---	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	18,400	68.0	215	90	---	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	116,000	83.5	1,450	905	490	235	100
Oak Glen to County Line	7	65	AT	5.4%	10.6%	107,000	83.0	1,400	860	460	215	90
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	4,800	62.5	83	---	---	---	---
I-10 to Calimesa	3	45	AT	1.8%	0.7%	24,400	71.0	340	155	62	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	14,400	68.0	215	90	---	---	---
OUTER HIGHWAY 10 SOUTH												
West of Live Oak Canyon	2	40	AT	1.8%	0.7%	2,800	61.0	62	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	2	40	AT	1.8%	0.7%	7,300	65.0	130	50	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.

Table II-2. Distance to Near-Term (2008) Without Project Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Near-Term (2008) Without Project Contours From Near Lane Centerline, feet				
				Med.	Hvy	2008	2008	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	1	35	AT	1.8%	0.7%	7,300	64.0	110	---	---	---	---
South of Kentucky	1	35	AT	1.8%	0.7%	5,400	63.0	90	---	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	3	50	AT	1.8%	0.7%	11,100	68.5	235	100	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%	5,800	65.5	143	56	---	---	---
COLORADO STREET												
North of Wildwood Canyon	1	35	AT	1.8%	0.7%	2,500	60.0	50	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	19,300	68.0	215	90	---	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	123,000	83.5	1,450	905	490	235	100
Oak Glen to County Line	7	65	AT	5.4%	10.6%	113,000	83.0	1,400	860	460	215	90
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	5,100	62.5	83	---	---	---	---
I-10 to Calimesa	3	45	AT	1.8%	0.7%	27,600	72.0	395	185	75	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	15,200	68.0	215	90	---	---	---
OUTER HIGHWAY 10 SOUTH												
West of Live Oak Canyon	2	40	AT	1.8%	0.7%	3,400	61.5	69	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	2	40	AT	1.8%	0.7%	7,700	65.0	130	50	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.
Traffic volumes on I-10 freeway estimated using 2% growth per year, per Traffic Study.

Table II-3. Distance to Near-Term (2008) With Project Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Near-Term (2008) With Project Contours From Near Lane Centerline, feet				
				Med.	Hvy	2008	2008	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	4	35	AT	1.8%	0.7%	9,500	64.0	110	---	---	---	---
South of Kentucky	1	35	AT	1.8%	0.7%	7,600	64.0	110	---	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	6	50	AT	1.8%	0.7%	11,900	68.0	215	90	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%							
COLORADO STREET												
North of Wildwood Canyon	1	35	AT	1.8%	0.7%	2,900	60.5	56	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	27,800	69.5	278	120	---	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	123,000	83.5	1,450	905	490	235	100
Oak Glen to County Line	7	65	AT	5.4%	10.6%	113,000	83.0	1,400	860	460	215	90
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	7,100	64.0	110	---	---	---	---
I-10 to Calimesa	6	45	AT	1.8%	0.7%	37,100	72.0	395	185	75	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	27,200	70.5	320	143	56	---	---
OUTER HIGHWAY 10 SOUTH												
West of Live Oak Canyon	2	40	AT	1.8%	0.7%	3,700	62.0	75	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	2	40	AT	1.8%	0.7%	7,700	65.0	130	50	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.
Traffic volumes on I-10 freeway estimated using 2% growth per year, per Traffic Study.

Table II-4. Distance to Buildout (2030) Without Project Without Interchange Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Buildout (2030) W/O Project W/O Interchange Contours From Near Lane Centerline, feet				
				Med.	Hvy	2030	2030	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	1	35	AT	1.8%	0.7%	4,000	61.5	69	---	---	---	---
South of Kentucky	1	35	AT	1.8%	0.7%	4,200	62.0	75	---	---	---	---
16TH STREET												
Outer Highway 10 South to Avenue E	1	35	AT	1.8%	0.7%	1,600	58.0	---	---	---	---	---
AVENUE E												
16th to 14th	1	35	AT	1.8%	0.7%	1,100	57.0	---	---	---	---	---
14th to Oak Glen	1	35	AT	1.8%	0.7%	2,200	59.5	---	---	---	---	---
East of Oak Glen	5	40	AT	1.8%	0.7%	13,100	66.5	170	69	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	3	50	AT	1.8%	0.7%	200	52.5	---	---	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%	100	50.5	---	---	---	---	---
COLORADO STREET												
Oak Glen to 8th	1	35	AT	1.8%	0.7%	1,500	58.0	---	---	---	---	---
8th to Wildwood Canyon	1	35	AT	1.8%	0.7%	3,400	61.0	62	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	34,300	70.5	320	143	56	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	174,000	85.5	1,725	1,100	640	320	143
Oak Glen to County Line	7	65	AT	5.4%	10.6%	161,000	85.0	1,650	1,050	600	300	130
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	10,300	65.5	143	56	---	---	---
I-10 to Calimesa	3	45	AT	1.8%	0.7%	26,300	71.5	368	170	69	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	22,800	70.0	300	130	50	---	---
Avenue E to Yucaipa	5	40	AT	1.8%	0.7%	5,500	63.0	90	---	---	---	---
OUTER HIGHWAY 10 SOUTH												
Hilltop to 16th	2	40	AT	1.8%	0.7%	12,500	67.0	185	75	---	---	---
16th to Live Oak Canyon	2	40	AT	1.8%	0.7%	300	52.5	---	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	2	40	AT	1.8%	0.7%	100	49.0	---	---	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.
Traffic volumes on I-10 freeway estimated using 2% growth per year, per Traffic Study.

Table II-5. Distance to Buildout (2030) With Project Without Interchange Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Buildout (2030) W/ Project W/O Interchange Contours From Near Lane Centerline, feet				
				Med.	Hvy	2030	2030	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	4	35	AT	1.8%	0.7%	6,300	62.5	83	---	---	---	---
South of Kentucky	1	35	AT	1.8%	0.7%	6,300	63.5	100	---	---	---	---
16TH STREET												
Outer Highway 10 South to Avenue E	1	35	AT	1.8%	0.7%	3,000	60.5	56	---	---	---	---
AVENUE E												
16th to 14th	1	35	AT	1.8%	0.7%	2,100	59.0	---	---	---	---	---
14th to Oak Glen	1	35	AT	1.8%	0.7%	5,000	62.5	83	---	---	---	---
East of Oak Glen	5	40	AT	1.8%	0.7%	14,600	67.0	185	75	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	6	50	AT	1.8%	0.7%	1,000	58.5	---	---	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%	4,200	64.5	120	---	---	---	---
COLORADO STREET												
Oak Glen to 8th	1	35	AT	1.8%	0.7%	3,200	60.5	56	---	---	---	---
8th to Wildwood Canyon	1	35	AT	1.8%	0.7%	3,800	61.5	69	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	44,200	71.5	368	170	69	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	174,000	85.5	1,725	1,100	640	320	143
Oak Glen to County Line	7	65	AT	5.4%	10.6%	161,000	85.0	1,650	1,050	600	300	130
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	33,400	70.5	320	143	56	---	---
I-10 to Calimesa	6	45	AT	1.8%	0.7%	49,700	73.5	490	235	100	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	34,500	71.5	368	170	69	---	---
Avenue E to Yucaipa	5	40	AT	1.8%	0.7%	11,700	66.0	155	62	---	---	---
OUTER HIGHWAY 10 SOUTH												
Hilltop to 16th	2	40	AT	1.8%	0.7%	15,600	68.0	215	90	---	---	---
16th to Live Oak Canyon	2	40	AT	1.8%	0.7%	3,200	61.5	69	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	5	40	AT	1.8%	0.7%	100	49.0	---	---	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.
Traffic volumes on I-10 freeway estimated using 2% growth per year, per Traffic Study.

Table II-6. Distance to Buildout (2030) Without Project With Interchange Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Buildout (2030) W/O Project W/ Interchange Contours From Near Lane Centerline, feet				
				Med.	Hvy	2030	2030	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	1	35	AT	1.8%	0.7%	3,400	61.0	62	---	---	---	---
South of Kentucky	1	35	AT	1.8%	0.7%	3,500	61.0	62	---	---	---	---
16TH STREET												
Outer Highway 10 South to Avenue E	1	35	AT	1.8%	0.7%	1,200	57.0	---	---	---	---	---
AVENUE E												
16th to 14th	1	35	AT	1.8%	0.7%	1,200	57.0	---	---	---	---	---
14th to Oak Glen	1	35	AT	1.8%	0.7%	2,000	59.0	---	---	---	---	---
East of Oak Glen	5	40	AT	1.8%	0.7%	15,500	67.0	185	75	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	3	50	AT	1.8%	0.7%	100	50.5	---	---	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%	100	50.5	---	---	---	---	---
COLORADO STREET												
Oak Glen to 8th	1	35	AT	1.8%	0.7%							
8th to Wildwood Canyon	1	35	AT	1.8%	0.7%	2,100	59.0	---	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	29,900	70.0	300	130	50	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	174,000	85.5	1,725	1,100	640	320	143
Oak Glen to County Line	7	65	AT	5.4%	10.6%	161,000	85.0	1,650	1,050	600	300	130
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	10,600	65.5	143	56	---	---	---
I-10 to Calimesa	3	45	AT	1.8%	0.7%	22,500	71.0	340	155	62	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	21,200	69.5	278	120	---	---	---
Avenue E to Yucaipa	5	40	AT	1.8%	0.7%	6,200	63.5	100	---	---	---	---
OUTER HIGHWAY 10 SOUTH												
Hilltop to 16th	2	40	AT	1.8%	0.7%	12,500	67.0	185	75	---	---	---
16th to Live Oak Canyon	2	40	AT	1.8%	0.7%	300	52.5	---	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	2	40	AT	1.8%	0.7%	11,500	67.0	185	75	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.
Traffic volumes on I-10 freeway estimated using 2% growth per year, per Traffic Study.

Table II-7. Distance to Buildout (2030) With Project With Interchange Ldn Contour Lines, Yucaipa Specific Plan

Arterial / Reach	Arterial Type*	Speed Limit, mph	Elev.	% Trucks		Avg. Daily Traffic	Ldn @ 50' From Near Lane C/L	Distance to Buildout (2030) W/ Project W/ Interchange Contours From Near Lane Centerline, feet				
				Med.	Hvy	2030	2030	60dB	65dB	70dB	75dB	80dB
14TH STREET												
North of Oak Glen	4	35	AT	1.8%	0.7%	6,400	62.5	83	---	---	---	---
South of Kentucky	1	35	AT	1.8%	0.7%	6,100	63.5	100	---	---	---	---
16TH STREET												
Outer Highway 10 South to Avenue E	1	35	AT	1.8%	0.7%	4,300	62.0	75	---	---	---	---
AVENUE E												
16th to 14th	1	35	AT	1.8%	0.7%	2,400	59.5	---	---	---	---	---
14th to Oak Glen	1	35	AT	1.8%	0.7%	4,600	62.0	75	---	---	---	---
East of Oak Glen	5	40	AT	1.8%	0.7%	15,900	67.0	185	75	---	---	---
CALIMESA BOULEVARD												
Oak Glen to Wildwood Canyon	6	50	AT	1.8%	0.7%	100	50.5	---	---	---	---	---
Wildwood Canyon to Avenue G	3	50	AT	1.8%	0.7%	800	57.5	---	---	---	---	---
COLORADO STREET												
Oak Glen to 8th	1	35	AT	1.8%	0.7%							
8th to Wildwood Canyon	1	35	AT	1.8%	0.7%	2,300	59.5	---	---	---	---	---
COUNTY LINE ROAD												
I-10 to Calimesa	1	35	AT	1.8%	0.7%	35,600	70.5	320	143	56	---	---
I-10 FREEWAY												
Yucaipa to Oak Glen	7	65	AT	5.4%	10.6%	174,000	85.5	1,725	1,100	640	320	143
Oak Glen to County Line	7	65	AT	5.4%	10.6%	161,000	85.0	1,650	1,050	600	300	130
LIVE OAK CANYON/OAK GLEN ROAD												
South of Outer Highway 10 South	1	35	AT	1.8%	0.7%	16,800	67.5	200	83	---	---	---
I-10 to Calimesa	6	45	AT	1.8%	0.7%	40,200	72.5	428	200	83	---	---
Calimesa to Avenue E	6	45	AT	1.8%	0.7%	33,100	71.5	368	170	69	---	---
Avenue E to Yucaipa	5	40	AT	1.8%	0.7%	12,900	66.5	170	69	---	---	---
OUTER HIGHWAY 10 SOUTH												
Hilltop to 16th	2	40	AT	1.8%	0.7%	16,500	68.5	235	100	---	---	---
16th to Live Oak Canyon	2	40	AT	1.8%	0.7%	1,700	59.0	---	---	---	---	---
WILDWOOD CANYON ROAD												
Calimesa to Colorado	5	40	AT	1.8%	0.7%	28,400	69.5	278	120	---	---	---

* Arterial Types: 1) 2 lanes, 35 mph or less; 2) 2 lanes, 40 mph; 3) 2 lanes, 45 mph or more; 4) 4-6 lanes, 35 mph or less; 5) 4-6 lanes, 40 mph; 6) 4-6 lanes, 45 mph or more; 7) 4-6 lane freeway, 55 mph or more; 8) 8 lane freeway, 55 mph or more.

Notes:
AT', 'ABOVE', and 'BELOW' refer to the elevation of the arterial relative to the surrounding area.
Traffic volumes on I-10 freeway estimated using 2% growth per year, per Traffic Study.