Lost Ranch Winery

NOISE IMPACT ANALYSIS

COUNTY OF RIVERSIDE

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Lost Ranch Winery
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels
WWCP	Wine County Community Plan

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Lost Ranch Winery development ("Project"). The Project site is located approximately 4 miles northeast of the City of Temecula within the Wine County Community Plan (WCCP) in Riverside County's jurisdiction. The Project is proposed to consist of the development of a new winery with a 3,500 square foot tasting room. There is no hotel, restaurant, or special events proposed for this new winery. This noise study has been prepared to satisfy applicable County of Riverside noise standards and significance criteria based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

SUMMARY OF CEQA SIGNIFICANCE FINDINGS

The results of this Lost Ranch Winery Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
On-Site Traffic Noise	7	*Less Than Significant*	-
Off-Site Traffic Noise	8	*Less Than Significant*	-
Operational Noise	10	*Less Than Significant*	-
Construction Noise	11	*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Lost Ranch Winery ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents study methods and procedures for noise analysis, evaluates the future on-site exterior noise environment, the off-site traffic noise level increases, the potential Project-related long-term stationary-source operational noise impacts, and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The Project site is located approximately 4 miles northeast of the City of Temecula within the Wine County Community Plan (WCCP) in Riverside County's jurisdiction. The proposed Project is located on the southeast corner of Glen Oaks Road and Rancho California Road along Rancho California Road. Residential land uses are located to the southwest and east, agricultural lands are located to the southeast, and vineyards to the west. Regional access to the Project is provided from Interstate 15 (I-15) via Rancho California Road as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of the development of a new winery with a 3,500 square foot tasting room. There is no hotel, restaurant, or special events proposed for this new winery. The Project is located within the Winery District of the Temecula Valley Wine Country Policy Area. Rancho California Road is designated as a Mountain Arterial (110-foot right-of-way) and Glen Oaks Road is classified as a Collector (74-foot right-of-way) along the Project's frontages. The Project site and surrounding properties are zoned Commercial Citrus/Vineyard (C/V) Wine Country-Existing Winery (WC-W). A preliminary site plan for the Project is shown on Exhibit 1.

EXHIBIT 1-A: LOCATION MAP

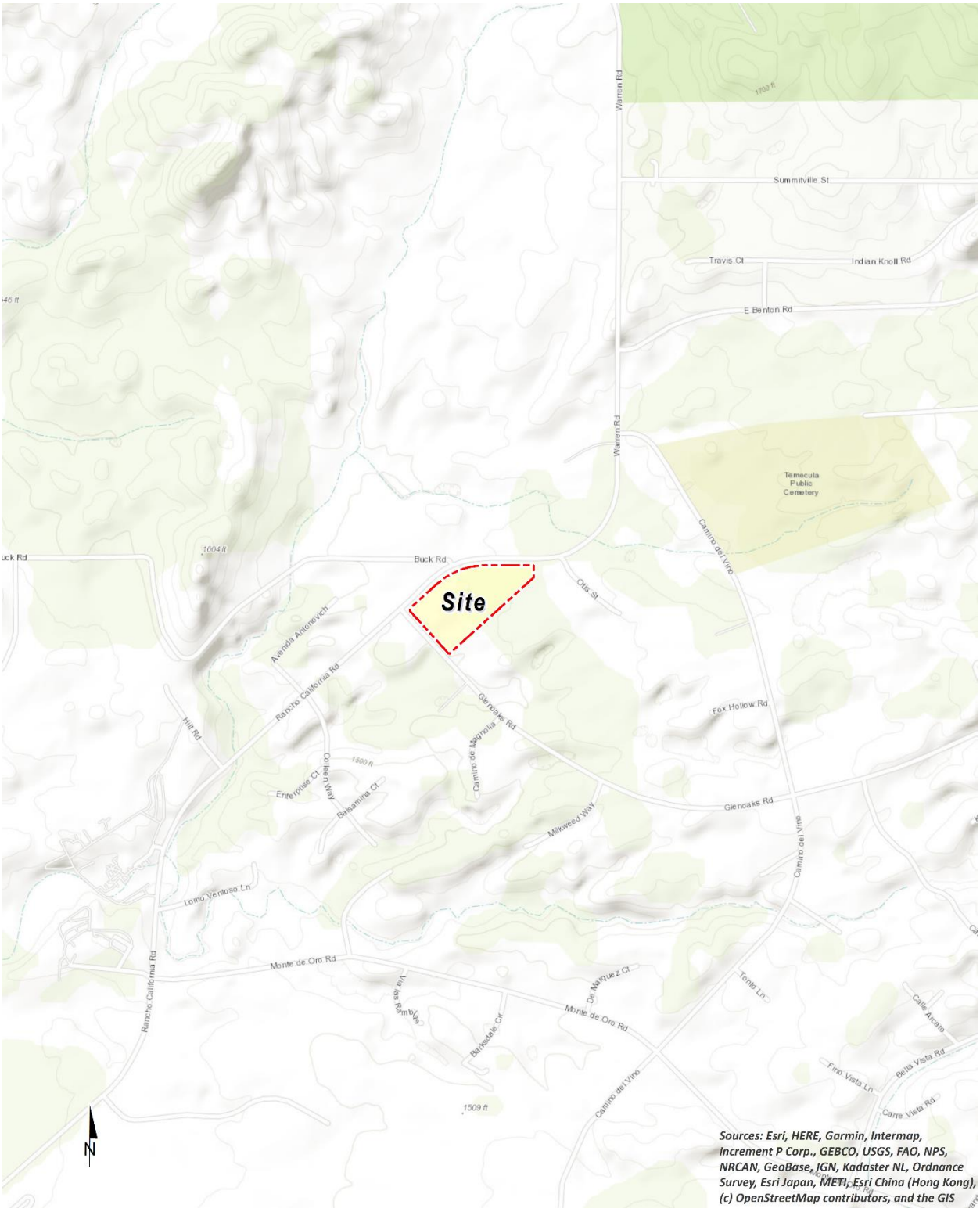
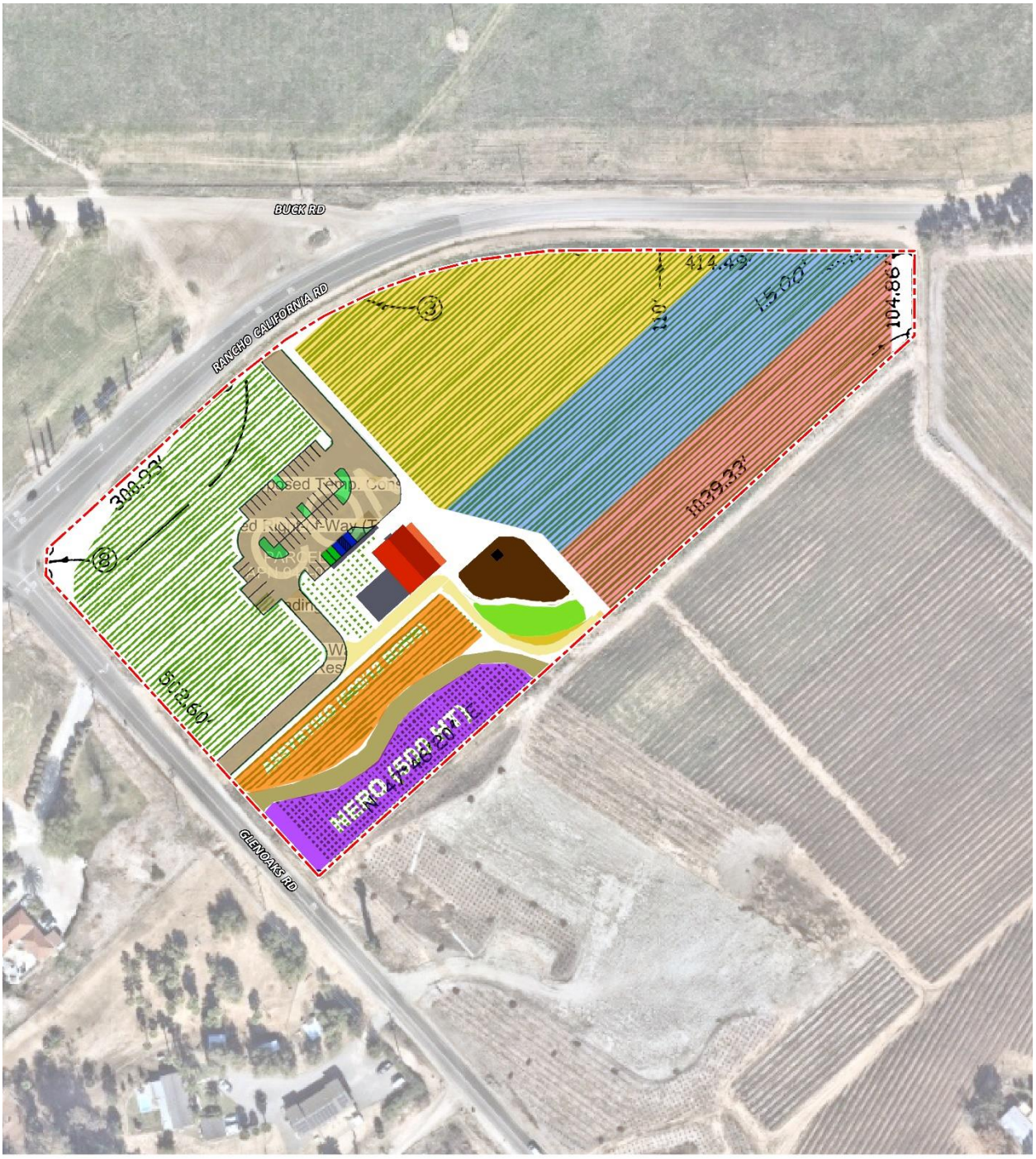


EXHIBIT 1-B: SITE PLAN



LEGEND:

Site Boundary

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2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 100 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period (typically one hour) and is commonly used to describe the "energy average" noise levels within the environment.

To describe the time-varying character of environmental noise, the County of Riverside relies on the L_{25}, L_8, L_2 and L_{max}, percentile noise levels to describe the stationary source noise level limits. The percentile noise descriptors are the noise levels equaled or exceeded during 25 percent, 8 percent, and 2 percent of a stated time. Sound levels associated with the L_8 typically describe transient or short-term events, while levels associated with the L_{25} describe the base or typical noise conditions. The County of Riverside relies on the percentile noise levels to describe the stationary source noise level limits. While the L_{25} describes the noise levels occurring 25 percent of the time, the L_{eq} accounts for the equivalent or energy average observed for the entire hour.

Peak hour or equivalent noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The County of Riverside relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. Based on guidance from the U.S. Department of Transportation, Federal Highway Administration (FHWA), Office of Environment and Planning, Noise and Air Quality Branch, the way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling

of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (4)

2.3.5 REFLECTION

Field studies conducted by the FHWA have shown that the reflection from barriers and buildings does not substantially increase noise levels. (4) If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not

all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by up to 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (4)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (5)

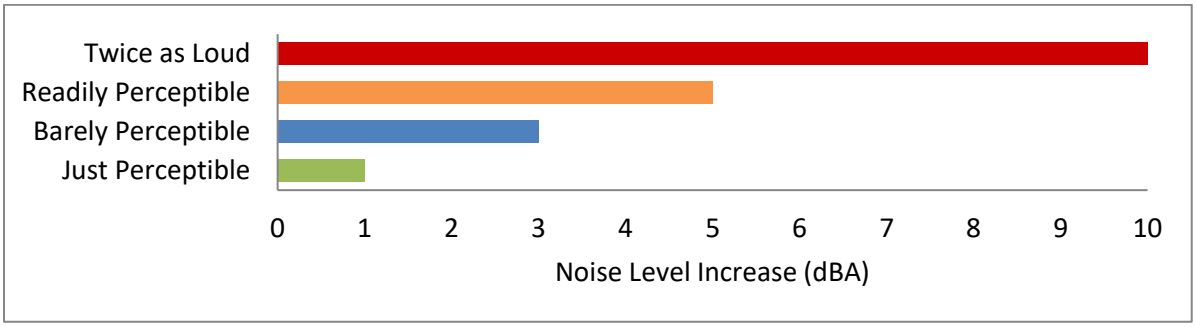
2.7 COMMUNITY RESPONSE TO NOISE

Community responses to noise varies depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities.
- Socio-economic status and educational level.
- Perception that those affected are being unfairly treated.
- Attitudes regarding the usefulness of the noise-producing activity.
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (6) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (6) Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (4)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



2.8 VIBRATION

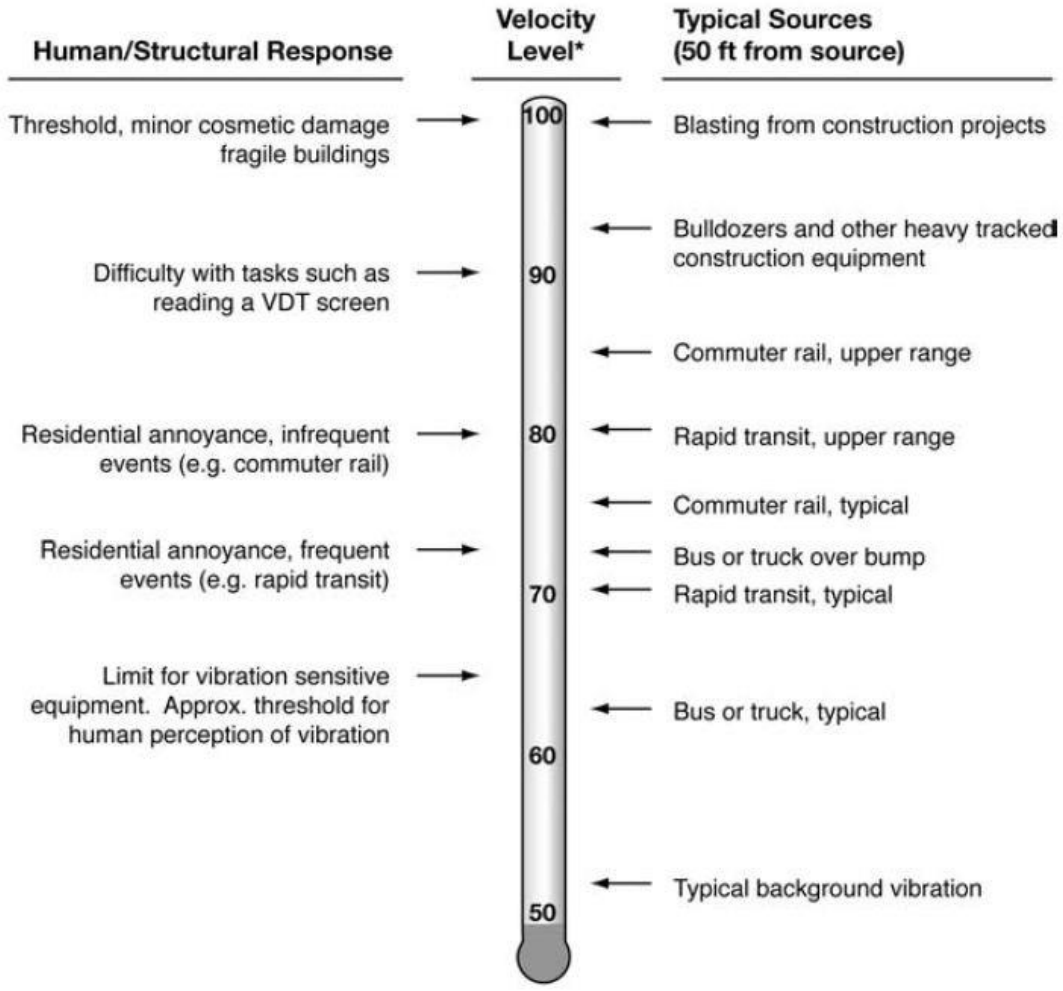
Per the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (7), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with

distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



* RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (8) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 STATE OF CALIFORNIA BUILDING CODE

The State of California's noise insulation standards for dwelling and sleeping units are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Chapter 12, Section 1206 Sound Control. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources within habitable rooms of dwelling and sleeping units. For new construction, the acceptable interior noise limit is 45 dBA CNEL in habitable rooms (9).

Interior noise level requirements for non-residential structures are controlled set by the California Code of Regulations, Title 24, California Green Building Standards Code, Chapter 5, Section 5.507.4 Acoustical Control. These noise standards are applied to new non-residential construction in California for controlling interior noise levels resulting from exterior noise sources within occupied spaces. It does not apply to buildings with few or no occupants or where occupants are not likely to be affected by exterior noise. For new construction, the acceptable interior noise limit is 50 dBA L_{eq} in occupied spaces (10).

3.3 COUNTY OF RIVERSIDE GENERAL PLAN NOISE ELEMENT

The County of Riverside has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the County of Riverside from excessive exposure to noise. (11) The Noise Element specifies the maximum allowable exterior noise levels

for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect County of Riverside residents from excessive noise, the Noise Element contains the following policies related to the Project:

N 1.1 Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

N 1.3 Consider the following uses noise-sensitive and discourage these uses in areas in excess of 65 CNEL:

- *Schools*
- *Hospitals*
- *Rest Homes*
- *Long Term Care Facilities*
- *Mental Care Facilities*
- *Residential Uses*
- *Libraries*
- *Passive Recreation Uses*
- *Places of Worship*

N 1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

N 4.1 Prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:

a. 45 dBA 9-minute L_{eq} between 10:00 p.m. and 7:00 a.m.;

b. 65 dBA 9-minute L_{eq} between 7:00 a.m. and 10:00 p.m.

N 13.1 Minimize the impacts of construction noise on adjacent uses within acceptable standards.

N 13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse impacts on surrounding areas.

N 13.3 Condition subdivision approval adjacent to developed/occupied noise-sensitive land uses (see policy N 1.3) by requiring the developer to submit a construction-related noise mitigation plan to the [County] for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

i. Temporary noise attenuation fences;

ii. Preferential location and equipment; and

iii. Use of current noise suppression technology and equipment.

N 16.3 Prohibit exposure of residential dwellings to perceptible ground vibration from passing trains as perceived at the ground or second floor. Perceptible motion shall be presumed to be a motion velocity of 0.01 inches/second over a range of 1 to 100 Hz.

To ensure noise-sensitive land uses are protected from high levels of noise (N 1.1), Table N-1 of the Noise Element identifies guidelines to evaluate proposed developments based on exterior and interior noise level limits for land uses and requires a noise analysis to determine needed mitigation measures if necessary. The Noise Element identifies residential use as a noise-

sensitive land use (N 1.3) and discourages new residential development in areas with transportation related levels of 65 dBA CNEL or greater existing ambient noise levels. To prevent and mitigate noise impacts for its residents (N 1.5), County of Riverside requires noise attenuation measures for sensitive land use exposed to transportation related noise levels higher than 65 dBA CNEL.

Policy N 4.1 of the Noise Element sets a stationary-source exterior noise limit to not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA L_{eq} for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L_{eq} during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. To prevent high levels of construction noise from impacting noise-sensitive land uses, policies N 13.1 through 13.3 identify construction noise mitigation requirements for new development located near existing noise-sensitive land uses. Policy 16.3 establishes the vibration perception threshold for rail-related vibration levels, used in this analysis as a threshold for determining potential vibration impacts due to Project construction. (11)

3.3.1 LAND USE COMPATIBILITY

The noise criteria identified in the County of Riverside Noise Element (Table N-1) are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Exhibit 3-A, provides the County with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

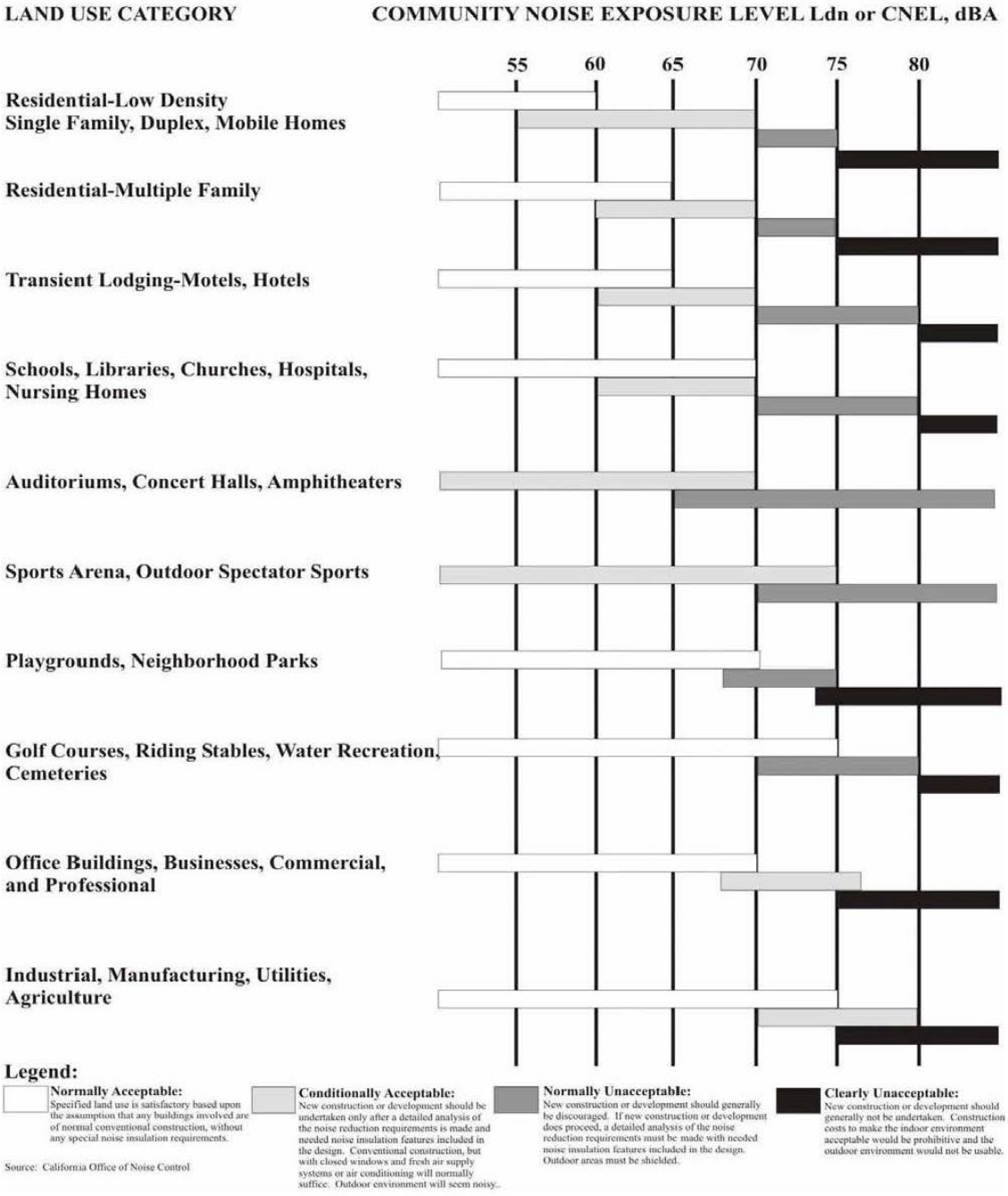
The *Land Use Compatibility for Community Noise Exposure* matrix describes categories of compatibility and not specific noise standards. The Project's land use is most closely to the *Office Buildings, Businesses, Commercial, and Professional* land use is considered *normally acceptable* with exterior noise levels below 70 dBA CNEL, and *conditionally acceptable* with exterior noise levels of up to 77 dBA CNEL. For *conditionally acceptable* exterior noise levels, exceeding 77 dBA CNEL for Project land uses, *new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice*. (11)

3.3.2 COUNTY OF RIVERSIDE STATIONARY NOISE STANDARDS

The County of Riverside has set stationary-source hourly average L_{eq} exterior noise limits to control Rancho California Road associated with the development of the proposed Lost Ranch Winery. The County considers noise generated using motor vehicles to be a stationary noise source when operated on private property such as at a loading dock. These facility-related noises, as projected to any portion of any surrounding property containing a *habitable dwelling, hospital, school, library or nursing home*, must not exceed the following worst-case noise levels.

Policy N 4.1 of the County of Riverside General Plan Noise Element sets a stationary-source average L_{eq} exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA L_{eq} for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L_{eq} during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (11)

EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE



Source: County of Riverside General Plan Noise Element, Table N-1.

The County of Riverside Municipal Code Section 9.52.040 *General sound level standards* identify lower, more restrictive exterior noise level standards, which for the purpose of this report, are used to evaluate potential Project-related operational noise level limits instead of the higher the General Plan exterior noise level standards previously identified. The County of Riverside Municipal Code identifies exterior noise level limits of 45 dBA L_{eq} during the daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L_{eq} during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. for agricultural uses. (12) The County of Riverside Municipal Code Noise Section is included in Appendix 3.1.

Based on several discussions with the County of Riverside Department of Environmental Health (DEH), Office of Industrial Hygiene (OIH), it is important to recognize that the County of Riverside Municipal Code noise level standards, incorrectly identify maximum noise level (L_{max}) standards that should instead reflect the average L_{eq} noise levels. Moreover, the County of Riverside DEH OIH's April 15th, 2015 *Requirements for determining and mitigating, non-transportation noise source impacts to residential properties* also identifies operational (stationary-source) noise level limits using the L_{eq} metric, consistent with the direction of the County of Riverside General Plan guidelines and standards provided in the Noise Element. Therefore, this report has been prepared consistent with direction of the County of Riverside DEH OIH guidelines and standards using the average L_{eq} noise level metric for stationary-source (operational) noise level evaluation.

3.4 CONSTRUCTION NOISE STANDARDS

To control noise impacts associated with the construction of the proposed Project, the County of Riverside has established limits to the hours of operation. Section 9.52.020 of the County's Noise Regulation ordinance indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. (12) Neither the County's General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (7 p. 179)

3.5 CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. (7) Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity.

The County of Riverside does not have vibration standards for temporary construction, but the County's General Plan Noise Element does contain the human reaction to typical vibration levels. Vibration levels with peak particle velocity of 0.0787 inches per second are considered readily perceptible and above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy N 16.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz, which is used in this noise study to assess potential impacts due to Project construction vibration levels. (11)

4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

B. Generation of excessive ground-borne vibration or ground-borne noise levels?

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach *recognizes that there is no single noise increase that renders the noise impact significant.* (13)

This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) (14) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}). The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (15 p. 2_48).

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, the vibration impacts originating from the construction of the Lost Ranch Winery, vibration-generating activities are appropriately evaluated the thresholds of significance outlined in the County of Riverside General Plan. (11) These guidelines identify a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz, which is used in this noise study to assess potential impacts due to Project construction vibration levels.

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest private airport is the Billy Joe Airport located 3.5 miles to the southwest, and the nearest public airport is the French Valley Airport located roughly 5.5 miles northwest of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant,* and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Condition(s)	Significance Criteria	
		Daytime	**Nighttime**
On-Site Traffic[1]	Exterior Noise Level Criteria	65 dBA CNEL	
	Interior Noise Level Standard	45 dBA CNEL	
Off-Site Traffic	If ambient is < 60 dBA Leq[2]	≥ 5 dBA L_{eq} Project increase	
	If ambient is 60 - 65 dBA Leq[2]	≥ 3 dBA L_{eq} Project increase	
	If ambient is > 65 dBA Leq[2]	≥ 1.5 dBA L_{eq} Project increase	
Operational	Exterior Noise Level Standards[3]	55 dBA L_{eq}	45 dBA L_{eq}
	If ambient is < 60 dBA Leq[2]	≥ 5 dBA L_{eq} Project increase	
	If ambient is 60 - 65 dBA Leq[2]	≥ 3 dBA L_{eq} Project increase	
	If ambient is > 65 dBA Leq[2]	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise Level Threshold[4]	80 dBA L_{eq}	
	Vibration Level Threshold[5]	0.01 in/sec RMS	

[1] County of Riverside General Plan Noise Element.
[2] FICON, 1992.
[3] County of Riverside General Plan Municipal Code, Section 9.52.040.
[4] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[5] County of Riverside General Plan Noise Element, Policy N 16.3.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Thursday, February 10, 2022. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (16)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (2) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (7)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (7) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the equivalent or the hourly energy average sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	Nighttime
L1	Located northwest of the Project site near single-family residence at 36580 Rancho California Road.	62.8	56.9
L2	Located east of the Project site near Don Fernando's Hideaway at 39112 Otis Street.	47.0	40.0
L3	Located southeast of the Project site near single-family residence at 35888 Glen Oaks Road.	67.3	63.2
L4	Located southwest of the Project site near single-family residence at 35601 Glen Oaks Road.	58.9	54.1

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the equivalent noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each of the daytime and nighttime hours.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

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6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the County of Riverside *Land Use Compatibility for Community Noise Exposure* (see Exhibit 3-A), all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (17) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (18) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

6.2 ON-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

The on-site roadway parameters are based on the County of Riverside General Plan Circulation Element roadway classifications and consistent with the County of Riverside office of Industrial Hygiene *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*. (19) The on-site roadway parameters including the average daily traffic (ADT) volumes used for this study are presented on Table 6-1.

TABLE 6-1: ON-SITE ROADWAY PARAMETERS

Roadway	Lanes	Classification[1]	Design Capacity (ADT)[2]	Speeds (MPH)[3]	Site Conditions[4]
Rancho California Rd.	2	Mtn. Arterial	12,900	55	Hard
Glen Oaks Rd.	2	Collector	12,300	55	Hard

[1] County of Riverside Circulation Element Table C-1, July 2020
[2] County of Riverside Circulation Element Figure C-3, 2013
[3] Posted speed limit.
[4] County of Riverside Office of Industrial Hygiene Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures.

Based on the County of Riverside General Plan Circulation Element Map, Rancho California Rd. is classified as a Mountain Arterial roadway and Glen Oaks Rd. is classified as a Collector roadway.

The maximum two-way traffic volumes at a level of service C, shown on Table 6-1, were obtained from Figure C-3 of the 2008 County of Riverside General Plan Circulation Element (20) and reflect future long-range traffic conditions needed to assess the on-site traffic noise environment and to identify the appropriate noise mitigation measures that address the worst-case future noise conditions. Consistent with the County of Riverside Office of Industrial Hygiene noise study requirements, hard site conditions were used to analyze the potential on-site traffic noise impacts for the Project study area. (19) Hard site conditions account for the sound propagation loss over a reflective surface between the source and the receiver.

Table 6-2 presents the time-of-day vehicle splits by vehicle type, and Table 6-3 presents the total traffic flow distributions (vehicle mixes) used for this analysis which were obtained from the County of Riverside Office of Industrial Hygiene noise study requirements, included in Appendix 6.1. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model based on roadway types. The vehicle splits outlined in Appendix 6.1 are reported as a portion of the overall percentage, where the inputs into the FHWA model shown on Table 6-2 are reported as a percentage of the overall percentage.

TABLE 6-2: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Riverside County (Expressway, Arterial, Major)				
Autos	75.55%	14.02%	10.43%	100.00%
Medium Trucks	48.00%	2.00%	50.00%	100.00%
Heavy Trucks	48.00%	2.00%	50.00%	100.00%

[1] Source: County of Riverside Office of Industrial Hygiene, 2017.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-3: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Roadway	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
Expressway, Arterial, Major[1]	92.00%	3.00%	5.00%	100.00%
Secondary, Collector[1]	97.42%	1.84%	0.74%	100.00%

[1] Source: County of Riverside Office of Industrial Hygiene, 2017.

To predict the future noise environment at the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The site plan is used to identify the relationship between the roadway, the pad and the centerline distance to the noise barrier, and the building façade. The first-floor exterior noise level receivers were placed five feet above the pad elevation per County of Riverside Office of Industrial Hygiene noise study guidelines. (19)

7 ON-SITE TRANSPORTATION NOISE IMPACTS

An on-site exterior noise impact analysis has been completed to determine the noise exposure levels that would result from adjacent transportation noise sources in the Project study area, and to identify potential noise mitigation measures that would achieve acceptable Project exterior and interior noise levels, as necessary. The primary source of transportation noise affecting the Project site is from Rancho California Road and Glen Oaks Road. The Project will also experience some background traffic noise from the Project's internal local streets, however, due to the distance, topography and low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment.

7.1 ON-SITE EXTERIOR NOISE ANALYSIS

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-1 to 6-3, the expected future exterior noise levels for individual rooms were calculated. Table 7-1 presents a summary of future exterior noise level impacts in the outdoor areas within the Project site. The on-site traffic noise level impacts indicate that the outdoor areas adjacent to air conditioning units, outdoor activity areas, a wine press and conveyor, forklift, and parking lot activities will experience unmitigated exterior noise levels ranging from 62.5 to 67.4 dBA CNEL. The on-site traffic noise analysis calculations are provided in Appendix 7.1.

According to the *Land Use Compatibility for Community Noise Exposure* level shown on Exhibit 3-A, this noise analysis shows that the unmitigated exterior noise levels for the Project's office buildings, businesses, commercial, and professional land uses is considered *normally acceptable* with exterior noise levels below 70 dBA CNEL. In addition, the unmitigated exterior noise levels in the outdoor patio areas will satisfy the County of Riverside 70 dBA CNEL exterior noise level standards for office buildings, businesses, commercial, and professional land uses. Therefore, no exterior noise abatement is needed to satisfy the County of Riverside 70 dBA CNEL exterior noise level standards for the proposed land use.

TABLE 7-1: EXTERIOR NOISE LEVELS (CNEL)

Receiver Location	Roadway	Unmitigated Exterior Noise Level (dBA CNEL)	Land Use Compatibility[1]
Patio	Rancho California Rd.	67.4	*Normally Acceptable*
Wine Press	Glen Oaks Rd.	62.5	*Normally Acceptable*

[1] Based on the General Plan land use compatibility standards for commercial office uses as shown on Exhibit 3-A.

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8 OFF-SITE TRANSPORTATION NOISE IMPACTS

The Project would result in an increase in regional or local traffic volumes. Because sources are calculated on a logarithmic scale, a doubling of the energy is required to generate a noise level increase of 3 dBA. In the case of traffic, a doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA.

The Project is anticipated to generate an average of 338 trips daily (21). In the Project area, Rancho California Road and Glen Oaks Road have average daily traffic (ADT) volumes of approximately 7,500 and 4,800, respectively (22). The Project increase in traffic volumes would result in a 0.2 to 0.3 dBA increase. Therefore, the Project is anticipated to result in a less than 1 dBA CNEL increase along Rancho California Road and Glen Oaks Road. Therefore, the Project would not increase traffic noise. Off-site traffic noise impacts would be less than significant under CEQA.

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9 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 9-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, four receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the Project boundary to each receiver location.

R1: Location R1 represents existing noise sensitive residence at 36580 Rancho California Road, approximately 339 feet northwest of the Project site. Receiver R1 is placed in the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive Don Fernando's Hideaway at 39112 Otis Street, approximately 498 feet east of the Project site. Receiver R2 is placed in the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing noise sensitive residence at 35888 Glen Oaks Road, approximately 749 feet southeast of the Project site. Receiver R3 is placed in the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents the existing noise sensitive residence at 35601 Glen Oaks Road, approximately 307 feet southwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R4 is placed at the building façade. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

EXHIBIT 9-A: RECEIVER LOCATIONS

10 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source (i.e., on-site) operational noise impacts at the nearest receiver locations, identified in Section 9, resulting from the operation of the proposed Project. Exhibit 10-A identifies the noise source locations used to assess the hourly average L_{eq} operational noise levels consistent with the County of Riverside General Plan Noise Element Policy N 4.1.

10.1 OPERATIONAL NOISE SOURCES

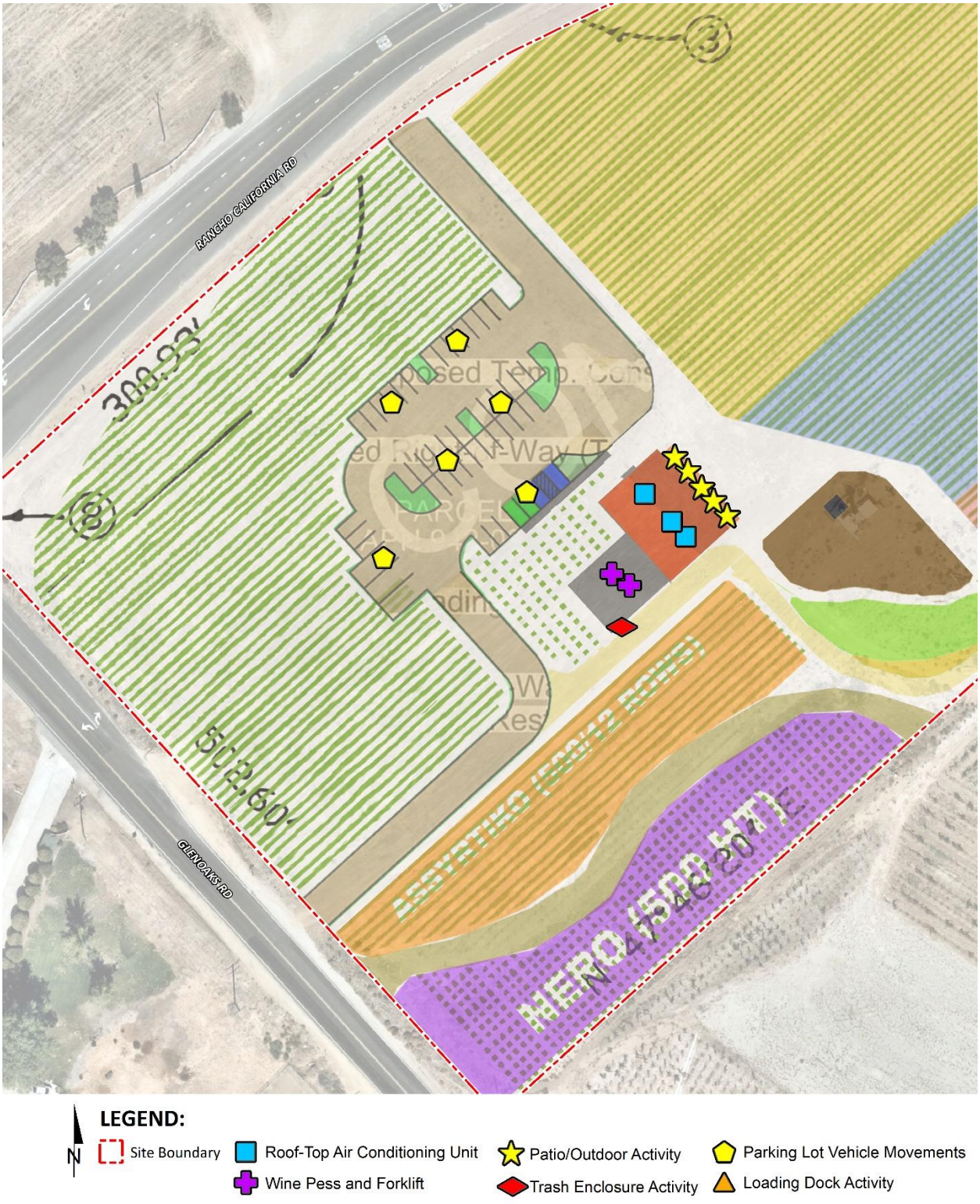
This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. The on-site Project-related noise sources are expected to include roof-top air conditioning units, outdoor activity areas, a wine press and conveyor, forklift, and parking lot activities.

10.2 REFERENCE NOISE LEVELS

To estimate the Project service commercial land use operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The reference Project operational noise levels are based on the Project related noise sources shown on Exhibit 10-A. The reference Project operational sound power levels are summarized below:

- Roof-Top A/C Condenser Units: Represents a Lennox SCA120 series 10-ton model packaged air conditioning unit with a reference sound power level of 89 dBA L_w operating during all hours of the day.
- Outdoor Activity Area: A 92 dBA L_w reference noise level measurements describing outdoor patio areas, dining, drinking, with background music etc. collected by Urban Crossroads, Inc. The outdoor activity is expected to be limited to the daytime hours of 7:00 a.m. to 10:00 p.m.
- Wine Pressing: Wine pressing involves a forklift lifting a bucket and loading grapes onto a conveyor system to separate fruit and stems as well as load the frit into a press. The wine press and conveyor generate relatively noise levels on the order of 63 dBA at 3 feet (71 dBA L_w). While the forklift would typically generate noise levels of approximately 72 dBA L_{eq} at 50 feet (103.6 dBA L_w).
- Parking Lot Activities: 87.8 dBA L_w based on reference noise level measurements describing parking lot vehicle activity collected by Urban Crossroads, Inc. The parking lot activity is expected to be limited to the daytime hours of 7:00 a.m. to 10:00 p.m.

EXHIBIT 10-A: OPERATIONAL NOISE SOURCE LOCATIONS



10.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a simi-hard surface. Appendix 10.1 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

10.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include air conditioning units, outdoor activity areas, a wine press and conveyor, forklift, and parking lot activities, Urban Crossroads, Inc. calculated the unmitigated operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 10-1 shows the unmitigated Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m., which is conservatively assumed to be the same as nighttime (10:00 p.m. to 7:00 a.m.) noise levels The hourly noise levels at the off-site receiver locations are expected to range from 11.2 to 33.8 dBA L_{eq}.

TABLE 10-1: PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{eq})			
	R1	R2	R3	R4
Roof-Top Air Conditioning Units	26.3	4.3	5.2	26.5
Outdoor Activity Area	26.6	4.3	5.2	26.8
Wine Pressing	30.3	7.6	8.8	31.0
Trash	14.6	0.0	0.0	15.5
Parking Lot Activities	23.2	0.0	0.0	23.0
Total (All Noise Sources)	**33.4**	**11.2**	**12.1**	**33.8**

[1] See Exhibit 10-A for the noise source locations. CadnaA noise model calculations are included in Appendix 10.1.

10.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the County of Riverside exterior noise level standards at the nearest noise-sensitive receiver locations. Based on the CadnaA noise prediction model results that account for the noise attenuation due to distance from the noise source activities, Table 10-3 shows the operational noise levels associated with the Lost Ranch Winery Project will satisfy the County of Riverside 45 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime exterior noise level standards at the nearest receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations.

TABLE 10-3: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	33.4	33.4	55.0	45.0	No	No
R2	11.2	11.2	55.0	45.0	No	No
R3	12.1	12.1	55.0	45.0	No	No
R4	33.8	33.8	55.0	45.0	No	No

[1] See Exhibit 9-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Tables 10-1 and 10-2.
[3] County of Riverside General Plan Municipal Code, Section 9.52.040. (Appendix 3.1).
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

10.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise,

decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 10-4 and 10-5, respectively.

As indicated on Tables 10-4 and 10-5, the Project will generate an unmitigated daytime and nighttime operational noise level increases ranging from 0.0 to 0.1 dBA L_{eq} at the nearest receiver locations. In effect, the amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Based on the significance criteria presented in Table 4-1, the Project-related operational noise level increases will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations and the impact will be *less than significant.*

TABLE 10-4: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	33.4	L1	65.5	65.5	0.0	1.5	No
R2	11.2	L2	60.0	60.0	0.0	1.5	No
R3	12.1	L3	50.5	50.5	0.0	5.0	No
R4	33.8	L4	55.9	55.9	0.0	5.0	No

[1] See Exhibit 9-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 10-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

TABLE 10-5: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	33.4	L1	60.8	60.8	0.0	3.0	No
R2	11.2	L2	55.4	55.4	0.0	5.0	No
R3	12.1	L3	40.1	40.1	0.0	5.0	No
R4	33.8	L4	48.8	48.9	0.1	5.0	No

[1] See Exhibit 9-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 10-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

11 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 11-A shows the construction noise source locations in relation to the nearby sensitive receiver locations previously described in Section 9.

11.1 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

11.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe peak construction noise activities, this construction noise analysis was prepared using reference noise level measurements published in the *FHWA Road Construction Nosie Model* (RCNM) (23). The RCNM database provides a conservative source of reference construction noise levels. Table 11-1 provides a summary of the FHWA construction reference noise level measurements expressed in hourly average dBA L_{eq} using the estimated FHWA RCNM usage factors to describe the typical construction activities for each stage of Project construction (23).

EXHIBIT 11-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS

TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})[1]	Combined Noise Level (dBA L_{eq})	Power Level (dBA L_w)
Site Preparation	Crawler Tractors	78	80.4	112.1
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83.3	115.0
	Compactors	76		
	Excavators	77		
Building Construction	Tractors	80	81.1	112.8
	Cranes	73		
	Welders	70		
Paving	Pavers	74	83.1	114.7
	Paving Equipment	82		
	Rollers	73		
Architectural Coating	Cranes	73	77.4	109.1
	Air Compressors	74		
	Generator Sets	70		

[1] FHWA Roadway Construction Noise Model (RCNM), 2006.
[2] Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance for general construction noise assessment.

11.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. Consistent with FTA guidance for general construction noise assessment, Table 11-1 presents the combined noise level for all equipment, assuming they operate at the same time. As shown on Table 11-2, the construction noise levels are expected to range from 12.5 to 40.5 dBA L_{eq}, and the highest construction levels are expected to range from 18.4 to 40.5 dBA L_{eq} at the nearby receiver locations. Appendix 11.1 includes the detailed CadnaA construction noise model inputs.

The construction noise analysis presents a conservative approach with the combined noise-level-producing equipment for each stage of Project construction operating at the closest point from primary construction activity to the nearby sensitive receiver locations. This scenario is unlikely to occur during typical construction activities and likely overstates the construction noise levels which will be experienced at each receiver location.

TABLE 11-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	37.3	40.2	38.0	39.9	34.3	40.2
R2	15.5	18.4	16.2	18.1	12.5	18.4
R3	15.7	18.6	16.4	18.3	12.7	18.6
R4	37.6	40.5	38.3	40.2	34.6	40.5

[1] Noise receiver locations are shown on Exhibit 11-A.
[2] Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1.

11.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 11-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 11-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	40.2	80	No
R2	18.4	80	No
R3	18.6	80	No
R4	40.5	80	No

[1] Noise receiver locations are shown on Exhibit 11-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 11-2.
[3] Construction noise level thresholds as shown on Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

11.5 CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). (7) However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 11-4. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 11-4: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Loaded Trucks	0.076
Large bulldozer	0.089

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Using the vibration source level of construction equipment provided on Table 11-4 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 11-5 presents the expected Project related vibration levels at the nearby receiver locations.

At distances ranging from 307 to 749 feet from the Project construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.001 in/sec RMS and will remain below the threshold of 0.01 in/sec RMS at all receiver locations, as shown on Table 11-5. Therefore, the Project-related vibration impacts are considered *less than significant*.

TABLE 11-5: PROJECT CONSTRUCTION VIBRATION LEVELS

Receiver[1]	Distance to Const. Activity (Feet)	Receiver Levels (in/sec) RMS[2]				Threshold (in/sec) RMS[4]	Threshold Exceeded?[5]
		Small Bulldozer	Loaded Trucks	Large Bulldozer	Peak Vibration		
R1	339'	0.000	0.001	0.001	0.001	0.010	No
R2	498'	0.000	0.001	0.001	0.001	0.010	No
R3	749'	0.000	0.000	0.000	0.000	0.010	No
R4	307'	0.000	0.001	0.001	0.001	0.010	No

[1] Receiver locations are shown on Exhibit 10-A.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 10-4. Vibration levels in PPV are converted to RMS velocity using a 0.71 conversion factor identified in the Caltrans Transportation and Construction Vibration Guidance Manual, September 2013.
[3] Source: County of Riverside General Plan Noise Element, Policy N 16.3.
[4] Does the vibration level exceed the maximum acceptable vibration threshold?

Moreover, the impacts at the site of the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

12 REFERENCES

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3. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
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18. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
19. **County of Riverside, Office of Industrial Hygiene.** *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures.* April 2015.
20. **County of Riverside.** *General Plan Circulation Element.* 2008.

21. **Urban Crossroads, Inc. .** *Lost Ranch Winery Trip Generation Evaluation.* 2021.

22. **County of Riverside Department of Transportation.** *Traffic Counts 2020.*

23. **U.S. Department of Transportation, Federal Highway Administration.** *Road Construction Noise Model, version 1.0.* 2006.

13 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Lost Ranch Winery Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (619) 778-1971.

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EDUCATION

Bachelor of Science in Urban and Regional Planning
California Polytechnic State University, Pomona • June 2000

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
INCE – Institute of Noise Control Engineers

PROFESSIONAL CERTIFICATIONS

Approved Acoustical Consultant • County of San Diego
FHWA Traffic Noise Model of Training • November 2004
CadnaA Basic and Advanced Training Certificate • October 2008.

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APPENDIX 3.1:

COUNTY OF RIVERSIDE MUNICIPAL CODE

Chapter 9.52 - NOISE REGULATION

Sections:

9.52.010 - Intent.

At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of Riverside County residents and degrade their quality of life. Pursuant to its police power, the board of supervisors declares that noise shall be regulated in the manner described in this chapter. This chapter is intended to establish county-wide standards regulating noise. This chapter is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act and no such thresholds are established.

(Ord. 847 § 1, 2006)

9.52.020 - Exemptions.

Sound emanating from the following sources is exempt from the provisions of this chapter:

A. Facilities owned or operated by or for a governmental agency;

B. Capital improvement projects of a governmental agency;

C. The maintenance or repair of public properties;

D. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile;

E. Public or private schools and school-sponsored activities;

F. Agricultural operations on land designated "Agriculture" in the Riverside County general plan, or land zoned A-l (light agriculture), A-P (light agriculture with poultry), A-2 (heavy agriculture), A-D (agriculture-dairy) or C/V (citrus/vineyard), provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used during such operations, whether stationary or mobile;

G. Wind energy conversion systems (WECS), provided such systems comply with the WECS noise provisions of Riverside County Ordinance No. 348;

H. Private construction projects located one-quarter of a mile or more from an inhabited dwelling;

I. Private construction projects located within one-quarter of a mile from an inhabited dwelling,

provided that:

1. Construction does not occur between the hours of six p.m. and six a.m. during the months of June through September, and
2. Construction does not occur between the hours of six p.m. and seven a.m. during the months of October through May;

J. Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of seven a.m. and eight p.m.;

K. Motor vehicles, other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems;

L. Heating and air conditioning equipment;

M. Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety, and welfare;

N. The discharge of firearms consistent with all state laws.

(Ord. 847 § 2, 2006)

9.52.030 - Definitions.

As used in this chapter, the following terms shall have the following meanings:

"Audio equipment" means a television, stereo, radio, tape player, compact disc player, mp3 player, I-POD or other similar device.

"Decibel (dB)" means a unit for measuring the relative amplitude of a sound equal approximately to the smallest difference normally detectable by the human ear, the range of which includes approximately one hundred thirty (130) decibels on a scale beginning with zero decibels for the faintest detectable sound. Decibels are measured with a sound level meter using different methodologies as defined below:

1. "A-weighting (dBA)" means the standard A-weighted frequency response of a sound level meter, which de-emphasizes low and high frequencies of sound in a manner similar to the human ear for moderate sounds.
2. "Maximum sound level (L_{max})" means the maximum sound level measured on a sound level meter.

"Governmental agency" means the United States, the state of California, Riverside County, any city within Riverside County, any special district within Riverside County or any combination of these agencies.

"Land use permit" means a discretionary permit issued by Riverside County pursuant to Riverside County Ordinance No. 348.

"Motor vehicle" means a vehicle that is self-propelled.

"Motor vehicle sound system" means a stereo, radio, tape player, compact disc player, mp3 player, I-POD or other similar device.

"Noise" means any loud, discordant or disagreeable sound.

"Occupied property" means property upon which is located a residence, business or industrial or manufacturing use.

"Off-highway vehicle" means a motor vehicle designed to travel over any terrain.

"Public or private school" means an institution conducting academic instruction at the preschool, elementary school, junior high school, high school, or college level.

"Public property" means property owned by a governmental agency or held open to the public, including, but not limited to, parks, streets, sidewalks, and alleys.

"Sensitive receptor" means a land use that is identified as sensitive to noise in the noise element of the Riverside County general plan, including, but not limited to, residences, schools, hospitals, churches, rest homes, cemeteries or public libraries.

"Sound-amplifying equipment" means a loudspeaker, microphone, megaphone or other similar device.

"Sound level meter" means an instrument meeting the standards of the American National Standards Institute for Type 1 or Type 2 sound level meters or an instrument that provides equivalent data.

(Ord. 847 § 3, 2006)

9.52.040 - General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Table 1.

TABLE 1

Sound Level Standards (Db L_{max})

GENERAL PLAN FOUNDATION COMPONENT	GENERAL PLAN LAND USE DESIGNATION	GENERAL PLAN LAND USE DESIGNATION NAME	DENSITY	MAXIMUM DECIBEL LEVEL	
				7 am—10 pm	10 pm—7 am

Community Development	EDR	Estate Density Residential	2 AC	55	45
	VLDR	Very Low Density Residential	1 AC	55	45
	LDR	Low Density Residential	1/2 AC	55	45
	MDR	Medium Density Residential	2—5	55	45
	MHDR	Medium High Density Residential	5—8	55	45
	HDR	High Density Residential	8—14	55	45
	VHDR	Very High Density Residential	14—20	55	45
	H'TDR	Highest Density Residential	20+	55	45
	CR	Retail Commercial		65	55
	CO	Office Commercial		65	55
	CT	Tourist Commercial		65	55
	CC	Community Center		65	55
	LI	Light Industrial		75	55
	HI	Heavy Industrial		75	75

	BP	Business Park		65	45
	PF	Public Facility		65	45
	SP	Specific Plan-Residential		55	45
		Specific Plan-Commercial		65	55
		Specific Plan-Light Industrial		75	55
		Specific Plan-Heavy Industrial		75	75
Rural Community	EDR	Estate Density Residential	2 AC	55	45
	VLDR	Very Low Density Residential	1 AC	55	45
	LDR	Low Density Residential	1/2 AC	55	45
Rural	RR	Rural Residential	5 AC	45	45
	RM	Rural Mountainous	10 AC	45	45
	RD	Rural Desert	10 AC	45	45
Agriculture	AG	Agriculture	10 AC	45	45
Open Space	C	Conservation		45	45
	CH	Conservation Habitat		45	45

	REC	Recreation		45	45
	RUR	Rural	20 AC	45	45
	W	Watershed		45	45
	MR	Mineral Resources		75	45

(Ord. 847 § 4, 2006)

9.52.050 - Sound level measurement methodology.

Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in Section 9.52.080 of this chapter. Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a sound level measurement, the calibration of the sound level meter shall be re-verified. Sound level meters and calibration equipment shall be certified annually.

(Ord. 847 § 5, 2006)

9.52.060 - Special sound sources standards.

The general sound level standards set forth in Section 9.52.040 of this chapter apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitutes separate violations of this chapter:

A. Motor Vehicles.

1. Off-Highway Vehicles.

a. No person shall operate an off-highway vehicle unless it is equipped with a USDA-qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.

b. No person shall operate an off-highway vehicle unless the noise emitted by the vehicle

is not more than ninety-six (96) dBA if the vehicle was manufactured on or after January 1, 1986 or is not more than one hundred one (101) dBA if the vehicle was manufactured before January 1, 1986. For purposes of this subsection, emitted noise shall be measured a distance of twenty (20) inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

2. Sound Systems. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of ten p.m. and eight a.m., such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than one hundred (100) feet from the vehicle.

B. Power Tools and Equipment. No person shall operate any power tools or equipment between the hours of ten p.m. and eight a.m. such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than one hundred (100) feet from the power tools or equipment.

C. Audio Equipment. No person shall operate any audio equipment, whether portable or not, between the hours of ten p.m. and eight a.m. such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than one hundred (100) feet from the equipment.

D. Sound-Amplifying Equipment and Live Music. No person shall install, use or operate sound-amplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control:

1. Sound-amplifying equipment or live music is prohibited between the hours of ten p.m. and eight a.m.

2. Sound emanating from sound-amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than two hundred (200) feet from the equipment or music.

(Ord. 847 § 6, 2006)

9.52.070 - Exceptions.

Exceptions may be requested from the standards set forth in Section 9.52.040 or 9.52.060 of this chapter and may be characterized as construction-related, single-event or continuous-events exceptions.

A. Application and Processing.

1. Construction-Related Exceptions. An application for a construction-related exception shall be made to and considered by the director of building and safety on forms provided by the building and safety department and shall be accompanied by the appropriate filing fee. No public hearing is required.
2. Single-Event Exceptions. An application for a single-event exception shall be made to and considered by the planning director on forms provided by the planning department and shall be accompanied by the appropriate filing fee. No public hearing is required.
3. Continuous-Events Exceptions. An application for a continuous-events exception shall be made to the planning director on forms provided by the planning department and shall be accompanied by the appropriate filing fee. Upon receipt of an application for a continuous-events exception, the planning director shall set the matter for public hearing before the planning commission, notice of which shall be given as provided in Section 18.26c of Riverside County Ordinance No. 348. Notwithstanding the above, an application for a continuous-events exception that is associated with an application for a land use permit shall be processed concurrently with the land use permit in the same manner that the land use permit is required to be processed.

B. Requirements for Approval. The appropriate decisionmaking body or officer shall not approve an exception application unless the applicant demonstrates that the activities described in the application would not be detrimental to the health, safety or general welfare of the community. In determining whether activities are detrimental to the health, safety or general welfare of the community, the appropriate decisionmaking body or officer shall consider such factors as the proposed duration of the activities and their location in relation to sensitive receptors. If an exception application is approved, reasonable conditions may be imposed to minimize the public detriment, including, but not limited to, restrictions on sound level, sound duration and operating hours.

C. Appeals. The director of building and safety's decision on an application for a construction-related exception is considered final. The planning director's decision on an application for a single-event exception is considered final. After making a decision on an application for a continuous-events exception, the appropriate decisionmaking body or officer shall mail notice of the decision to the applicant. Within ten (10) calendar days after the mailing of such notice, the applicant or an interested person may appeal the decision to the board of supervisors. Upon receipt of an appeal and payment of the appropriate appeal fee, the clerk of the board

shall set the matter for hearing not less than five days nor more than thirty (30) days thereafter and shall give written notice of the hearing in the same manner as notice of the hearing was given by the appropriate hearing officer or body. The board of supervisors shall render its decision within thirty (30) days after the appeal hearing is closed.

D. Effect of a Pending Continuous-Events Exception Application. For a period of one hundred eighty (180) days from the effective date of this chapter, no person creating any sound prohibited by this chapter shall be considered in violation of this chapter if the sound is related to a use that is operating pursuant to an approved land use permit, if an application for a continuous-events exception has been filed to sanction the sound and if a decision on the application is pending.

(Ord. 847 § 7, 2006)

9.52.080 - Enforcement.

The Riverside County sheriff and code enforcement shall have the primary responsibility for enforcing this chapter; provided, however, the sheriff and code enforcement may be assisted by the public health department. Violations shall be prosecuted as described in Section 9.52.100 of this chapter, but nothing in this chapter shall prevent the sheriff, code enforcement or the department of public health from engaging in efforts to obtain voluntary compliance by means of warnings, notices, or educational programs.

(Ord. 847.1 § 1, 2007: Ord. 847 § 8, 2006)

9.52.090 - Duty to cooperate.

No person shall refuse to cooperate with, or obstruct, the enforcement officials identified in Section 9.52.080 of this chapter when they are engaged in the process of enforcing the provisions of this chapter. This duty to cooperate may require a person to extinguish a sound source so that it can be determined whether sound emanating from the source violates the provisions of this chapter.

(Ord. 847 § 9, 2006)

9.52.100 - Violations and penalties.

Any person who violates any provision of this chapter once or twice within a one hundred eighty (180) day period shall be guilty of an infraction. Any person who violates any provision of this chapter more than twice within a one hundred eighty (180) day period shall be guilty of a misdemeanor. Each day a violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such. Penalties shall not exceed the following amounts:

A. For the first violation within a one hundred eighty (180) day period, the minimum mandatory

fine shall be five hundred dollars ($500.00).

B. For the second violation within a one hundred eighty (180) day period, the minimum mandatory fine shall be seven hundred fifty dollars ($750.00).

C. For any further violations within a one hundred eighty (180) day period, the minimum mandatory fine shall be one thousand dollars ($1,000.00) or imprisonment in the county jail for a period not exceeding six months, or both.

(Ord. 847 § 10, 2006)

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APPENDIX 5.1:

STUDY AREA PHOTOS

JN: 13811 Study Area Photos

L1_E
33, 33' 14.510000"117, 2' 12.080000"

L1_N
33, 33' 14.510000"117, 2' 12.140000"

L1_S
33, 33' 14.510000"117, 2' 12.110000"

L1_W
33, 33' 14.530000"117, 2' 12.110000"

L2_E
33, 33' 11.960000"117, 1' 51.430000"

L2_N
33, 33' 11.960000"117, 1' 51.430000"

JN: 13811 Study Area Photos

L2_S
33, 33' 11.960000"117, 1' 51.430000"

L2_W
33, 33' 11.960000"117, 1' 51.430000"

L3_E
33, 33' 4.950000"117, 2' 5.570000"

L3_N
33, 33' 4.950000"117, 2' 5.600000"

L3_S
33, 33' 4.970000"117, 2' 5.600000"

L3_W
33, 33' 4.940000"117, 2' 5.570000"

JN: 13811 Study Area Photos

L4_E
33, 33' 11.820000"117, 2' 12.440000"

L4_N
33, 33' 11.850000"117, 2' 12.520000"

L4_S
33, 33' 11.840000"117, 2' 12.500000"

L4_W
33, 33' 11.820000"117, 2' 12.440000"

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APPENDIX 5.2:

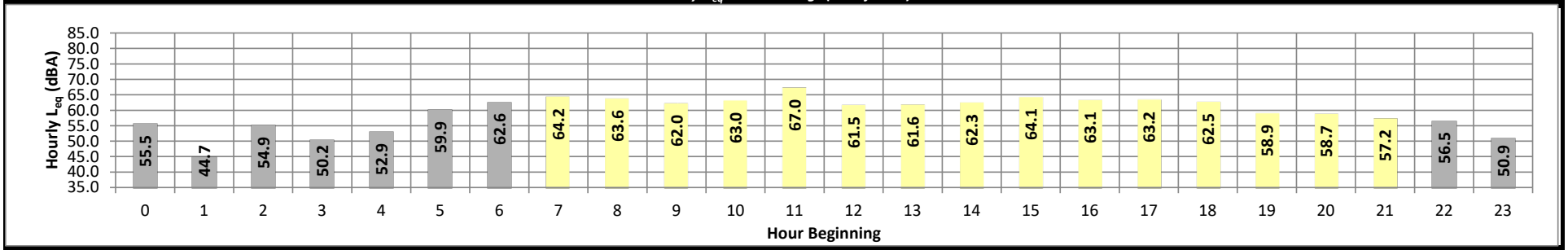
NOISE LEVEL MEASUREMENT WORKSHEETS

24-Hour Noise Level Measurement Summary

Date: Thursday, February 10, 2022 *Location:* L1 - Located northwest of the Project site near single-family *Meter:* Piccolo II *JN:* 13811

Project: Glen Oaks Road Winery *Source:* residence at 36580 Rancho California Road. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	55.5	66.0	36.7	65.5	64.8	62.4	60.8	55.1	49.4	39.2	38.2	36.9	55.5	10.0	65.5
	1	44.7	55.6	32.6	55.1	54.5	52.0	50.2	42.0	37.1	33.0	32.8	32.7	44.7	10.0	54.7
	2	54.9	65.9	33.7	65.6	64.9	63.0	62.4	50.4	41.7	36.2	34.5	33.8	54.9	10.0	64.9
	3	50.2	61.5	33.1	61.0	60.1	58.0	56.4	48.7	41.6	34.5	33.8	33.2	50.2	10.0	60.2
	4	52.9	64.3	37.1	63.9	63.0	60.4	58.1	51.1	45.4	39.5	38.6	37.4	52.9	10.0	62.9
	5	59.9	69.9	46.1	69.4	68.4	66.4	65.0	60.2	55.6	48.4	47.1	46.3	59.9	10.0	69.9
	6	62.6	71.8	52.2	71.4	70.7	68.6	67.1	63.2	59.2	54.2	53.2	52.3	62.6	10.0	72.6
Day	7	64.2	73.0	51.9	72.6	72.1	70.4	69.1	64.6	60.7	54.1	52.9	52.0	64.2	0.0	64.2
	8	63.6	72.5	50.7	72.0	71.5	69.6	68.4	64.5	60.0	53.2	52.0	50.9	63.6	0.0	63.6
	9	62.0	72.1	48.0	71.5	70.8	68.9	67.3	62.0	57.0	50.1	49.2	48.2	62.0	0.0	62.0
	10	63.0	75.1	44.6	73.7	72.7	70.4	68.1	61.6	56.7	47.5	46.1	44.9	63.0	0.0	63.0
	11	67.0	73.4	59.9	72.5	71.8	70.6	70.0	67.9	66.4	62.5	61.7	60.3	67.0	0.0	67.0
	12	61.5	71.1	47.9	70.7	70.1	67.9	66.2	61.9	57.7	50.2	49.0	48.1	61.5	0.0	61.5
	13	61.6	71.4	47.4	70.9	70.2	68.3	66.6	61.9	57.7	50.1	48.7	47.6	61.6	0.0	61.6
	14	62.3	72.4	48.0	71.8	71.0	68.8	67.3	62.6	58.0	50.7	49.4	48.2	62.3	0.0	62.3
	15	64.1	73.8	50.8	73.5	72.9	70.9	69.2	63.5	60.0	53.5	52.2	51.0	64.1	0.0	64.1
	16	63.1	72.4	50.1	72.1	71.7	69.7	68.1	62.9	59.4	52.6	51.3	50.4	63.1	0.0	63.1
	17	63.2	72.6	51.6	72.1	71.3	69.0	67.6	63.8	60.4	54.1	53.1	51.8	63.2	0.0	63.2
	18	62.5	73.0	48.9	72.4	71.3	68.9	67.2	62.8	58.8	51.7	50.4	49.1	62.5	0.0	62.5
	19	58.9	67.6	46.4	67.2	66.7	65.3	64.2	59.3	54.6	48.4	47.3	46.6	58.9	5.0	63.9
	20	58.7	68.7	44.7	68.3	67.7	65.6	64.0	58.5	53.2	46.6	45.7	44.9	58.7	5.0	63.7
	21	57.2	66.9	42.5	66.5	65.8	64.0	62.6	57.7	51.3	44.4	43.6	42.8	57.2	5.0	62.2
Night	22	56.5	69.0	38.6	67.9	67.0	64.3	62.5	53.3	46.9	40.7	39.8	38.8	56.5	10.0	66.5
	23	50.9	61.8	36.0	61.4	60.6	58.3	56.1	49.6	44.3	37.7	36.9	36.1	50.9	10.0	60.9

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	57.2	66.9	42.5	66.5	65.8	64.0	62.6	57.7	51.3	44.4	43.6	42.8
	Max	67.0	75.1	59.9	73.7	72.9	70.9	70.0	67.9	66.4	62.5	61.7	60.3
Energy Average		62.8	Average:		71.2	70.5	68.5	67.0	62.3	58.1	51.3	50.2	49.1
Night	Min	44.7	55.6	32.6	55.1	54.5	52.0	50.2	42.0	37.1	33.0	32.8	32.7
	Max	62.6	71.8	52.2	71.4	70.7	68.6	67.1	63.2	59.2	54.2	53.2	52.3
Energy Average		56.9	Average:		64.6	63.8	61.5	59.8	52.6	46.8	40.4	39.4	38.6

L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
61.4	**62.8**	**56.9**

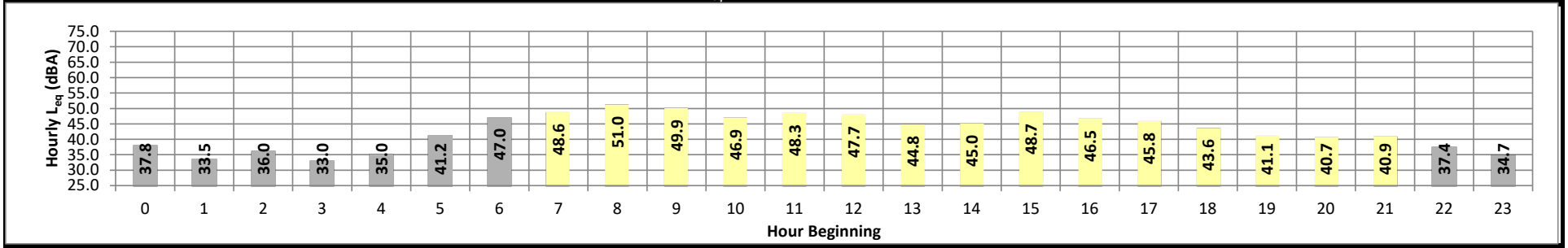
URBAN CROSSROADS

24-Hour Noise Level Measurement Summary

Date: Thursday, February 10, 2022 *Location:* L2 - Located east of the Project site near Don Fernando's *Meter:* Piccolo II *JN:* 13811

Project: Glen Oaks Road Winery *Source:* Hideaway at 39112 Otis Street. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	37.8	45.4	31.8	45.0	44.3	43.1	42.0	38.5	35.3	32.6	32.2	31.9	37.8	10.0	47.8
	1	33.5	40.9	30.7	40.2	39.3	37.5	36.9	33.3	32.0	31.0	30.9	30.7	33.5	10.0	43.5
	2	36.0	42.1	31.5	41.7	41.2	40.2	39.5	37.1	34.3	32.0	31.8	31.6	36.0	10.0	46.0
	3	33.0	38.4	30.3	38.0	37.7	36.6	35.7	33.7	31.7	30.5	30.4	30.3	33.0	10.0	43.0
	4	35.0	40.3	31.7	40.0	39.6	38.6	37.9	35.7	34.0	32.1	31.9	31.8	35.0	10.0	45.0
	5	41.2	46.3	36.8	46.0	45.7	44.9	44.3	41.9	40.2	37.8	37.4	36.9	41.2	10.0	51.2
	6	47.0	52.6	42.4	52.3	52.0	51.1	50.5	47.8	45.7	43.4	43.0	42.5	47.0	10.0	57.0
Day	7	48.6	56.5	42.5	55.3	54.2	52.5	51.8	50.0	46.8	43.8	43.3	42.7	48.6	0.0	48.6
	8	51.0	58.1	43.6	57.5	56.9	55.5	54.8	52.4	49.0	45.3	44.7	44.0	51.0	0.0	51.0
	9	49.9	56.9	44.3	56.2	55.3	54.1	53.4	50.7	48.5	45.6	45.1	44.6	49.9	0.0	49.9
	10	46.9	74.3	42.2	72.5	70.9	68.0	65.7	58.6	53.7	43.9	43.2	42.5	46.9	0.0	46.9
	11	48.3	76.3	59.7	74.9	73.7	72.0	70.7	67.7	66.1	62.0	60.7	59.9	48.3	0.0	48.3
	12	47.7	56.3	40.3	55.6	54.8	53.7	53.1	50.1	46.1	41.7	41.1	40.5	47.7	0.0	47.7
	13	44.8	52.5	37.1	52.1	51.6	50.5	49.0	45.7	43.3	38.3	37.8	37.2	44.8	0.0	44.8
	14	45.0	45.8	36.6	45.5	45.0	43.9	43.2	41.3	39.9	37.6	37.2	36.8	45.0	0.0	45.0
	15	48.7	58.7	41.2	58.4	57.9	56.3	54.3	48.3	45.2	42.3	41.8	41.3	48.7	0.0	48.7
	16	46.5	54.6	40.7	54.1	53.7	52.3	50.7	46.4	44.4	41.8	41.4	40.9	46.5	0.0	46.5
	17	45.8	50.5	41.3	50.2	49.8	48.9	48.4	46.7	45.1	42.7	42.0	41.5	45.8	0.0	45.8
	18	43.6	48.9	38.8	48.6	48.3	47.4	46.7	44.6	42.6	39.9	39.5	38.9	43.6	0.0	43.6
	19	41.1	46.4	36.0	46.2	45.9	45.1	44.4	42.1	40.0	37.1	36.6	36.1	41.1	5.0	46.1
	20	40.7	46.6	34.9	46.3	46.0	45.1	44.2	41.6	39.5	36.0	35.5	35.1	40.7	5.0	45.7
	21	40.9	46.3	35.1	45.9	45.5	44.6	44.0	42.1	40.5	36.0	35.6	35.2	40.9	5.0	45.9
Night	22	37.4	43.0	32.8	42.7	42.4	41.6	41.1	38.4	35.7	33.4	33.1	32.9	37.4	10.0	47.4
	23	34.7	39.1	32.0	38.9	38.6	37.9	37.3	35.2	33.9	32.5	32.3	32.1	34.7	10.0	44.7

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	40.7	45.8	34.9	45.5	45.0	43.9	43.2	41.3	39.5	36.0	35.5	35.1
	Max	51.0	76.3	59.7	74.9	73.7	72.0	70.7	67.7	66.1	62.0	60.7	59.9
Energy Average		47.0	Average:		54.6	54.0	52.6	51.6	48.6	46.0	42.3	41.7	41.1
Night	Min	33.0	38.4	30.3	38.0	37.7	36.6	35.7	33.3	31.7	30.5	30.4	30.3
	Max	47.0	52.6	42.4	52.3	52.0	51.1	50.5	47.8	45.7	43.4	43.0	42.5
Energy Average		40.0	Average:		42.8	42.3	41.3	40.6	38.0	35.9	33.9	33.7	33.4

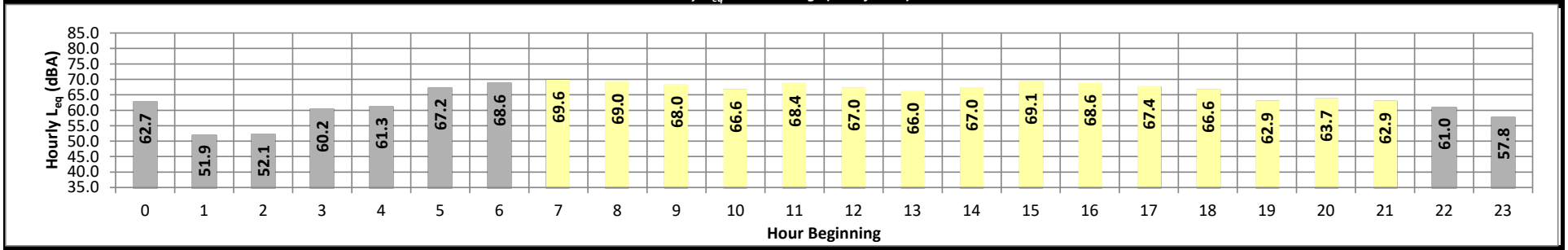
L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
45.4	**47.0**	**40.0**

24-Hour Noise Level Measurement Summary

Date: Thursday, February 10, 2022 *Location:* L3 - Located southeast of the Project site near single-family *Meter:* Piccolo II *JN:* 13811

Project: Glen Oaks Road Winery *Source:* residence at 35888 Glen Oaks Road. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	62.7	78.9	34.8	77.9	75.6	68.2	63.6	50.8	43.1	36.2	35.6	34.9	62.7	10.0	72.7
	1	51.9	66.9	33.0	66.0	64.4	59.0	54.8	40.8	35.8	33.7	33.4	33.1	51.9	10.0	61.9
	2	52.1	65.7	33.1	65.0	63.8	59.8	56.4	46.0	37.2	33.7	33.4	33.1	52.1	10.0	62.1
	3	60.2	76.0	33.1	74.9	72.9	67.0	61.8	45.4	37.6	33.8	33.4	33.2	60.2	10.0	70.2
	4	61.3	76.4	35.0	75.2	73.2	68.8	65.3	51.3	41.3	36.1	35.5	35.1	61.3	10.0	71.3
	5	67.2	81.2	42.0	80.3	78.8	74.9	71.9	60.9	52.2	43.5	42.9	42.2	67.2	10.0	77.2
	6	68.6	82.0	46.8	81.0	79.6	76.1	73.7	65.1	56.9	48.3	47.6	47.0	68.6	10.0	78.6
Day	7	69.6	82.2	47.9	81.2	79.8	76.9	75.0	68.2	60.5	49.9	48.8	48.0	69.6	0.0	69.6
	8	69.0	81.5	46.6	80.5	79.1	76.1	74.2	67.8	59.8	48.9	47.9	46.8	69.0	0.0	69.0
	9	68.0	80.2	47.1	79.3	78.0	75.2	73.4	66.7	59.3	49.8	48.6	47.3	68.0	0.0	68.0
	10	66.6	79.5	41.9	78.4	77.0	73.8	71.7	64.6	57.5	45.3	43.6	42.3	66.6	0.0	66.6
	11	68.4	78.1	60.3	76.9	75.7	73.4	72.1	68.5	66.8	62.5	61.4	60.6	68.4	0.0	68.4
	12	67.0	80.0	43.7	79.2	77.8	74.2	71.9	64.6	57.0	45.8	44.7	43.9	67.0	0.0	67.0
	13	66.0	78.4	43.0	77.5	76.2	73.1	71.4	64.8	57.4	45.8	44.2	43.3	66.0	0.0	66.0
	14	67.0	79.9	42.6	78.9	77.4	74.2	72.1	65.3	58.2	45.4	44.0	42.9	67.0	0.0	67.0
	15	69.1	81.9	47.7	81.1	79.6	76.0	73.8	67.5	60.8	50.8	49.4	48.0	69.1	0.0	69.1
	16	68.6	81.9	45.9	81.2	79.7	75.5	72.8	66.6	59.7	49.3	47.7	46.2	68.6	0.0	68.6
	17	67.4	79.8	44.9	78.9	77.5	74.3	72.5	66.4	59.5	47.5	46.1	45.1	67.4	0.0	67.4
	18	66.6	79.3	45.7	78.4	77.0	73.8	71.7	64.7	57.6	48.2	47.0	45.8	66.6	0.0	66.6
	19	62.9	75.6	42.8	74.8	73.6	70.4	68.1	60.2	52.4	45.1	44.4	43.0	62.9	5.0	67.9
	20	63.7	76.9	40.5	76.1	74.9	71.0	68.6	60.5	52.0	42.9	41.8	40.7	63.7	5.0	68.7
	21	62.9	76.8	40.0	75.9	74.3	70.3	67.5	58.2	50.8	42.0	41.1	40.3	62.9	5.0	67.9
Night	22	61.0	74.9	36.2	74.2	72.9	68.8	65.4	54.1	44.9	38.1	37.1	36.4	61.0	10.0	71.0
	23	57.8	72.4	34.1	71.6	70.2	65.4	61.4	48.9	40.7	35.1	34.6	34.2	57.8	10.0	67.8

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	62.9	75.6	40.0	74.8	73.6	70.3	67.5	58.2	50.8	42.0	41.1	40.3
	Max	69.6	82.2	60.3	81.2	79.8	76.9	75.0	68.5	66.8	62.5	61.4	60.6
Energy Average		67.3	Average:		78.6	77.2	73.9	71.8	65.0	58.0	47.9	46.7	45.6
Night	Min	51.9	65.7	33.0	65.0	63.8	59.0	54.8	40.8	35.8	33.7	33.4	33.1
	Max	68.6	82.0	46.8	81.0	79.6	76.1	73.7	65.1	56.9	48.3	47.6	47.0
Energy Average		63.2	Average:		74.0	72.4	67.6	63.8	51.5	43.3	37.6	37.0	36.6

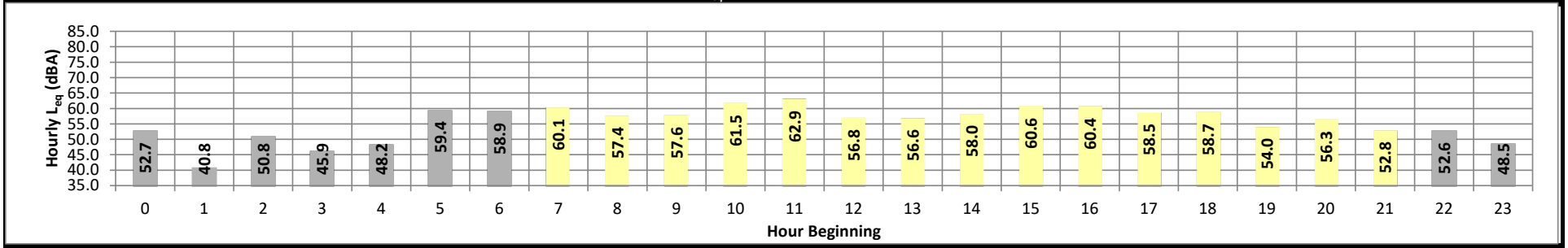
L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
66.2	**67.3**	**63.2**

24-Hour Noise Level Measurement Summary

Date: Thursday, February 10, 2022 *Location:* L4 - Located southwest of the Project site near single-family *Meter:* Piccolo II *JN:* 13811

Project: Glen Oaks Road Winery *Source:* residence at 35601 Glen Oaks Road. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	52.7	69.8	37.1	69.3	68.1	66.2	64.5	51.8	43.5	38.2	37.8	37.3	52.7	10.0	62.7
	1	40.8	49.4	35.2	49.0	48.6	46.4	45.2	40.7	37.8	35.7	35.5	35.3	40.8	10.0	50.8
	2	50.8	61.9	35.2	61.3	60.7	58.7	57.5	45.9	39.2	36.5	36.1	35.4	50.8	10.0	60.8
	3	45.9	55.1	34.6	54.9	54.6	53.3	51.7	45.6	40.4	36.2	35.2	34.7	45.9	10.0	55.9
	4	48.2	57.5	36.3	57.2	56.5	54.7	53.5	48.7	43.5	37.7	37.2	36.5	48.2	10.0	58.2
	5	59.4	70.1	43.9	69.7	69.2	67.0	65.6	57.1	51.5	46.2	45.2	44.0	59.4	10.0	69.4
	6	58.9	68.8	49.6	68.4	67.8	65.1	63.6	58.6	54.8	51.2	50.5	49.8	58.9	10.0	68.9
Day	7	60.1	69.9	48.9	69.6	69.1	67.4	65.7	59.6	54.5	50.5	49.8	49.1	60.1	0.0	60.1
	8	57.4	67.3	47.0	66.8	66.0	63.9	62.5	57.2	53.7	49.0	48.2	47.2	57.4	0.0	57.4
	9	57.6	67.0	45.7	66.7	66.2	64.7	63.3	57.3	52.1	47.5	46.6	45.9	57.6	0.0	57.6
	10	61.5	74.2	43.3	72.6	71.4	68.7	66.7	60.1	54.5	45.4	44.5	43.6	61.5	0.0	61.5
	11	62.9	74.6	60.4	73.5	72.7	71.0	69.9	68.1	66.7	62.8	61.6	60.7	62.9	0.0	62.9
	12	56.8	66.0	45.9	65.6	64.9	63.0	62.1	56.9	52.8	47.8	47.1	46.2	56.8	0.0	56.8
	13	56.6	66.8	45.6	66.3	65.6	63.7	62.0	55.7	51.9	47.8	47.0	45.9	56.6	0.0	56.6
	14	58.0	67.5	46.1	67.2	66.7	65.0	63.5	57.5	53.2	47.9	47.1	46.2	58.0	0.0	58.0
	15	60.6	70.5	48.0	70.3	69.8	67.7	65.9	59.8	55.1	50.1	49.1	48.2	60.6	0.0	60.6
	16	60.4	70.4	47.2	70.1	69.5	67.4	65.9	59.8	54.2	49.1	48.2	47.4	60.4	0.0	60.4
	17	58.5	68.0	46.6	67.6	67.1	65.4	64.0	58.0	53.9	48.6	47.7	46.9	58.5	0.0	58.5
	18	58.7	68.5	46.3	68.2	67.6	65.9	64.3	57.6	54.0	48.3	47.4	46.6	58.7	0.0	58.7
	19	54.0	62.5	44.0	62.1	61.7	60.4	59.1	54.3	50.5	45.7	45.0	44.2	54.0	5.0	59.0
	20	56.3	65.6	43.6	65.3	65.0	63.6	62.5	55.2	50.4	45.4	44.6	43.9	56.3	5.0	61.3
	21	52.8	61.9	41.1	61.7	61.4	59.7	58.1	52.7	48.7	42.8	42.1	41.3	52.8	5.0	57.8
Night	22	52.6	62.7	38.9	62.4	62.0	60.5	58.5	51.3	45.4	40.4	39.6	39.0	52.6	10.0	62.6
	23	48.5	58.8	37.2	58.5	58.0	56.3	54.3	46.9	41.8	38.4	38.0	37.3	48.5	10.0	58.5

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	52.8	61.9	41.1	61.7	61.4	59.7	58.1	52.7	48.7	42.8	42.1	41.3
	Max	62.9	74.6	60.4	73.5	72.7	71.0	69.9	68.1	66.7	62.8	61.6	60.7
Energy Average		58.9	Average:		67.6	67.0	65.2	63.7	58.0	53.8	48.6	47.7	46.9
Night	Min	40.8	49.4	34.6	49.0	48.6	46.4	45.2	40.7	37.8	35.7	35.2	34.7
	Max	59.4	70.1	49.6	69.7	69.2	67.0	65.6	58.6	54.8	51.2	50.5	49.8
Energy Average		54.1	Average:		61.2	60.6	58.7	57.2	49.6	44.2	40.0	39.4	38.8

L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
57.6	**58.9**	**54.1**

URBAN CROSSROADS

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APPENDIX 7.1:

ON-SITE TRAFFIC NOISE LEVEL CALCULATIONS

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 10/1/2012

Scenario: Backyard No Wall
Road Name: Rancho California Rd.
Lot No: Patio

Project Name: Lost Ranch Winery
Job Number: 13811
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,900 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,290 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	26 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	310.0 feet
Centerline Dist. to Observer:	315.0 feet
Barrier Distance to Observer:	5.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Barrier Elevation:	0.0 feet
Road Grade:	1.0%

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	10
Medium Trucks (2 Axles):	10
Heavy Trucks (3+ Axles):	10

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	75.5%	14.0%	10.5%	92.00%
Medium Trucks:	48.0%	2.0%	50.0%	3.00%
Heavy Trucks:	48.0%	2.0%	50.0%	5.00%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	314.771
Medium Trucks:	314.743
Heavy Trucks:	314.746

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	72.73	-1.97	-8.06	0.00	*-1.99*	0.000	0.000
Medium Trucks:	79.85	-16.83	-8.06	0.00	*-2.02*	0.000	0.000
Heavy Trucks:	83.81	-14.61	-8.06	0.00	*-2.11*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.7	60.7	59.4	53.4	61.8	62.4
Medium Trucks:	55.0	51.0	43.2	52.4	58.6	58.6
Heavy Trucks:	61.1	57.2	49.4	58.6	64.7	64.8
Vehicle Noise:	65.4	62.6	59.9	60.5	67.2	67.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.7	60.7	59.4	53.4	61.8	62.4
Medium Trucks:	55.0	51.0	43.2	52.4	58.6	58.6
Heavy Trucks:	61.1	57.2	49.4	58.6	64.7	64.8
Vehicle Noise:	65.4	62.6	59.9	60.5	67.2	67.4

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 10/1/2012

Scenario: Backyard No Wall
Road Name: Glenn Oaks Rd.
Lot No: Wine Press

Project Name: Lost Ranch Winery
Job Number: 13811
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,230 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	26 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	300.0 feet
Centerline Dist. to Observer:	305.0 feet
Barrier Distance to Observer:	5.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Barrier Elevation:	0.0 feet
Road Grade:	1.0%

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	10
Medium Trucks (2 Axles):	10
Heavy Trucks (3+ Axles):	10

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	73.6%	13.6%	10.2%	97.40%
Medium Trucks:	0.9%	0.0%	0.9%	1.84%
Heavy Trucks:	0.4%	0.0%	0.4%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	304.764
Medium Trucks:	304.735
Heavy Trucks:	304.738

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	72.73	-1.92	-7.92	0.00	*-1.99*	0.000	0.000
Medium Trucks:	79.85	-19.16	-7.92	0.00	*-2.02*	0.000	0.000
Heavy Trucks:	83.81	-23.12	-7.92	0.00	*-2.12*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.9	60.8	59.4	53.4	61.9	62.5
Medium Trucks:	52.8	31.5	24.0	32.8	38.9	39.0
Heavy Trucks:	52.8	27.4	24.0	28.7	34.9	35.0
Vehicle Noise:	63.7	60.8	59.4	53.5	61.9	62.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.9	60.8	59.4	53.4	61.9	62.5
Medium Trucks:	52.8	31.5	24.0	32.8	38.9	39.0
Heavy Trucks:	52.8	27.4	24.0	28.7	34.9	35.0
Vehicle Noise:	63.7	60.8	59.4	53.5	61.9	62.5

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APPENDIX 10.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS

14120 - Teme Winery

CadnaA Noise Prediction Model: 13811-02_Operation.cna
Date: 07.03.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	274.32
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	33.4	33.4	40.1	45.0	45.0	0.0				5.00	a	6321712.37	2146178.25	5.00
RECEIVERS		R2	10.9	10.9	17.5	45.0	45.0	0.0				5.00	a	6323483.68	2146134.23	5.00
RECEIVERS		R3	11.9	11.9	18.6	45.0	45.0	0.0				5.00	a	6323082.43	2145243.87	5.00
RECEIVERS		R4	33.8	33.8	40.5	45.0	45.0	0.0				5.00	a	6321865.23	2145465.33	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		OAA1	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322401.86	2145888.90	5.00
POINTSOURCE		OAA2	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322385.20	2145907.26	5.00
POINTSOURCE		OAA3	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322376.21	2145918.07	5.00
POINTSOURCE		OAA4	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322367.62	2145927.32	5.00
POINTSOURCE		OAA5	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322393.01	2145898.67	5.00
POINTSOURCE		WP	71.0	71.0	71.0	Lw	71					0.0	3.00	a	6322323.35	2145854.62	3.00
POINTSOURCE		FL	103.6	103.6	103.6	Lw	103.6					0.0	12.00	a	6322334.63	2145847.02	12.00
POINTSOURCE		Trash1	88.0	88.0	88.0	Lw	88					0.0	5.00	a	6322336.39	2145819.73	5.00
POINTSOURCE		AC1	89.0	89.0	89.0	Lw	89					0.0	15.00	r	6322376.49	2145871.33	915.00
POINTSOURCE		AC2	89.0	89.0	89.0	Lw	89					0.0	15.00	r	6322367.38	2145881.10	915.00
POINTSOURCE		AC3	89.0	89.0	89.0	Lw	89					0.0	15.00	r	6322349.58	2145899.33	915.00
POINTSOURCE		Park1	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322273.74	2145907.46	1.00
POINTSOURCE		Park2	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322256.82	2145966.05	1.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		Park3	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322221.66	2145928.29	1.00
POINTSOURCE		Park4	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322228.17	2146006.42	1.00
POINTSOURCE		Park5	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322185.20	2145966.05	1.00
POINTSOURCE		Park6	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322179.99	2145864.49	1.00

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APPENDIX 11.1

CADNAA CONSTRUCTION NOISE MODEL INPUTS

14120 - Teme Winery

CadnaA Noise Prediction Model: 13811-02_Operation.cna
Date: 07.03.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	274.32
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	33.4	33.4	40.1	45.0	45.0	0.0				5.00	a	6321712.37	2146178.25	5.00
RECEIVERS		R2	10.9	10.9	17.5	45.0	45.0	0.0				5.00	a	6323483.68	2146134.23	5.00
RECEIVERS		R3	11.9	11.9	18.6	45.0	45.0	0.0				5.00	a	6323082.43	2145243.87	5.00
RECEIVERS		R4	33.8	33.8	40.5	45.0	45.0	0.0				5.00	a	6321865.23	2145465.33	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		OAA1	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322401.86	2145888.90	5.00
POINTSOURCE		OAA2	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322385.20	2145907.26	5.00
POINTSOURCE		OAA3	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322376.21	2145918.07	5.00
POINTSOURCE		OAA4	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322367.62	2145927.32	5.00
POINTSOURCE		OAA5	93.0	93.0	93.0	Lw	93					0.0	5.00	a	6322393.01	2145898.67	5.00
POINTSOURCE		WP	71.0	71.0	71.0	Lw	71					0.0	3.00	a	6322323.35	2145854.62	3.00
POINTSOURCE		FL	103.6	103.6	103.6	Lw	103.6					0.0	12.00	a	6322334.63	2145847.02	12.00
POINTSOURCE		Trash1	88.0	88.0	88.0	Lw	88					0.0	5.00	a	6322336.39	2145819.73	5.00
POINTSOURCE		AC1	89.0	89.0	89.0	Lw	89					0.0	15.00	r	6322376.49	2145871.33	915.00
POINTSOURCE		AC2	89.0	89.0	89.0	Lw	89					0.0	15.00	r	6322367.38	2145881.10	915.00
POINTSOURCE		AC3	89.0	89.0	89.0	Lw	89					0.0	15.00	r	6322349.58	2145899.33	915.00
POINTSOURCE		Park1	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322273.74	2145907.46	1.00
POINTSOURCE		Park2	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322256.82	2145966.05	1.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		Park3	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322221.66	2145928.29	1.00
POINTSOURCE		Park4	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322228.17	2146006.42	1.00
POINTSOURCE		Park5	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322185.20	2145966.05	1.00
POINTSOURCE		Park6	87.8	87.8	87.8	Lw	87.8					0.0	1.00	a	6322179.99	2145864.49	1.00

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