Appendix F: Noise Impact Study

City of San Jacinto General Plan

Noise Impact Study

City of San Jacinto, CA

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MD ACOUSTICS
Sound Solutions for Planning and Design

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1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the project study area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set forth by the Federal, State, and Local agencies. Consistent with the City's Noise Guidelines, the project must demonstrate compliance to the applicable noise criterion as outlined within the City's Noise Element and Municipal Code.

The following is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise and vibration
- A description of the local noise and vibration guidelines and standards
- An analysis of traffic noise impacts to and from the project site
- An analysis of stationary noise impacts to and from the project site
- An analysis of construction noise impacts
- An analysis of ground-borne vibration impacts to and from the project site
- Suggested mitigation measures to reduce impacts

1.2 Site Location and Study Area

The City of San Jacinto is located at the base of the San Jacinto Mountains and adjacent to the San Jacinto River; refer to Exhibit A, Location Map. The City is approximately 26 square miles (16,700 acres) and is located north of the City of Hemet in Western Riverside County. The City sits approximately 27 miles west of the San Bernardino National Forest and approximately 21 miles east of the City of Perris. State Route 79 runs through the City and is the primary corridor for regional access to San Jacinto.

The Study Area is the geographic area for which the General Plan Update provides a framework for long-term growth and resource conservation. State law requires the Study Area for the General Plan Update to include all territory within San Jacinto's incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The General Plan Update Study Area, as shown in Exhibit B includes the entire city limits (approximately 16,700 acres) as well as the City of San Jacinto's Sphere of Influence (approximately 6,100 acres); the entire Study Area is approximately 22,800 acres.

1.3 Existing Land Uses

San Jacinto is dominated by single-family housing. Other residential uses, including mobile home communities and multi-family housing developments, exist in San Jacinto but are less prevalent than single-family developments within the City. Additionally, there are several pockets of retail and light

industrial land uses and parks spread throughout the city. There is also a significant amount of vacant land within the City boundaries and across its sphere of influence.

1.4 Proposed Project Description

The City of San Jacinto is preparing a comprehensive update to its existing General Plan. The updated San Jacinto General Plan is expected to be adopted in 2022 and will guide the City's development and conservation through land use objectives and policy guidance. The General Plan Update is intended to be an expression of the community's vision for the City and Study Area and constitutes the policy and regulatory framework by which future development projects will be reviewed, and public improvements will be implemented. The City will implement the General Plan Update by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the General Plan Update.

The City's General Plan was last comprehensively updated in 2006, and the Housing Element was adopted in 2013. The City's Existing General Plan Land Use Plan (Exhibit C) represents the current plan for land use development within the Study Area which includes the City and its Sphere of Influence. The proposed General Plan Land Use Plan is shown in Exhibit D, and the Proposed Roadway Classifications Map is shown in Exhibit E. The purpose of this noise and vibration impact analysis is to evaluate the potential for the updated Land Use Plan and any changes to the Roadway Circulation Plan to result in impacts to the community and to recommend mitigation measures when applicable.

Exhibit A
Location Map

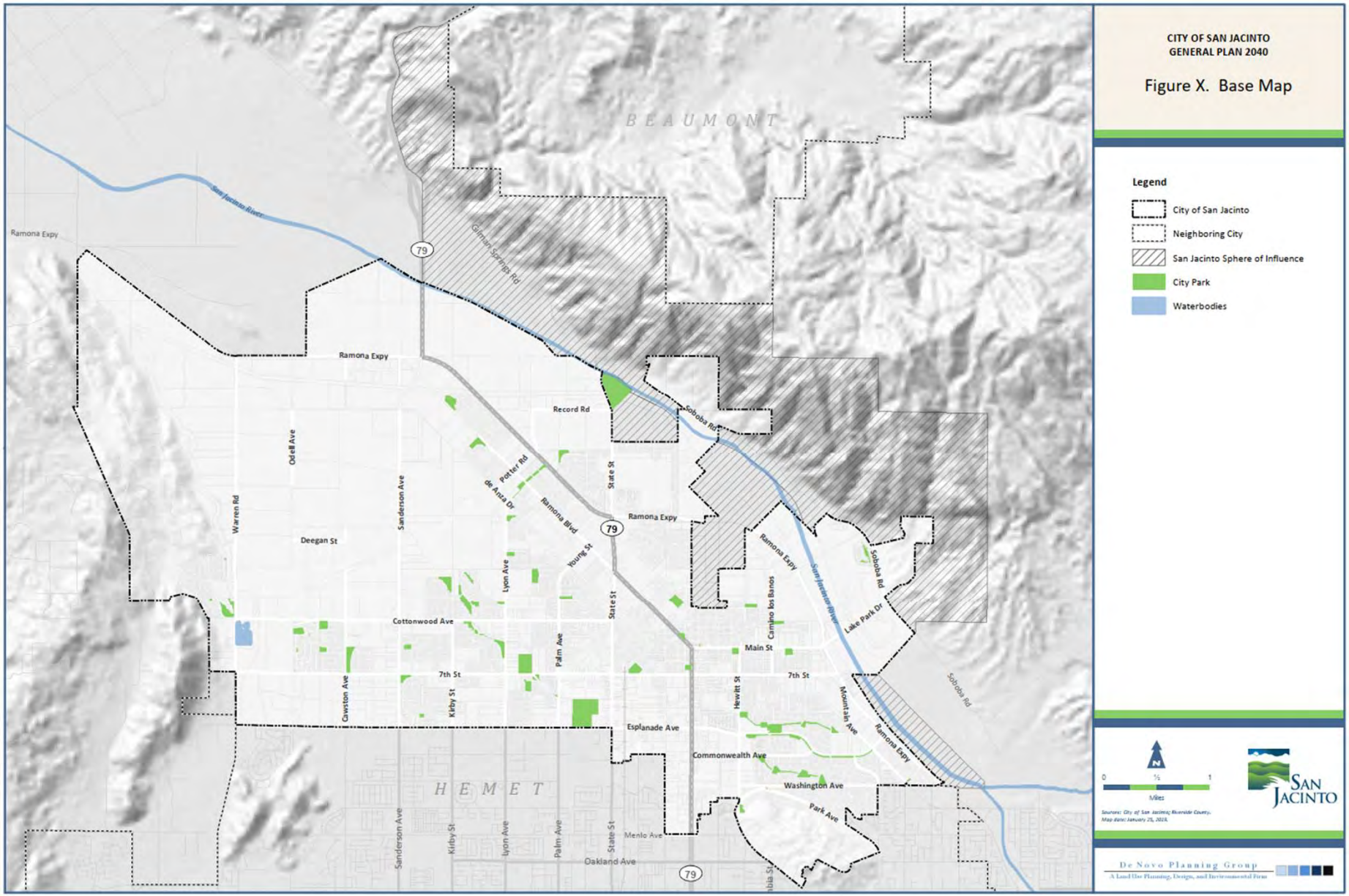


Exhibit B
Plan Area

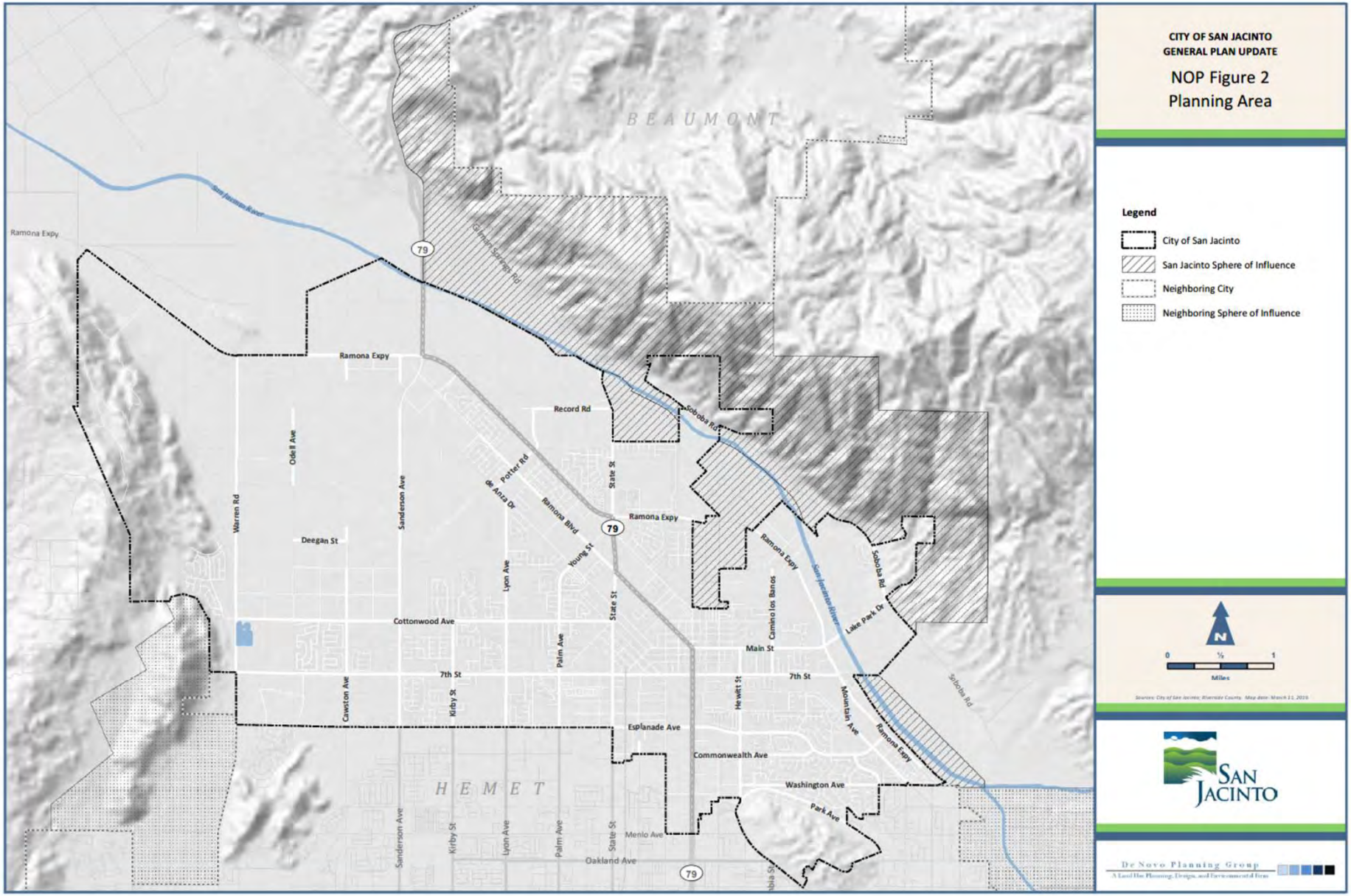


Exhibit C

Existing General Plan Land Use Map

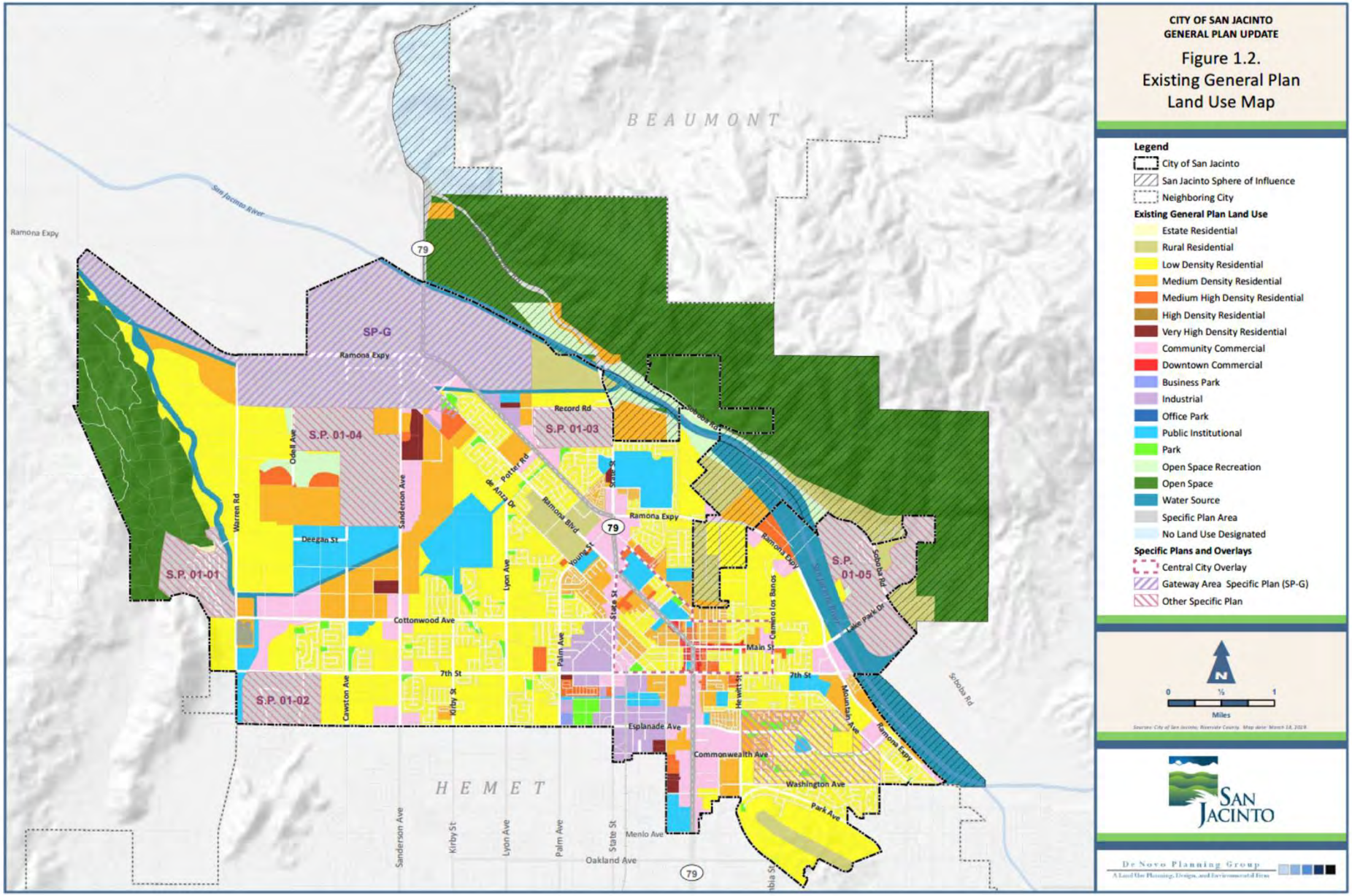


Exhibit D

Proposed General Plan Land Use Map

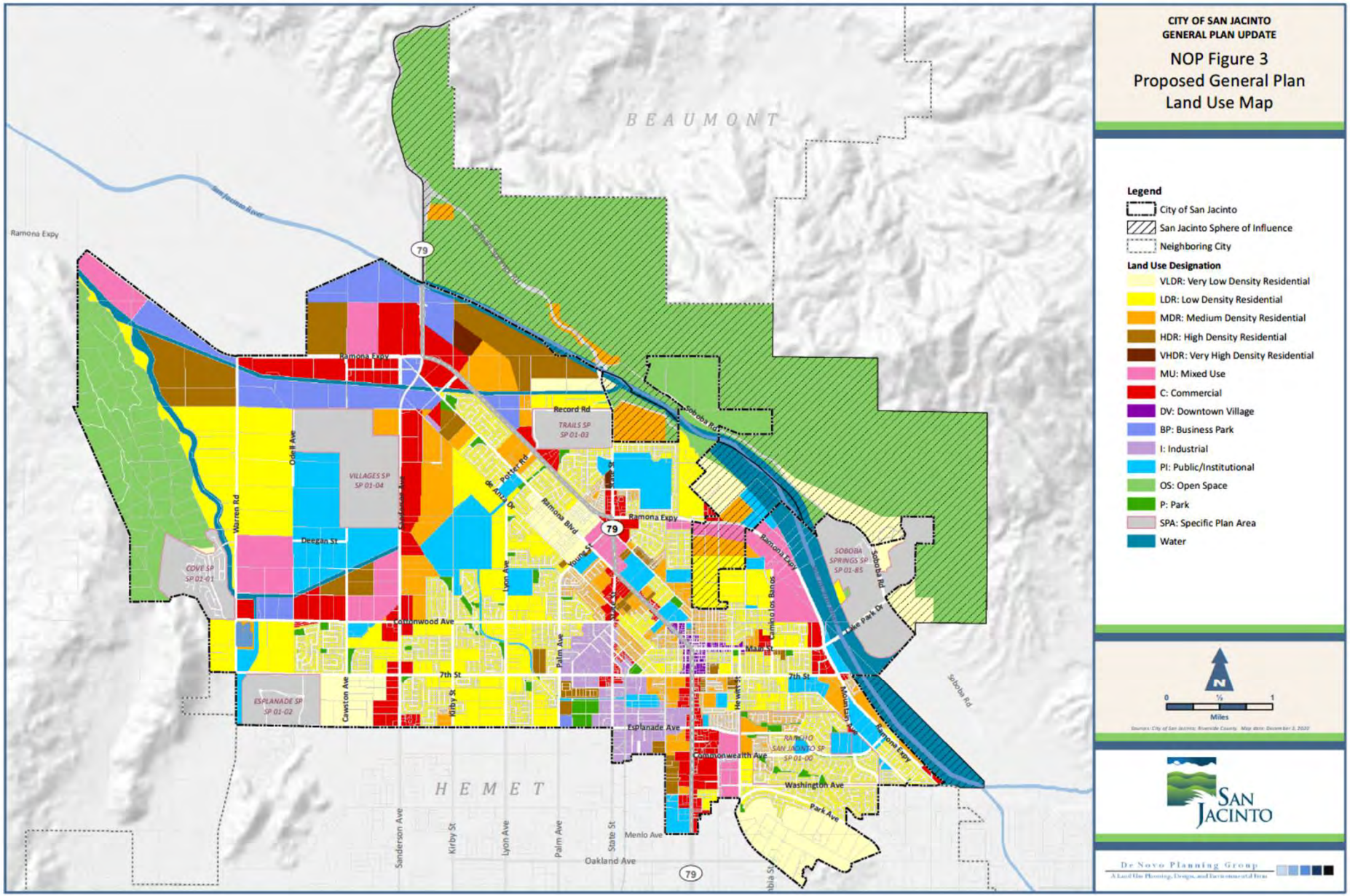
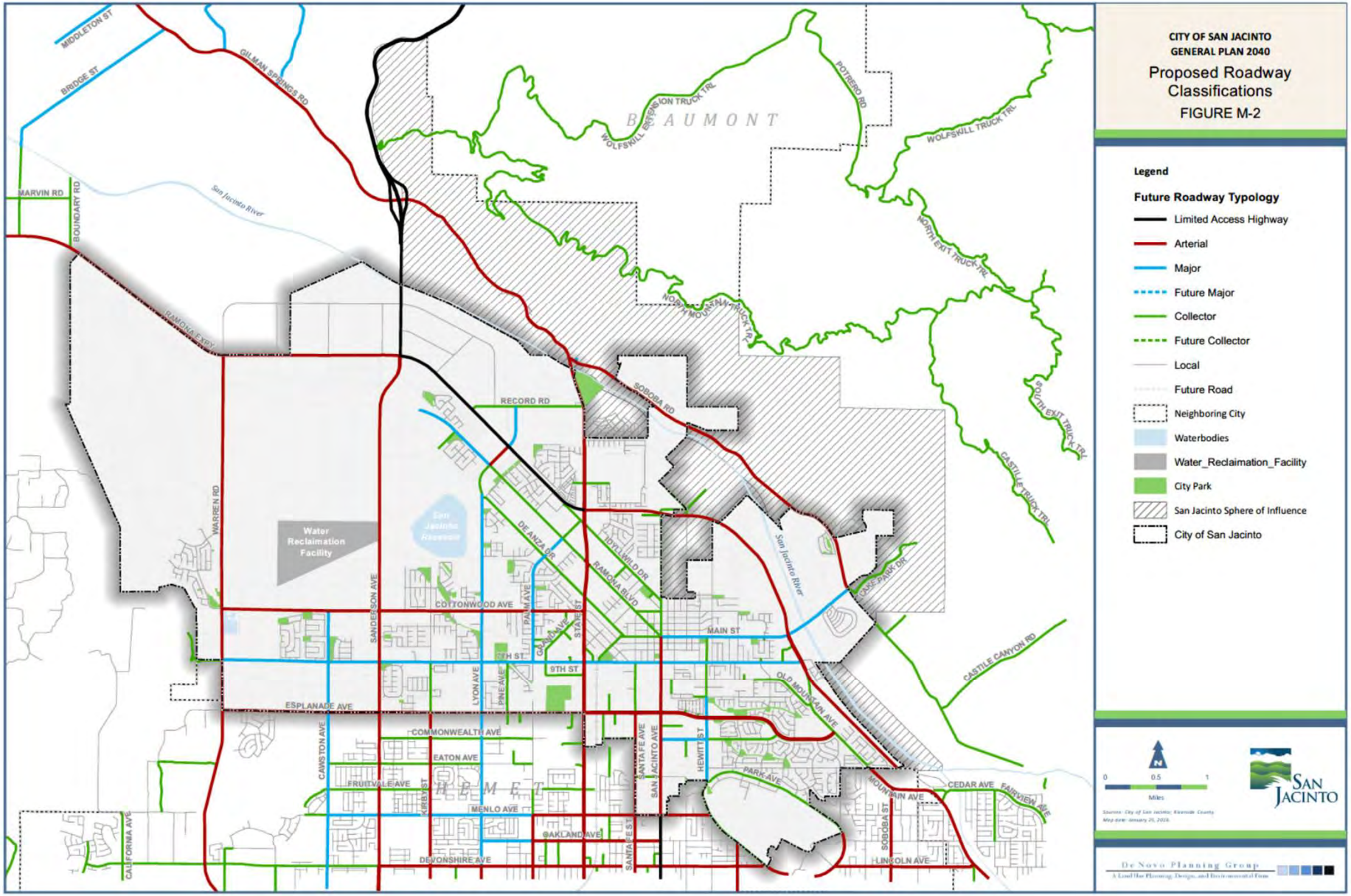


Exhibit E

Proposed Roadway Classifications



2.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

2.1 Sound, Noise, and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting at 20 Hz to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square meter ($\mu N/m^2$), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the single SPL. In other words, sound energy that is doubled produces a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound. When combining sound levels, estimates shown in Table 1 may be utilized.

Table 1: Decibel Addition

When Two Decibel Values Differ by:	Add This Amount to Higher Value	Example
0 or 1 dB	3 dB	70+69=73 dB
2 or 3 dB	2 dB	74+71=76 dB
4 to 9 dB	1 dB	66+60=67 dB
10 dB or more	0 dB	65+55=65 dB
Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013		

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, A-scale weighting is typically used and is reported in terms of the A-weighted decibel (dBA). The A-scale was designed to account for the frequency-dependent sensitivity of the human ear. Typical A-weighted noise levels are shown in Table 2.

Table 2: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor
	110	Rock Band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large Business Office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcasting/recording studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013.

In general, the human ear can barely perceive a change in the noise level of 3 dB. As shown in Table 3, a change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Table 3: Perceived Changes in Noise Levels

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud
Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013.	

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, and others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after the addition of ten (10) decibels to sound levels in the night between 10:00 PM and 7:00 AM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dBA: A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the California Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking, or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90, L99, etc.

Noise: *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dBA level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

2.7 Tonal Sounds

A pure tone sound is a sound produced at or near a single frequency. Laboratory tests have shown that humans are more perceptible to changes in sound levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contagious one-third octave bands by 5 dB for center frequencies of 500 Hertz (Hz) and above; by 8 dB for center frequencies between 160 and 400 Hz; and by 15 dB for center frequencies of 125 Hz or less.

2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet or more from a noise source. Wind, temperature, air humidity, and turbulence can further impact have far sound can travel.

2.9 Ground Absorption

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt, or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

2.10 Sound Attenuation

Noise-related land use issues are typically composed of three basic elements: (1) the noise source, (2) a transmission path, and (3) a receiver.

The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. When the potential for a noise-related problem is present, either avoidance of the noise-related problem or noise control techniques should be selected to provide an acceptable noise environment for the receiver while remaining consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control options are described below.

2.10.1 Noise Barriers

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. To achieve that reduction, the barrier be high enough and long enough to block the line-of-sight of the vehicles on the road. A noise barrier can still achieve a 5 dBA noise level reduction when it is tall enough to barely allow a line-of-sight of the vehicles. A noise barrier is most effective when placed close to the noise source or receiver. When the noise barrier is an earthen berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

2.10.2 Setbacks

Noise exposure may be reduced by increasing the setback distance between the noise source and the receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, and storage yards. The available noise attenuation from this technique is limited by the characteristics of the noise source but generally ranges between 4 and 6 dBA.

2.10.3 Site Design

Buildings can be placed on a property to shield other structures or areas affected by noise and to prevent an increase in noise levels caused by reflections. The use of one building to shield another can significantly reduce overall noise control costs, particularly if the shielding structure is insensitive to noise. An example would be placing a detached garage nearest the noise source to shield the house or backyard. Site design should guard against creating reflecting surfaces that may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dBA. The open end of U-shaped buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise to a noise-sensitive area unless carefully located.

2.10.4 Building Facades

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through the acoustical design of building facades. Standard construction practices provide a noise reduction of 10–15 dBA for building facades with open windows, and a noise reduction of approximately 25 dBA when windows are closed (Table 4). An exterior-to-interior noise reduction of 25 dBA can be obtained by requiring that building design include adequate ventilation systems, which would allow windows facing a noise source to remain closed, even during periods of excessively warm weather.

Where greater noise reduction is required, acoustical treatment of the building facade may be necessary. Reducing relative window area is the most effective control technique, followed by providing acoustical glazing (e.g., thicker glass or increased air space between panes) within frames with low air infiltration rates, using fixed (i.e., non-movable) acoustical glazing, or eliminating windows. Noise transmitted through walls can be reduced by increasing wall mass (e.g., using stucco or brick in lieu of wood siding), or isolating wall members by using double or staggered stud walls, while noise transmitted through doorways can be lessened by reducing door area, using solid-core doors, or sealing door perimeters with suitable gaskets. Noise-reducing roof treatments include using plywood sheathing under roofing materials.

Table 4: Noise Reduction Afforded by Common Building Construction

Construction Type	Typical Occupancy	General Description	Range of Noise Reduction (dB)[1]
1	Residential, Commercial, Schools	Wood frame, stucco, or wood sheathing exterior. Interior drywall or plaster. Sliding glass	15-20

Table 4: Noise Reduction Afforded by Common Building Construction

		windows, with windows partially open.	
2	Same as 1 above	Same as 1 above, but with windows closed.	25-30
3	Commercial, Schools	Same as 1 above, but with fixed 0.25-inch plate glass windows.	30-35
4	Commercial, Industrial	Steel or concrete frame, curtain wall, or masonry exterior wall. Fixed 0.25-inch plate glass windows.	35-40
Source: California Airport Land Use Planning Handbook, 2002.			

2.10.5 Landscaping

While the use of trees and other vegetation is often thought to provide significant noise attenuation, approximately 100 feet of dense foliage – with no visual path extending through the foliage – is required to achieve a 5 dBA attenuation of traffic noise. Thus, the use of vegetation as a noise barrier is not considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used, however, to acoustically "soften" intervening ground between a noise source and a receiver, increasing ground absorption of sound, and thus, increasing the attenuation of sound with distance. Planting trees and shrubs also offers aesthetic and psychological value, and it may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels would be largely unaffected.

3.0 Ground-Borne Vibration Fundamentals

3.1 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and mainly exists indoors since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves. Several different methods are used to quantify vibration amplitude. Typical human reaction and effect on buildings due to ground-borne vibration is shown in Table 5. Exhibit F illustrates common vibration sources and the human and structural responses to ground-borne vibration

PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude

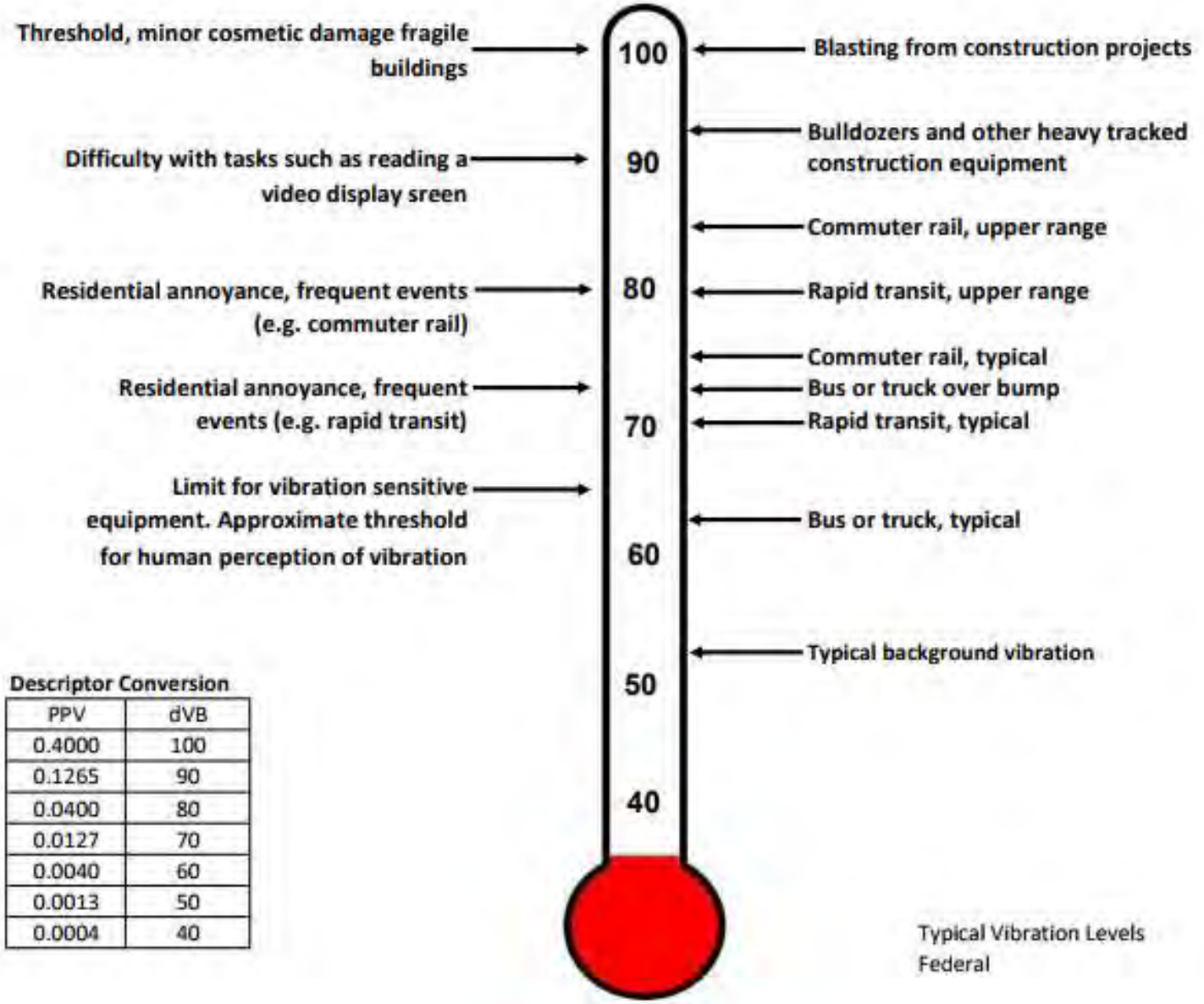
VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

Table 5: Typical Human Reaction and Effect on Buildings Due to Ground-Borne Vibration

Vibration Level Peak Particle Velocity (PPV)	Human Reaction	Effect on Buildings
0.006–0.019 in/sec	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage
Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2020.		

Exhibit F

Typical Ground-Borne Vibration Levels



Descriptor Conversion

PPV	dVB
0.4000	100
0.1265	90
0.0400	80
0.0127	70
0.0040	60
0.0013	50
0.0004	40

Typical Vibration Levels
Federal

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

The California Department of Transportation has published one of the seminal works for the analysis of ground-borne noise and vibration relating to transportation- and construction-induced vibrations and although the project is not subject to these regulations, it serves as useful tools to evaluate vibration impacts. (California Department of Transportation, 2020).

3.3 Vibration Propagation

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation. As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. This drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 Regulatory Setting

The proposed project is located in the City of San Jacinto, and noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

4.1.1 Noise Control Act of 1972

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows:

- The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies.
- The Federal Aviation Agency (FAA) regulates noise from aircraft and airports.
- The Federal Highway Administration (FHWA) regulates noise from the interstate highway system.
- The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being constructed adjacent to a highway or that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement Codes and land use planning.

The intent of a General Plan Noise Element is to set goals to limit and reduce the effects of noise intrusion and to set acceptable noise levels for varying types of land uses. To this end, the City has the authority to set land use noise standards and restrict private activities that generate excessive or intrusive noise. However, it should be recognized that the City does not have the authority to regulate all sources of noise within the City and various other agencies may supersede City authority. The following is a summary of some federal agency requirements that apply to noise within the Study Area.

4.1.2 Federal Highway Administration

Federal Highway Administration State routes and freeways that run through the City are subject to Federal funding and, as such, are under the purview of the Federal Highway Administration (FHWA). The FHWA has developed noise standards that are typically used for Federally funded roadway projects or projects that require either Federal or Caltrans review. These noise standards are based on Leq and L10 values and are included in Table 6, FHWA Design Noise Levels.

Table 6: FHWA Design Noise Levels

Activity Category	Description of Category	Design Noise Levels[1]	
		Leq (dBA)	L10 (dBA)
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Examples include natural parks or wildlife habitats.	57 (exterior)	60 (exterior)
B	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.	67 (exterior)	70 (exterior)
C	Developed lands, properties, or activities not included in Categories A or B, above.	72 (exterior)	75 (exterior)
D	Undeveloped lands.		
E	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.	52 (interior)	55 (interior)

Source: FHWA Noise Standard. 23 Code of Federal Regulations 772.
Notes: Either Leq or L10 (but not both) design noise levels may be used on a project.

U.S. Department of Housing and Urban Development
The Department of Housing and Urban Development (HUD) issues formal requirements related specifically to standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established three zones. These include:

- 65 dBA Ldn or less - an acceptable zone where all projects could be approved,

- Exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn - a normally unacceptable zone where mitigation measures would be required, and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area, and

- Exceeding 75 dBA Ldn - an unacceptable zone in which projects would not, as a rule, be approved.

4.1.3 The Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) developed guidance for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies of the percentage of persons highly annoyed by aircraft noise. These recommendations are often used for different types of environmental noise such as traffic noise.

A readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. In areas where the existing noise levels range from 60 to 65 dBA Ldn, a 3 dBA barely perceptible noise level increase is considered significant. When the existing noise levels already exceed 65 dBA Ldn, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact since it likely contributes to an existing noise exposure exceedance.

4.2 State Regulations

4.2.1 California Department of Health Services

The California Department of Health Services (DHS) Office of Noise Control studied the correlation between noise levels and their effects on various land uses. As a result, the DHS established four categories for judging the severity of noise intrusion on specified land uses. These categories are presented in the State Land Use Compatibility for Community Noise Exposure table (California Office of Noise Control, 2017). As part of the 2040 General Plan update, the City has adopted a slightly modified version of this table as a planning tool. This table is discussed further and presented in Section 4.3.1.

4.2.2 Title 24 of the California Building Code

Section 1206.4 of the California Building Code (2019), Title 24, Part 2, Chapter 12 (Interior Environment), establishes an interior noise criterion of 45 dBA CNEL for “dwelling units”. Per California Building Code, Title 24, Part 2, Chapter 2 (Definitions), a residential dwelling unit is intended to be used as a residence that is primarily long-term in nature. Residential dwelling units do not include transient lodging, inpatient medical care, licensed long-term care, and detention or correctional facilities.

California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures), applies to all proposed buildings that people may occupy but are not residential dwelling units, with the exception of factories, stadiums, storage, enclosed parking structures, and utility buildings. Section 5.507.4.1 requires wall and roof-ceiling assemblies exposed to the noise source making up the building, or addition envelope or altered envelope, shall meet a composite Sound Transmission Class (STC) rating of at least 50 or a composite Outdoor to Indoor Transmission Class (OITC) rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30.

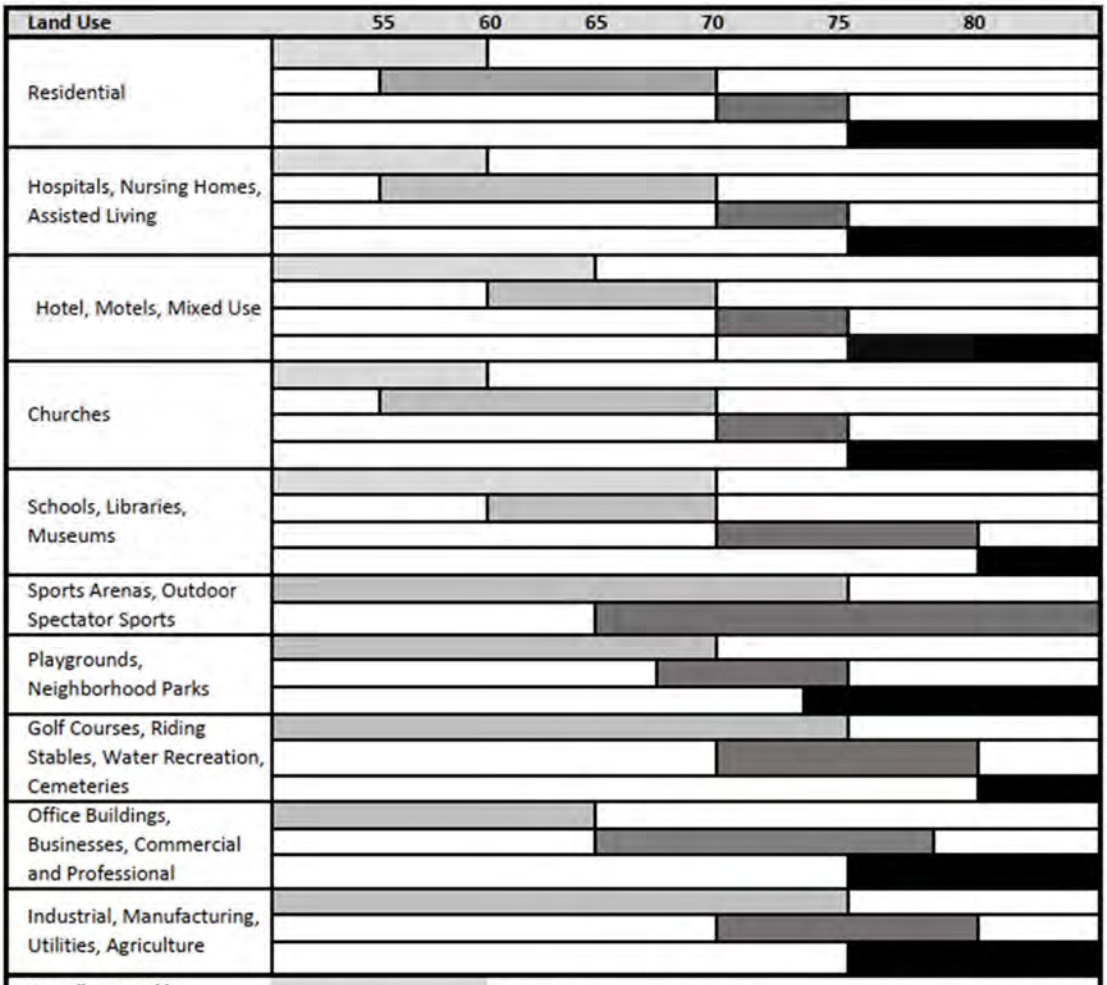
4.3 City of San Jacinto

Existing planning policies and noise regulations applicable to noise within the City of San Jacinto are presented in the Noise Element of the City of San Jacinto General Plan and within the City of San Jacinto Municipal Code. Applicable goals, policies, and regulations are presented below.

4.3.1 City of San Jacinto General Plan

The primary noise sources in the study area are transportation noise and stationary noise sources. Transportation noise refers to noise from automobile use, trucking, and nearby airport operations. Typical stationary noise sources include but are not limited to HVAC Systems, Pump Stations, Cooling

Table 7: PS-1 Land Use Compatibility for Community Noise Exposure (dBA, CNEL)



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

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

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

Clearly Unacceptable
New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 2017.

Notes:

1. Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.

2. Outdoor activity areas for residential development are considered to be the backyard patios or decks of single-family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.

Towers/Evaporative Condensers, Lift Stations, Emergency Generators, Boilers, Steam Valves, Steam Turbines, Generator, Fans, Air Compressors, Heavy Equipment, Conveyor Systems, Transformers, Pile Drivers, Grinders, Drill Rigs, Gas or Diesel Motors, Welders, Cutting Equipment, Outdoor Speakers, Blowers and Pneumatic Equipment.

Noise/Land Use Compatibility

Table 7, Land Use Compatibility for Community Noise Exposure presents a land use compatibility chart for community noise derived from a similar table originally prepared by the California Office of Noise Control (2017). This table is proposed to be included in the 2040 General Plan Noise Element. The table identifies "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" exterior noise levels for various land uses. A "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the

noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements. While this land use compatibility chart is based on a 24-hour value, the City is aware that some land uses are not occupied on a 24-hour basis, and a descriptor (such as Ldn or CNEL) may be overly restrictive in siting these types of sensitive land uses. Such uses may include but are not limited to, schools, libraries, and churches. In these cases, a more appropriate standard would consider the time of occupancy of the land use. Here, the City recommends the use of a 65 dBA, 12-hour Leq (Leq(12)) that includes those hours of actual use. (If a facility is to be used in excess of 12 hours per day, the CNEL standard should be used.)

General Plan Goals, Policies and Actions

The proposed updated 2040 General Plan Noise Element includes the following goals, policies and actions that are intended to avoid or reduce noise impacts related to transportation, stationary, and construction related noise sources.

Goal PS-1 Noise

A comfortable community environment that is free from excessive noise pollution.

PS-6 Policies

PS-6.1 Noise Exposure. Consider the noise compatibility of existing and future development when making land use planning decisions. Require development and infrastructure projects to be consistent with the land use compatibility standards contained in Tables PS-1, PS-2, PS-3, and PS-4 to ensure acceptable noise exposure levels for existing and future development.

<Table 8, Next Page>

Table 8: PS-2 Allowable Interior Noise Levels Due to Transportation Noise Sources

Land Use[1]	CNEL, dBA	Leq. dBA[2]
Residential	45	
Motels/Hotels	45	
Mixed-Use	45	
Hospitals, Nursing Homes, Assisted Living	45	
Theaters, Auditoriums		35
Churches		40
Office Buildings		45
Commercial, Retail		55
Schools, Libraries, Museums		45
Playgrounds, Neighborhood Parks		--
Industrial		45
Golf Courses, Water Recreation		--

Notes:
1. Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.
2. Determined for a typical worst-case hour during periods of use.

PS-6.2 Noise Mitigation. Require new development to mitigate excessive noise to the standards indicated in Tables PS-1, PS-2, PS-3, and PS-4 to the extent feasible through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitives receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.

PS-6.3 Acoustical Studies. Require acoustical studies for new discretional developments and transportation improvements that have the potential to affect existing noise-sensitive uses such as schools, hospitals, libraries, care facilities, and residential areas, and for projects that would introduce new noise-sensitive uses into an area where existing noise levels may exceed the thresholds identified in this element. For projects that are required to prepare an acoustical study, the following mobile and stationary noise source criteria shall be used to determine the significance of those impacts.

A. Mobile Noise Sources:

Where existing traffic noise levels are within or below the "normally acceptable" noise criteria at the affected land use (see Table PS-1), a readily perceptible 5 dBA CNEL or greater increase in roadway noise levels will be considered significant;

Where existing noise levels fall within the "conditionally acceptable" noise criteria at the affected land use, a barely perceptible 3 dBA CNEL or greater increase in roadway noise levels will be considered significant; and

Where existing noise levels exceed the "conditionally acceptable" noise criteria at the affected land use, a 1.5 dBA CNEL or greater increase in roadway noise levels will be considered significant.

B. Stationary and Non-Transportation Noise Sources

A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

PS-6.4 Roadway Noise. Encourage nonmotorized transportation alternatives for local trips and the implementation of noise sensitivity measures in the public realm, including traffic-calming road design, lateral separation, natural buffers, and setbacks to decrease excessive motor vehicle noise.

PS-6.5 Vehicular Traffic. Monitor and enforce existing speed limits and motor vehicle codes requiring adequate mufflers on all types of vehicles traveling through the city.

PS-6.6 Commercial Noise. Require the use of noise attenuation measures, including screening and buffering techniques, for all new commercial development expected to produce excessive noise; in existing cases where the City's noise standards are exceeded, work with Code Enforcement to require compliance.

PS-6.7 Construction Noise. Require construction activities to reduce noise impacts on adjacent uses to the criteria identified in Tables PS-3 and PS-4, or, if the criteria cannot be met, to the maximum extent feasible complying with Chapter 8.40 of the San Jacinto Municipal Code (Noise Control) and best-use practices. Construction activities outside of the permitted construction hours identified in the San Jacinto Municipal Code may be approved on a case-by-case basis by the Director of Community Development.

PS-6.8 Temporary Special Events. Temporary special events including, but not limited to, festivals, concerts, parades, and other similar activities may be allowed to exceed the noise standards established in this General Plan and the standards established by Chapter 8.40 of the San Jacinto Municipal Code (Noise Control) through issuance of a temporary use permit (see Section 17.640 of the San Jacinto Municipal Code (Temporary Use Permits).

PS-6.9 Temporary Emergency Operations and Emergency Equipment Usage. Temporary emergency operations or emergency equipment usage is exempt from the noise standard criteria set by this element.

PS-6.10 Interjurisdictional Coordination. Coordinate with neighboring cities to minimize noise conflicts between land uses along the City's boundaries.

PS-6 Actions

PS-6a Review Chapter 8.40 of the San Jacinto Municipal Code and update as necessary to ensure that the noise standards are consistent with this General Plan, including Tables PS-3 and PS-4, and to require new residential, mixed-use with a residential component, and other noise-sensitive development to be designed to minimize noise exposure to noise sensitive uses through incorporation of site planning and architectural techniques. The update shall also include noise standards for residential uses within a mixed-use development, which may differ from other adopted residential noise standards.

PS-6b Review new development projects for compliance with the noise requirements established in this General Plan, including the standards established in Tables PS-1, PS-2, PS-3, and PS-4. Where necessary, require new development to mitigate excessive noise through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials such as rubberized asphalt.

PS-6c Require acoustical studies for all new discretionary projects, including those related to development and transportation, which have the potential to generate noise impacts which exceed the standards identified in this General Plan. The studies shall include representative noise measurements, estimates of existing and projected noise levels, and mitigation measures necessary to ensure compliance with this element.

PS-6d Review the locations of proposed projects with the potential to generate stationary noise in relation to sensitive receptors through the discretionary project review process. Limit delivery or service hours for stores and businesses with loading areas, docks, or trash bins that front, side, border, or gain access on driveways next to residential and other noise sensitive areas. Only approve exceptions if full compliance with the nighttime limits of the noise regulations is achieved.

PS-6e Require all construction activity to comply with the limits (maximum noise levels, hours and days of allowed activity) established in the City noise regulations (Title 24 California Code of Regulations, Noise Ordinance) in order to reduce impacts associated with temporary construction noise to the extent feasible. Trucks associated with construction activities shall follow the designated truck routes described in the Mobility Element.

PS-6f Actively enforce the standards identified within the City's Noise Ordinance and Noise Plan in order to reduce impacts to the extent feasible. Update and amend the Noise Ordinance and Plan as appropriate. Provide a link on the City's website for those to file complaints against activities and uses that may be violating the Noise Ordinance.

PS-6g Require new residential projects located adjacent to railroad lines to follow the FTA vibration screening distance criteria to ensure that residential uses are not exposed to vibration exceeding 72 VdB for frequent events (more than 70 events per day), 75 VdB for occasional events (30-70 events per day), or 80 VdB for infrequent events (less than 30 events per day).

PS-6h Require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to the building. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.

PS-6i During subsequent updates to Section 8.40 of the Municipal Code, review and update Section 8.40.090, Construction Activity Noise Regulations, as needed in order to allow provisions for emergency repairs, exceptional circumstances, and reasonable Sunday construction and maintenance activities, while continuing to achieve the objectives of providing a nuisance-free noise environment.

4.3.3 City of San Jacinto Municipal Code

The Noise Ordinance of the Municipal Code is designed to protect people from non-transportation noise sources such as construction activity; commercial, industrial, and agricultural operations; machinery and pumps; and air conditioners. Enforcement of the ordinance ensures that adjacent properties are not exposed to excessive noise from stationary sources. Enforcing the ordinance includes requiring proposed development projects to show compliance with the ordinance, including operating in accordance with noise levels and hours of operations limits placed on the project site. The City also requires construction activity to comply with established work schedule limits. The ordinance is reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

The City of San Jacinto Noise Ordinance consists of Sections 8.40.010-8.40.210 the City's Municipal Code includes noise-related definitions, identifies designated noise zones, outlines noise level measurement procedures, identifies exterior and interior noise standards as well as other standards pertaining to noise impacts from one land use to another, and discusses consequences for violation of such standards and options for noise abatement.

Ordinance 8.40.030 categorizes different types of land uses into Noise Zones (Table 9). These zones are to be referred to when interpreting which noise standards apply to any particular situation. Allowable Exterior Noise Level standards are provided in Section 8.40.040 of the Noise Ordinance and are presented in Table 10. Allowable Interior Noise Level standards provided in Section 8.40.050 of the Noise Ordinance and are presented in Table 11.

Section 8.40.060 of the Noise Ordinance identifies certain activities as exempt from the exterior and interior noise standards presented in Tables 10 and 11 including recreational and sporting activities

related to public school activities, occasional outdoor gatherings, public dances, shows, and sporting and entertainment events provided that they are conducted pursuant to an approval, authorization, contract, lease, permit or sublease by the appropriate public entity.

Specific Ordinances are provided to control noise associated with construction activities, property maintenance, agricultural activities, ice cream trucks, barking dogs and other animal noise, construction noise, sound amplifying equipment, heating, venting, pool/spa and air conditioning, motor vehicles, and other agency generated noise. The construction noise criteria presented in Section 8.40.090 are specifically pertinent to this analysis of the development of the proposed land-use plan.

The Community Development Department and Police Department cooperate to identify development or activities that violate the noise regulations. The City's Municipal Code gives the City the authority to enforce the noise standards through penalties and other abatement tactics. Noise generated by new development is effectively controlled through the site design review process, compliance with CEQA, and compliance with the City noise standards contained in this Noise Element and the Noise Ordinance of the Municipal Code. During these preliminary stages in the development process, potential noise impacts shall be identified, and mitigation measures can be imposed, as appropriate. When reviewing proposed non-residential projects, noise generation and potential impacts to surrounding development are considered. An acoustical analysis is required for projects that will generate noise potentially affecting sensitive receptors. Where significant impacts are identified, mitigation measures will be required.

Table 9: Designated Noise Zones

Noise Zone I	All single-family residential properties
Noise Zone II	All multifamily residential properties and mobile home parks
Noise Zone III	All commercial property
Noise Zone IV	The residential portion of mixed-use properties
Noise Zone V	All manufacturing or industrial properties and all other uses
Source: City of San Jacinto Municipal Code Section 8.40.030	

<Table 10, next page>

Table 10: PS-3 Allowable Exterior Noise Level[1] Due to Stationary Noise Sources

Type of Land Use	Allowed Equivalent Noise Level, dBA Leq[2]	
	7:00 AM to 10:00 PM	10:00 PM to 7:00 AM
Single-Family Residential	65	45
Multi-Family Residential and Mobile Home Parks	65	50
Commercial Property	65	60
Residential Portion of Mixed Use	70	70
Manufacturing and Industrial, Other Uses	70	70

Source: City of San Jacinto Municipal Code 8.40.040

Notes:

1. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.
2. Measurements for compliance are made on the affected property pursuant to Municipal Code Section 8.40.160.
3. It is unlawful for any person at any location within the incorporated area of the city to create noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:
   a. The noise standard for the applicable zone for any fifteen (15) minute period;
   b. A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).
4. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.
5. The residential portion of mixed-use standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use if the noise originates from that commercial property or use.
6. If the measurement location is on a boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply.

Table 11: PS-4 Allowable Interior Noise Level[1] Due to Stationary Noise Sources

Type of Land Use	Allowed Equivalent Noise Level, dBA Leq[2]	
	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
Single-Family Residential	45	40
Multi-Family Residential and Mobile Home Parks	45	40
Commercial Property	45	40
Residential Portion of Mixed Use	45	40

Source: City of San Jacinto Municipal Code 8.40.050

Notes:

1 If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.
2. Measurements for compliance are made on the affected property pursuant to Municipal Code Section 8.40.160.
3. It is unlawful for any person at any location within the incorporated area of the city to create noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:
   a. The noise standard for the applicable zone for any fifteen (15) minute period;
   b. A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).
4. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.
5. The residential portion of mixed-use standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use if the noise originates from that commercial property or use.
6. If the measurement location is on a boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply.

Section 8.40.090 – Construction Activity Noise Regulations of the Municipal Code exempts construction activities from compliance with the noise standards presented in Tables 10 and 11 as long as the activities comply with the following criteria:

Weekdays and Saturdays. No person shall engage in construction, remodeling, digging, grading, demolition, or any other related building activity, nor shall operate any tool, equipment or machine, on any weekday or Saturday except between the hours of seven a.m. and seven p.m.

Sundays and Holidays. No person shall engage in construction, remodeling, grading, demolition, or other related building activity, nor shall operate any tool, equipment, or machine, on any Sunday or any federal holiday.

No landowner, construction company owner, contractor, subcontractor, or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment, or machine in violation of the provisions of this section.

Exceptions.

1. The provisions of this section shall not apply to emergency construction work performed by a private party when authorized by the city manager or his or her designee;

2. The maintenance, repair, or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the city of San Jacinto, or its employees, contractors, or agents, unless:

   a. The City manager or a department head determines that the maintenance, repair, or improvement is immediately necessary to maintain public services, or

   b. The maintenance, repair, or improvement is of a nature that cannot feasibly be conducted during normal business hours, or

   c. The City Council has approved project specifications, contract provisions, or an environmental document that specifically authorizes construction during hours of the day that would otherwise be prohibited pursuant to this section;

3. Any construction that complies with the noise limits specified in Section 8.40.040 or 8.40.050.

Section 8.40.070 establishes qualitative criteria for assessing noise impacts by making it unlawful for any person or property owner within the City to make, cause or allow to be made any loud, excessive, impulsive, or intrusive noise, disturbance, or commotion that disturbs the peace and quiet of any area or that causes discomfort or annoyance to any reasonable person of normal sensitivities in the area. The types of loud, disturbing excessive, impulsive, or intrusive noise may include, but shall not be

limited to, yelling, shouting, hootings, whistling, singing, playing a musical instrument, or emitting or transmitting any loud music or noise from any mechanical or electrical sound-making or sound-amplifying device.

The factors, standards, and conditions that may be considered in determining whether a violation of the provisions of this section has been committed include, but are not limited to, the following:

1. The level of the noise;
2. The level and intensity of the background (ambient) noise, if any;
3. The proximity of the noise to residential or commercial sleeping areas;
4. The nature and zoning of the area within which the noise emanates;
5. The density of inhabitation of the area within which the noise emanates;
6. The time of day and night the noise occurs;
7. The duration of the noise;
8. Whether the noise is constant, recurrent, or intermittent;
9. Whether the noise is produced by a commercial or noncommercial activity;
10. Whether the use is lawful under the provisions of this code and whether the noise could reasonably be expected from the activity or allowed use.

5.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

5.1 Noise Measurement Procedure and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as the first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

MD conducted the sound level measurements in accordance with the City and Caltrans technical noise specifications. All measurements equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed 5-feet above the ground for all measurements
- Sound level meters were calibrated before and after each measurement
- Following the calibration of equipment, a windscreen was placed over the microphone
- Frequency weighting was set on “A” and slow response
- Results of the long-term noise measurements were recorded on field data sheets
- During any short-term noise measurements, any noise contaminations such as barking dogs, local traffic, lawnmowers, or aircraft flyovers were noted
- Temperature and sky conditions were observed and documented

5.2 SoundPLAN Noise Modeling

SoundPLAN acoustical modeling software was utilized to create existing and existing plus project plus cumulative traffic noise level contours for all General Plan designated roadways. Model parameters included average daily traffic volumes, day/evening/night split, roadway classification, width, speed, and truck mix. Surfaces adjacent to all modeled roadways were assumed to have a “hard site” to predict worst-case, conservative noise levels. A hard site, such as pavement, is highly reflective and does not attenuate noise as quickly as grass or other soft sites. Possible reductions in noise levels due to intervening topography and buildings were not accounted for in this analysis. Roadway modeling assumptions utilized for the technical study are provided in Table 12 (Existing Conditions) and Table 13 (2040 Future Conditions), and in Appendix A.

A summary of the model parameters and REMEL adjustments are presented below.

- Roadway classification – (e.g., freeway, major arterial, arterial, secondary, collector, etc.),
- Roadway Active Width – (distance between the center of the outermost travel lanes on each side of the roadway)
- Average Daily Traffic Volumes (ADT), Travel Speeds, Percentages of automobiles, medium trucks, and heavy trucks
- Roadway grade and angle of view
- Site Conditions (e.g., soft vs. hard)
- Percentage of total ADT which flows each hour throughout a 24-hour period

5.3 FHWA Traffic Noise Prediction Model

The FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) was utilized to model and to compare existing traffic noise levels to 2040 Future noise levels. The FHWA model arrives at the predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Roadway modeling assumptions utilized for the technical study are provided in Table 12 (Existing Conditions) and Table 13 (2040 Future Conditions) indicates the roadway parameters and vehicle distribution utilized for this study. The vehicle mix indicates the percentage of automobiles, medium trucks, and heavy trucks for each segment and is presented as auto/medium/heavy.

Table 12: Existing Conditions Roadway Noise Modeling Parameters

Roadway	Segment Limits	Existing ADT[1]	Vehicle Mix[1,2]	Speed[3] (MPH)	Existing Roadway[4]	Existing GP Classification[4]
Cottonwood Ave	Warren Road to Cawston Ave	5,300	90/7/3	50	2D	Urban Arterial
Cottonwood Ave	Cawston Ave to Sanderson Ave	6,750	90/7/3	50	2D	Arterial
Cottonwood Ave	Sanderson Ave to Lyon Ave	6,750	90/7/3	45	2U	Arterial
Cottonwood Ave	Lyon Ave to State St	6,750	90/7/3	45	2U	Arterial
Esplanade Ave	Warren Road to Cawston Ave	5,800	98/2/0	40	2U	Major
Esplanade Ave	Cawston Ave to Sanderson Ave	6,800	98/2/0	40	2U	Major
Esplanade Ave	Sanderson Ave to Lyon Ave	9,550	98/2/0	40	2U	Major
Esplanade Ave	Lyon Ave to State St	13,350	98/2/0	45	4D	Major
Esplanade Ave	State St to San Jacinto Ave	18,400	98/2/0	45	4D	Major
Esplanade Ave	San Jacinto Ave to Hewitt St	15,150	98/2/0	45	4D	Major
Esplanade Ave	Hewitt St to Ramona Exwy	9,550	98/2/0	45	4D	Major
Main St	Ramona Exwy to Soboba Road	8,650	96/4/0	40	4D	Secondary
Ramona Exwy	West of Warren Road	22,200	97/2/1	55	2U	Freeway
Ramona Exwy	Warren Road to Sanderson Ave	23,750	97/2/1	65	4D	Freeway
Ramona Exwy	Sanderson Ave to Lyon Ave	27,050	97/2/1	65	6D	LACH
Ramona Exwy	Lyon Ave to State St	25,050	97/2/1	55	6D	LACH

Roadway	Segment Limits	Existing ADT[1]	Vehicle Mix[1,2]	Speed[3] (MPH)	Existing Roadway[4]	Existing GP Classification[4]
Ramona Exwy	State St to San Jacinto Ave	20,150	97/2/1	55	4D	LACH
Ramona Exwy	San Jacinto Ave to Main St	10,850	90/7/3	65	4D	Urban Arterial
Ramona Exwy	Main St to 7th St	11,000	90/7/3	55	2D	Urban Arterial
Ramona Exwy	7th St to Esplanade Ave	11,000	90/7/3	55	2D	Urban Arterial
Ramona Exwy	Esplanade Ave to Hemet St	16,250	90/7/3	55	2U	Urban Arterial
San Jacinto Ave	Main St to 7th St	12,650	98/2/0	40	2D	Major
San Jacinto Ave	7th St to Esplanade Ave	18,600	98/2/0	40	4U	Major
San Jacinto Ave	South of Esplanade Ave	21,546	98/2/0	40	4D	Major
Sanderson Ave	Ramona Exwy to Ramona Blvd	23,515	90/7/3	55	4D	Urban Arterial
Sanderson Ave	Ramona Blvd to Cottonwood Ave	23,515	90/7/3	55	4D	Urban Arterial
Sanderson Ave	Cottonwood Ave to 7th St	28,500	90/7/3	55	4D	Urban Arterial
Sanderson Ave	7th St to Esplanade Ave	6,700	90/7/3	55	4D	Urban Arterial
7th St	Warren Ave to Sanderson Ave	9,650	96/4/0	45	2U	Secondary
7th St	Sanderson Ave to Lyon Ave	6,300	96/4/0	45	4D	Secondary
7th St	Lyon Ave to State St	9,650	96/4/0	45	2D	Secondary
7th St	State St to San Jacinto Ave	11,200	96/4/0	30	4D	Secondary
7th St	San Jacinto Ave to Hewitt St	8,500	96/4/0	30	2D	Secondary
7th St	Hewitt St to Ramona Exwy	9,550	96/4/0	25	2U	Secondary
State St	College Entrance to Community Coll.	14,950	98/2/0	45	2U	Major
State St	Community College to Ramona Exwy	16,650	98/2/0	45	2D	Major
State St	Ramona Exwy to Ramona Blvd	22,050	98/2/0	45	4D	Major
State St	Ramona Blvd to Cottonwood Ave	19,650	98/2/0	45	4D	Major
State St	Cottonwood Ave to 7th St	5,550	98/2/0	45	4D	Major
State St	7th St to Esplanade Ave	6,700	98/2/0	45	4D	Major
State St	South of Esplanade Ave	19,520	98/2/0	45	4D	Major
Warren Road	Ramona Exwy to Esplanade Ave	11,778	90/7/3	55	2U	Arterial

Notes:
1) Derived from turn counts, and vehicle mix provided in TIA for City of San Jacinto General Plan, Kittleson Associates, 2021; County of Riverside Vehicle Counts (WEB COUNTS (rctlma.org); Baypoint Preparatory Academy TIA, June 26, 2018; and San Jacinto Retail Center TIA, May 15, 2018.
2) % of Automobiles/Medium Trucks/Heavy Trucks.
3) Speed was modeled as posted.
4) Existing roadway configuration: 2U = two-lane undivided, 2D = two-lane divided, 4U = four-land divided, 4D = four-lane divided, 6D = six-lane divided, LACH = Limited Access Conventional Highway.

Table 13: 2040 Future Conditions Roadway Noise Modeling Parameters

Roadway	Segment Limits	2040 Future ADT[1]	Vehicle Mix[2]	Speed[3] (MPH)	2040 GP Roadway Classification[4]
Cottonwood Ave	Cawston Ave to Sanderson Ave	12,438	90/7/3	45	Arterial 4U
Cottonwood Ave	Warren Road to Cawston Ave	12,438	90/7/3	45	Arterial 4U
Cottonwood Ave	Sanderson Ave to Lyon Ave	12,438	90/7/3	45	Arterial 4U
Cottonwood Ave	Lyon Ave to State St	12,438	90/7/3	45	Arterial 4U
Esplanade Ave	Warren Road to Cawston Ave	14,997	90/7/3	40	Arterial 4D
Esplanade Ave	Cawston Ave to Sanderson Ave	14,997	90/7/3	40	Arterial 4D
Esplanade Ave	Sanderson Ave to Lyon Ave	14,997	90/7/3	40	Arterial 4D
Esplanade Ave	Lyon Ave to State St	14,997	90/7/3	40	Arterial 4D
Esplanade Ave	State St to San Jacinto Ave	14,997	90/7/3	40	Arterial 4D
Esplanade Ave	San Jacinto Ave to Hewitt St	14,997	90/7/3	40	Arterial 4D
Esplanade Ave	Hewitt St to Ramona Exwy	14,997	90/7/3	40	Arterial 4D
Main St	Ramona Exwy to Soboba Road	18,986	90/7/3	40	Arterial 4D
Ramona Exwy	West of Warren Road	34,141	97/2/1	65	LAH 6D
Ramona Exwy	Warren Road to Sanderson Ave	34,141	97/2/1	65	LAH 6D
Ramona Exwy	Sanderson Ave to Lyon Ave	34,141	97/2/1	65	LAH 6D
Ramona Exwy	Lyon Ave to State St	34,141	97/2/1	65	LAH 6D
Ramona Exwy	State St to San Jacinto Ave	46,217	90/7/3	65	Arterial 6D
Ramona Exwy	San Jacinto Ave to Main St	46,217	90/7/3	65	Arterial 6D
Ramona Exwy	Main St to 7th St	46,217	90/7/3	65	Arterial 6D
Ramona Exwy	7th St to Esplanade Ave	46,217	90/7/3	65	Arterial 6D
Ramona Exwy	Esplanade Ave to Hemet St	10,787	90/7/3	65	Arterial 6D
San Jacinto Ave	Main St to 7th St	25,700	90/7/3	45	Arterial 4D
San Jacinto Ave	7th St to Esplanade Ave	25,700	90/7/3	45	Arterial 4D
San Jacinto Ave	South of Esplanade Ave	25,700	90/7/3	45	Arterial 4D
Sanderson Ave	Ramona Exwy to Ramona Blvd	22,568	90/7/3	55	Arterial 4D
Sanderson Ave	Ramona Blvd to Cottonwood Ave	22,568	90/7/3	55	Arterial 4D
Sanderson Ave	Cottonwood Ave to 7th St	22,568	90/7/3	55	Arterial 4D
Sanderson Ave	7th St to Esplanade Ave	22,568	90/7/3	55	Arterial 4D
7th St	West of Sanderson Ave	9,667	98/2/0	45	Major 4D
7th St	Sanderson Ave to Lyon Ave	9,667	98/2/0	45	Major 4D
7th St	Lyon Ave to State St	9,667	98/2/0	45	Major 4D
7th St	State St to San Jacinto Ave	9,667	98/2/0	30	Major 4D
7th St	San Jacinto Ave to Hewitt St	9,667	98/2/0	30	Major 4D
7th St	Hewitt St to Ramona Exwy	9,667	98/2/0	25	Major 4D
State St	College Entrance to Community Coll.	26,714	90/7/3	45	Arterial 4D

Roadway	Segment Limits	2040 Future ADT[1]	Vehicle Mix[2]	Speed[3] (MPH)	2040 GP Roadway Classification[4]
State St	Comm College to Ramona Exwy	26,714	98/2/0	45	Arterial 4D
State St	Ramona Exwy to Ramona Blvd	37,777	98/2/0	45	Arterial 4D
State St	Ramona Blvd to Cottonwood Ave	37,777	98/2/0	45	Arterial 4D
State St	Cottonwood Ave to 7th St	37,777	98/2/0	45	Arterial 4D
State St	7th St to Esplanade Ave	37,777	98/2/0	45	Arterial 4D
State St	South of Esplanade Ave	25,912	98/2/0	45	Arterial 4D
Warren Road	Ramona Exwy to Esplanade Ave	5,372	90/7/3	55	Arterial 4D

Notes:

1) Traffic Study for the San Jacinto General Plan, Kittleson Associates, 2021.

2) % of Automobiles/Medium Trucks/Heavy Trucks

3) Speed was modeled per County of Riverside Modeling Standards.

4) Existing roadway configuration: 4U four land undivided, 4D = four lane divided, and 6D = six land divided. LAH = Limited Access Highway.

6.0 Existing Noise Environment

6.1 Noise Sources in the Study Area

6.1.1 General Land Use Noise

Existing land uses within the Study Area include single and multiple-family residential development, commercial, recreational, institutional, and industrial land uses. Noise sources associated with existing land uses include residential maintenance, parking lot noise, heating, and cooling system (HVAC) noise, property maintenance noise, trash truck noise, loading and unloading noise, and recreational noise.

6.1.2 Roadway Noise

6.2 Existing Noise Measurements

Six (6) long-term 24-hour noise measurements and seven (7) short-term 10-minute noise measurements were conducted throughout the Study Area to document the existing noise environment. Noise measurement locations are shown in Exhibit G.

6.2.1 Short-Term Noise Measurements

Seven short-term noise measurements (10-minute) were taken in order to document the daytime Leq level at different locations throughout the Study Area. Measured noise levels ranged between 67.3 and 75.7 dBA Leq. Vehicle noise associated with Ramona Expressway and other surface Streets were the primary sources of ambient noise. Secondary noise sources included typical residential activities and landscaping equipment. Noise measurement results are presented in Table 14. Field notes and meter output are provided in Appendix B.

Table 14: Short-Term Noise Measurement Summary

Noise Measurement Location	Approximate Location	Date	Time	A-Weighted Sound Level (dBA)						
				Leq	Lmax	Lmin	L2	L8	L25	L50
ST1	Warren Rd/Byrd St	05/07/19	1:01 PM	75.7	101.6	39.9	81.1	77.9	72.4	64.1
ST2	Palm Ave/7th St	05/07/19	1:27 PM	69.2	88.0	44.6	77.1	74.2	69.6	64.0
ST3	San Jacinto Blvd /Esplanade Ave	05/07/19	1:49 PM	69.5	87.0	57.2	77.1	71.9	68.8	65.9
ST4	Hewitt St/7th St	05/07/19	2:10 PM	67.3	82.6	54.5	75.2	70.5	66.9	64.7
ST5	Ramona Exp /Esplanade Ave	05/07/19	2:10 PM	71.6	86.5	54.0	79.4	75.4	72.0	68.2
ST6	Lyon Ave/ De Anza Dr	05/07/19	2:52 PM	69.0	92.2	48.6	77.5	69.5	64.6	61.9
ST7	Oakwood St /Santa Fe	05/07/19	3:43 PM	68.9	81.4	52.2	76.2	72.8	70.3	65.8

Notes:
dBA = A-weighted decibels, Leq = equivalent noise level, Lmax = maximum noise level, Lmin = minimum noise level, Ln = noise level exceeded n percent of the measurement period, 10-minute duration

6.2.2 Long-Term Noise Measurements

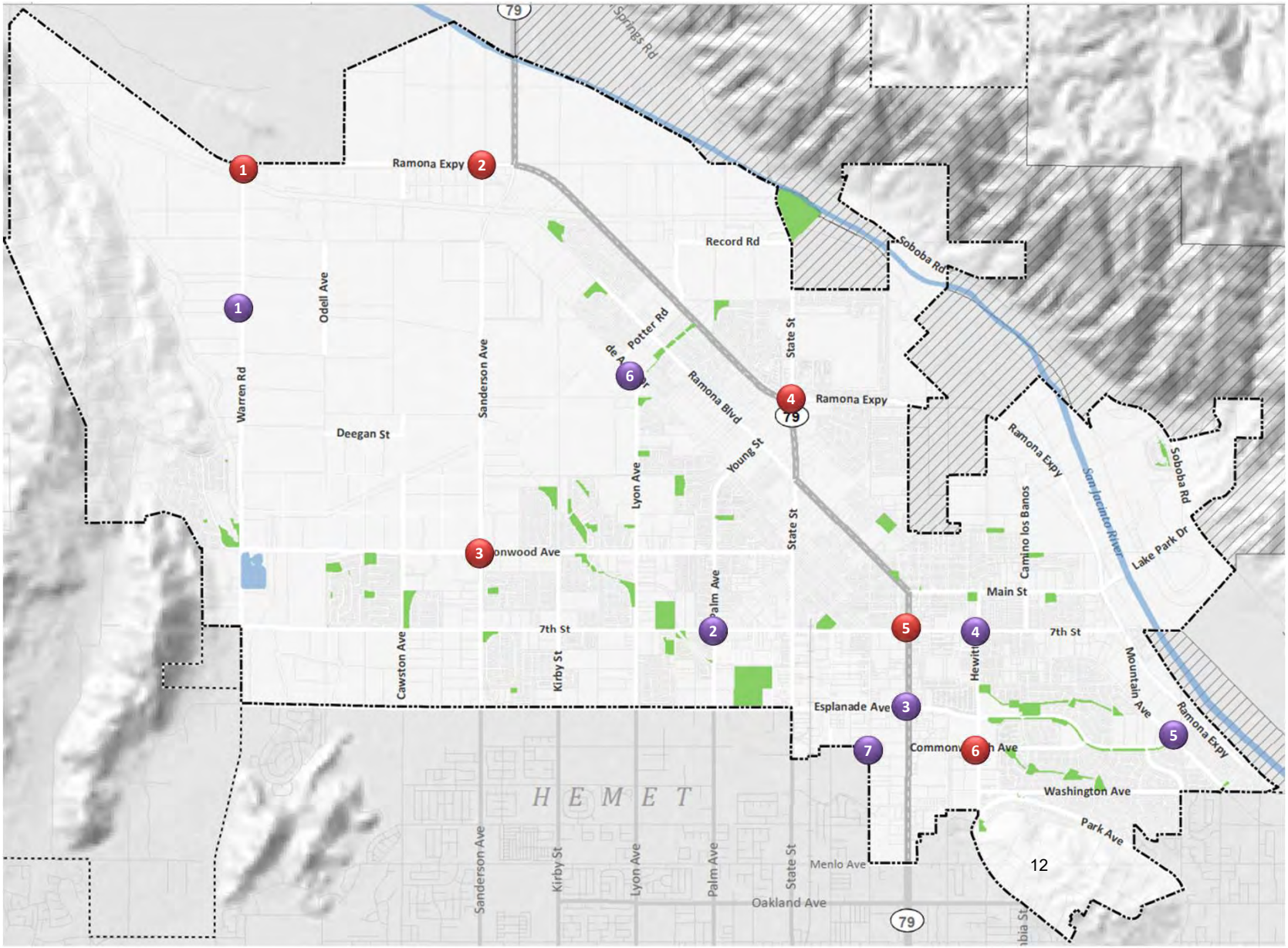
Six (6) long-term noise measurements (24 consecutive hours) were taken in order to document the Community Noise Equivalent Level (CNEL) at different locations throughout the Study Area. As shown in Table 15, the measured CNEL ranged between 67.9 and 74.6 dBA. The primary noise source was vehicle traffic. Table 15 also outlines the daytime (7 AM to 7 PM), evening (7 PM to 10 PM), and nighttime (10 PM to 7 AM) Leq levels at each location. These represent the average level over each time period (day/evening/night). Field notes and meter output are provided in Appendix B.

Table 15: Long-Term Noise Measurement Summary

Noise Measurement Location	Approximate Location	Date	Description	A-Weighted Sound Level (dBA)			
				Daytime Leq	Evening Leq	Nighttime Leq	CNEL
LT1	Warren Rd /Ramona Exp	5/7/19-5/8/19	Vehicle noise	67.4	66.5	63.1	70.4
LT2	Sanderson Ave /Ramona Exp	5/7/19-5/8/19	Vehicle noise	65.6	63.2	60.3	67.9
LT3	Sanderson Ave /Cottonwood Ave	5/8/19-5/9/19	Vehicle noise	67.8	66.2	64.7	71.7
LT4	State St /Ramona Exp	5/8/19-5/9/19	Vehicle noise	68.6	65.7	68.1	74.6
LT5	San Jacinto Ave /7th St	5/8/19-5/9/19	Vehicle noise	66.6	64.3	61.8	69.2
LT6	Hewitt St /Commonwealth Ave	5/8/19-5/9/19	Vehicle noise	73.1	69.2	65.4	73.9

Notes:
dBA = A-weighted decibels
Leq = equivalent noise level
Lmax = maximum noise level
Lmin = minimum noise level
Ln = noise level exceeded n percent of the measurement period
24-hour duration

Exhibit G
Noise Measurement Location Map



x = Short-Term measurement (10-MInute)

x = Long-Term measurement (24-Hour)

6.3 Existing Noise Modeling

The primary source of noise in San Jacinto results from transportation-related noise. The Ramona Expressway, Sanderson Avenue, and Warren Avenue, along with other major roadways create ambient noise levels that affect the overall quality of life in the community. Modeled existing noise levels provided in Table 16 and on Exhibit H, confirm that there are currently sensitive land uses in the project area that are exposed to noise levels that reach up to 70 dBA CNEL.

It should be noted that the modeled noise contours do not take into account factors such as existing buildings, walls, etc. that may reduce or in some cases, amplify noise sources. Measured noise levels provided in Tables 14 and 15, do take into account existing structures as well as other noise sources.

Those areas in the City that currently experience sound levels greater than 65 dBA CNEL are typically near major vehicular traffic corridors. Highway traffic noise levels typically depend on three factors: (1) the volume of traffic, (2) the average speed of traffic, and (3) the vehicle mix (i.e., the percentage of trucks versus automobiles in the traffic flow). Vehicle noise includes noises produced by the engine, exhaust, tires, and wind generated by taller vehicles. Other factors that affect the perception of traffic noise include the distance from the highway, terrain, vegetation, and natural and structural obstacles. While tire noise from automobiles is generally located at ground level, some truck noise sources may emanate from 12 feet or more above the ground.

Table 16: Existing Exterior Noise Levels Along Roadways

Roadway	Segment Limits	CNEL, dBA @50 ft	Distance to Contour (feet)			
			70 dBA	65 dBA	60 dBA	55 dBA
Cottonwood Ave	Warren Road to Cawston Ave	69.5	44	139	441	1,393
Cottonwood Ave	Cawston Ave to Sanderson Ave	69.5	44	141	445	1,406
Cottonwood Ave	Sanderson Ave to Lyon Ave	69.5	44	141	445	1,406
Cottonwood Ave	Lyon Ave to State St	69.5	44	141	445	1,406
Esplanade Ave	Warren Road to Cawston Ave	63.9	12	39	123	390
Esplanade Ave	Cawston Ave to Sanderson Ave	64.6	14	46	144	457
Esplanade Ave	Sanderson Ave to Lyon Ave	66.1	20	64	203	641
Esplanade Ave	Lyon Ave to State St	69.6	45	144	454	1,436
Esplanade Ave	State St to San Jacinto Ave	71.0	63	198	626	1,980
Esplanade Ave	San Jacinto Ave to Hewitt St	70.1	52	163	515	1,630
Esplanade Ave	Hewitt St to Ramona Exwy	68.1	32	103	325	1,027
Main St	Ramona Exwy to Soboba Road	67.1	26	81	257	812
Ramona Exwy	West of Warren Road	75.5	177	561	1,774	5,609
Ramona Exwy	Warren Road to Sanderson Ave	78.4	342	1,082	3,420	10,816
Ramona Exwy	Sanderson Ave to Lyon Ave	80.2	527	1,666	5,269	16,662
Ramona Exwy	Lyon Ave to State St	78.0	317	1,002	3,168	10,017
Ramona Exwy	State St to San Jacinto Ave	75.8	188	596	1,884	5,957

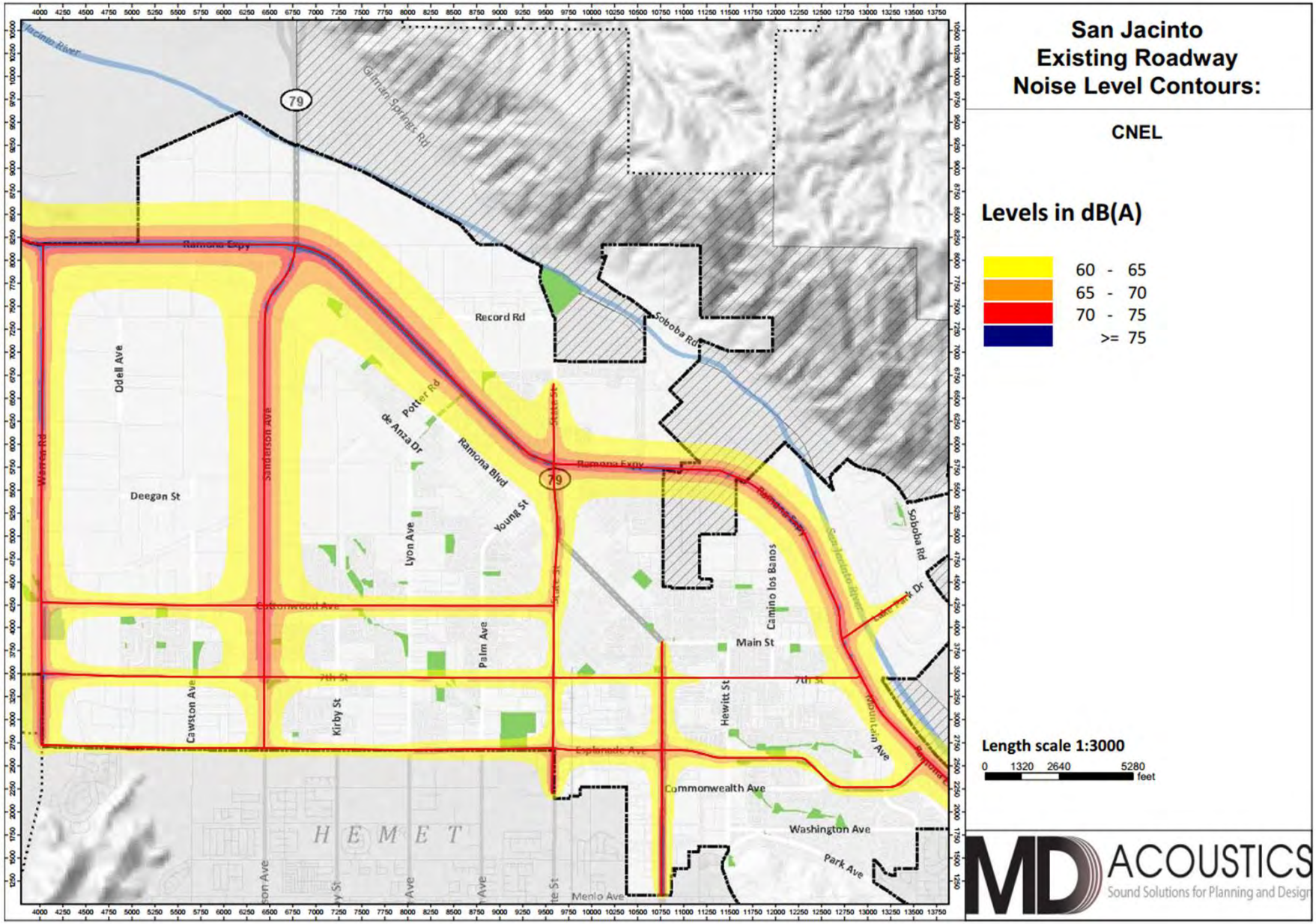
Roadway	Segment Limits	CNEL, dBA @50 ft	Distance to Contour (feet)			
			70 dBA	65 dBA	60 dBA	55 dBA
Ramona Exwy	San Jacinto Ave to Main St	75.6	181	571	1,806	5,711
Ramona Exwy	Main St to 7th St	73.5	111	352	1,114	3,523
Ramona Exwy	7th St to Esplanade Ave	73.5	111	352	1,114	3,523
Ramona Exwy	Esplanade Ave to Hemet St	75.1	161	509	1,610	5,090
San Jacinto Ave	Main St to 7th St	67.4	27	87	275	869
San Jacinto Ave	7th St to Esplanade Ave	69.7	46	146	462	1,462
San Jacinto Ave	South of Esplanade Ave	70.3	54	169	535	1,693
Sanderson Ave	Ramona Exwy to Ramona Blvd	77.4	273	862	2,725	8,619
Sanderson Ave	Ramona Blvd to Cottonwood Ave	77.4	273	862	2,725	8,619
Sanderson Ave	Cottonwood Ave to 7th St	78.2	330	1,045	3,303	10,446
Sanderson Ave	7th St to Esplanade Ave	71.9	78	246	777	2,456
7th St	West of Sanderson Ave	68.2	33	104	328	1,038
7th St	Sanderson Ave to Lyon Ave	67.0	25	79	251	793
7th St	Lyon Ave to State St	68.3	34	106	336	1,061
7th St	State St to San Jacinto Ave	65.2	17	53	167	527
7th St	San Jacinto Ave to Hewitt St	63.4	11	35	111	350
7th St	Hewitt St to Ramona Exwy	62.1	8	25	80	254
State St	College Entrance to Comm. Coll.	69.4	43	137	435	1,375
State St	Community College to Ramona Exwy	69.9	48	153	484	1,531
State St	Ramona Exwy to Ramona Blvd	71.8	75	237	750	2,372
State St	Ramona Blvd to Cottonwood Ave	71.3	67	211	669	2,114
State St	Cottonwood Ave to 7th St	65.8	19	60	189	597
State St	7th St to Esplanade Ave	66.6	23	72	228	721
State St	South of Esplanade Ave	71.2	66	210	664	2,100
Warren Road	Ramona Exwy to Esplanade Ave	73.7	117	369	1,167	3,689

Notes:

1. Exterior noise levels calculated at 5-feet above ground.
2. Noise levels calculated from centerline of subject roadway.
3. Contour Distances do not take into account potential noise reduction from existing barriers such as buildings, walls or berms as a worst-case scenario for planning screening purposes. Overall levels are likely lower at sensitive receptors.

Exhibit H

Existing Roadway Noise Level Contours (CNEL)



6.3 Airport/Aircraft Noise

There are no airports located within the Study Area and the Study Area is not located within any airport noise contours. The closest airport to the Study Area is the Hemet-Ryan Airport located approximately 2.5 miles south of the Study Area. The noise contours associated with this small airport do not encroach into the Study Area.

6.4 Vibration Sources in the Study Area

The main sources of vibration in the project area are related to vehicles and construction. Typical roadway traffic, including heavy trucks, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents. These types of issues typically can be resolved by smoothing the roadway surface (Caltrans 2020).

Construction activities that produce vibration that can be felt by adjacent land uses include the use of vibratory equipment, large bulldozers, and pile drivers. The primary source of vibration during construction is usually from a bulldozer. A large bulldozer has a peak particle velocity of 0.089 inches per second at 25 feet.

7.0 Future Noise Environment, Impacts, and Mitigation

This assessment analyzes future noise impacts to and from the proposed project and compares the results to the City of San Jacinto General Plan Policies and Noise Standards. The analysis details the estimated noise levels associated with traffic from adjacent roadways and on-site stationary noise sources. Each future noise source related to the project was evaluated in light of applicable City of San Jacinto General Plan policies and ordinances and programmatic mitigation measures are provided as applicable.

7.1 Transportation Noise

The City of San Jacinto is proposing a new Land Use Plan and a new Roadway Classification Map in anticipation of the expected growth in the City (see Exhibits D and E). Table 17 presents Existing Roadway Conditions (on ground), 2006 General Plan Circulation Element Classifications, and 2040 General Plan Circulation Element Classifications for the studied road segments.

Table 17: Existing and Planned Roadway Designations

Roadway	Segment Limits	Existing Roadway[1]	2006 General Plan Roadway Classification[2]	2040 General Plan Roadway Classification[3]
Cottonwood Ave	Cawston Ave to Sanderson Ave	Collector, 2D	Arterial, 4D	Arterial, 4U
Cottonwood Ave	Warren Road to Cawston Ave	Collector, 2D	Arterial, 4D	Arterial, 4U
Cottonwood Ave	Sanderson Ave to Lyon Ave	Collector, 2U	Arterial, 4D	Arterial, 4U
Cottonwood Ave	Lyon Ave to State St	Collector, 2U	Arterial, 4D	Arterial, 4U
Esplanade Ave	Warren Road to Cawston Ave	Collector, 2U	Major, 4D	Arterial, 4D
Esplanade Ave	Cawston Ave to Sanderson Ave	Collector, 2U	Major,4D	Arterial, 4D
Esplanade Ave	Sanderson Ave to Lyon Ave	Collector, 2U	Major, 4D	Arterial, 4D
Ramona Exwy	West of Warren Road	Collector, 2U	Freeway	LAH[4], 6D
Ramona Exwy	Warren Road to Sanderson Ave	Arterial, 4D	Freeway	LAH, 6D
Ramona Exwy	Sanderson Ave to Lyon Ave	LACH, 6D	LACH[5], 6-8D	LAH, 6D
Ramona Exwy	Lyon Ave to State St	Arterial, 6D	LACH, 6-8D	LAH, 6D
Ramona Exwy	State St to San Jacinto Ave	Arterial, 4D	LACH, 6-8D	Arterial, 6D
Ramona Exwy	San Jacinto Ave to Main St	Arterial, 4D	Urban Arterial, 6D	Arterial, 6D
Ramona Exwy	Main St to 7th St	Arterial, 4D	Urban Arterial, 6D	Arterial, 6D
Ramona Exwy	7th St to Esplanade Ave	Collector, 2D	Urban Arterial, 6D	Arterial, 6D
Ramona Exwy	Esplanade Ave to Hemet St	Collector, 2U	Urban Arterial, 6D	Arterial, 6D
San Jacinto Ave	Main St to 7th St	Collector, 2D	Major, 4D	Arterial, 4D
7th St	West of Sanderson Ave	Collector, 2U	Secondary, 4U	Major, 4D
7th St	Lyon Ave to State St	Collector, 2D	Secondary, 4U	Major, 4D
7th St	San Jacinto Ave to Hewitt St	Collector, 2D	Secondary, 4U	Major, 4D
7th St	Hewitt St to Ramona Exwy	Collector, 2U	Secondary, 4U	Major, 4D

Roadway	Segment Limits	Existing Roadway[1]	2006 General Plan Roadway Classification[2]	2040 General Plan Roadway Classification[3]
State St	College Entrance to Community Coll.	Arterial, 4D	Major, 4D	Arterial, 4D
State St	Comm College to Ramona Exwy	Arterial, 4D	Major, 4D	Arterial, 4D
Warren Road	Ramona Exwy to Esplanade Ave	Collector, 2U	Arterial, 4D	Arterial, 4D

Notes:
1) As observed in Google Earth Aerials. Accessed 10/15/2021.
2U = two lane undivided, 2D =two lane divided, 4D four lane divided, and 6D = six lane divided.
2) As shown in Figure C-2 Roadway System in the 2006 City of San Jacinto General Plan.
3) As shown in Figure M-2 provided to MD Acoustics October 2021 by Kittleson Associates.
4) LAH = Limited Access Highway.
5) LACH = Limited Access Conventional Highway.

The primary noise source in the Study Area will continue to be vehicle traffic. Future traffic noise level contours are presented in Exhibit I. Table 18 shows that future noise levels at a distance of 50 feet from the centerline of studied roadways will range between 70.7 and 84.2 dBA CNEL by the year 2040. The distances to the 55, 60, 65, and 70 dBA CNEL noise contours are also provided in Table 18.

Table 18: Future Traffic Noise Levels (dBA, CNEL)

Roadway	Segment Limits	CNEL, dBA @ 50ft	Distance to Noise Contour (feet)		
			70 dBA	65 dBA	60 dBA
Cottonwood Ave	Warren Road to Cawston Ave	72.8	96	303	959
Cottonwood Ave	Sanderson Ave to Lyon Ave	72.8	96	303	959
Cottonwood Ave	Lyon Ave to State St	72.8	96	303	959
Esplanade Ave	Warren Road to Cawston Ave	72.8	96	303	959
Esplanade Ave	Cawston Ave to Sanderson Ave	72.7	92	292	923
Esplanade Ave	Sanderson Ave to Lyon Ave	72.7	92	292	923
Esplanade Ave	Lyon Ave to State St	72.7	92	292	923
Esplanade Ave	State St to San Jacinto Ave	72.7	92	292	923
Esplanade Ave	San Jacinto Ave to Hewitt St	72.7	92	292	923
Esplanade Ave	Hewitt St to Ramona Exwy	72.7	92	292	923
Main St	Ramona Exwy to Soboba Road	72.7	92	292	923
Ramona Exwy	West of Warren Road	73.7	117	369	1,168
Ramona Exwy	Warren Road to Sanderson Ave	81.9	769	2,431	7,688
Ramona Exwy	Sanderson Ave to Lyon Ave	81.9	769	2,431	7,688
Ramona Exwy	Lyon Ave to State St	81.9	769	2,431	7,688
Ramona Exwy	State St to San Jacinto Ave	81.9	769	2,431	7,688
Ramona Exwy	San Jacinto Ave to Main St	83.2	1,041	3,291	10,407
Ramona Exwy	Main St to 7th St	83.2	1,041	3,291	10,407
Ramona Exwy	7th St to Esplanade Ave	83.2	1,041	3,291	10,407

Roadway	Segment Limits	CNEL, dBA	Distance to Noise Contour (feet)		
Ramona Exwy	Esplanade Ave to Hemet St	83.2	1,041	3,291	10,407
San Jacinto Ave	Main St to 7th St	76.9	243	768	2,429
San Jacinto Ave	7th St to Esplanade Ave	76.0	198	626	1,981
San Jacinto Ave	South of Esplanade Ave	76.0	198	626	1,981
Sanderson Ave	Ramona Exwy to Ramona Blvd	76.0	198	626	1,981
Sanderson Ave	Ramona Blvd to Cottonwood Ave	77.2	262	827	2,616
Sanderson Ave	Cottonwood Ave to 7th St	77.2	262	827	2,616
Sanderson Ave	7th St to Esplanade Ave	77.2	262	827	2,616
7th St	West of Sanderson Ave	77.2	262	827	2,616
7th St	Sanderson Ave to Lyon Ave	68.1	33	103	326
7th St	Lyon Ave to State St	68.1	33	103	326
7th St	State St to San Jacinto Ave	68.1	33	103	326
7th St	San Jacinto Ave to Hewitt St	68.1	33	103	326
7th St	Hewitt St to Ramona Exwy	68.1	33	103	326
State St	College Entrance to Community Coll.	68.1	33	103	326
State St	Comm College to Ramona Exwy	76.1	206	651	2,059
State St	Ramona Exwy to Ramona Blvd	76.1	206	651	2,059
State St	Ramona Blvd to Cottonwood Ave	77.7	291	921	2,912
State St	Cottonwood Ave to 7th St	77.7	291	921	2,912
State St	7th St to Esplanade Ave	77.7	291	921	2,912
State St	South of Esplanade Ave	77.7	291	921	2,912
Warren Road	Ramona Exwy to Esplanade Ave	76.0	200	632	1,997
Warren Road	Ramona Exwy to Esplanade Ave	71.0	62	197	623

Notes:

1. Exterior noise levels calculated at 5-feet above ground.

2. Noise levels calculated from centerline of subject roadway.

3. Contour Distances do not take into account potential noise reduction from existing barriers such as buildings, walls or berms as a worst-case scenario for planning screening purposes. Overall levels are likely lower at sensitive receptors.

As shown in Table 19 and Exhibit I, by the year 2040, existing land uses adjacent to the studied roadways will be exposed to noise levels that exceed the City's exterior standards presented in Table 7.

Compared to existing traffic noise levels, future (2040) traffic volumes are expected to be up to 11.9 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in substantial increases in ambient noise along most of the studied road segments (see Table 19). The exceptions are Ramona Expressway, west of Warren Avenue; Sanderson Avenue and Warren Road between Ramona Expressway and Esplanade Avenue; and 7th Street from its western terminus to Lyon Avenue, where no increases in ambient noise levels are expected due to anticipated re-routing of vehicle trips. Implementation of the proposed 2040 General Plan Land Use Plan and Circulation Map will result in substantial permanent increases in existing noise levels at existing and future sensitive receptors.

Table 19: Change in Noise Along Roadways Due to San Jacinto General Plan Update (dBA, CNEL)

Roadway	Segment	Most Affected Existing Sensitive Land Uses[1,5]	CNEL at 50 Feet dBA CNEL[3]		Change in Noise Level	Significance Threshold[2,4]	Potential Significant Impact
			Existing	Future 2040			
Cottonwood Ave	Warren Rd to Cawston Ave	SFR	69.5	72.8	3.3	3	Yes
Cottonwood Ave	Sanderson Ave to Lyon Ave	SCHOOL	69.5	72.8	3.3	5	No
Cottonwood Ave	Lyon Ave to State St	SFR	69.5	72.8	3.3	3	Yes
Esplanade Ave	Warren Rd to Cawston Ave	SFR	63.9	72.8	8.9	3	Yes
Esplanade Ave	Cawston Ave to Sanderson Ave	SFR	64.6	72.7	8.1	3	Yes
Esplanade Ave	Sanderson Ave to Lyon Ave	SFR	66.1	72.7	6.6	3	Yes
Esplanade Ave	Lyon Ave to State St	SFR	69.6	72.7	3.1	3	Yes
Esplanade Ave	State St to San Jacinto Ave	SFR	71	72.7	1.7	1.5	Yes
Esplanade Ave	San Jacinto Ave to Hewitt St	SFR	70.1	72.7	2.6	1.5	Yes
Esplanade Ave	Hewitt St to Ramona Exwy	SFR	68.1	72.7	4.6	3	Yes
Main St	Ramona Exwy to Soboba Rd	SFR	67.1	72.7	5.6	3	Yes
Ramona Exwy	West of Warren Rd	SFR	75.5	73.7	0.0	1.5	No
Ramona Exwy	Warren Rd to Sanderson Ave	SFR	78.4	81.9	3.5	1.5	Yes
Ramona Exwy	Sanderson Ave to Lyon Ave	SFR	80.2	81.9	1.7	1.5	Yes
Ramona Exwy	Lyon Ave to State St	SFR	78	81.9	3.9	1.5	Yes
Ramona Exwy	State St to San Jacinto Ave	SFR	75.8	81.9	6.1	1.5	Yes
Ramona Exwy	San Jacinto Ave to Main St	SFR	75.6	83.2	7.6	1.5	Yes
Ramona Exwy	Main St to 7th St	OFFICE	73.5	83.2	9.7	3	Yes
Ramona Exwy	7th St to Esplanade Ave	SFR	73.5	83.2	9.7	1.5	Yes
Ramona Exwy	Esplanade Ave to Hemet St	SFR	75.1	83.2	8.1	1.5	Yes
San Jacinto Ave	Main St to 7th St	SFR	67.4	76.9	9.5	3	Yes
San Jacinto Ave	7th St to Esplanade Ave	CHURCH	69.7	76.0	6.3	3	Yes
San Jacinto Ave	South of Esplanade Ave	NONE	70.3	76.0	5.7	n/a	No
Sanderson Ave	Ramona Exwy to Ramona Blvd	NONE	77.4	76.0	0.0	n/a	No

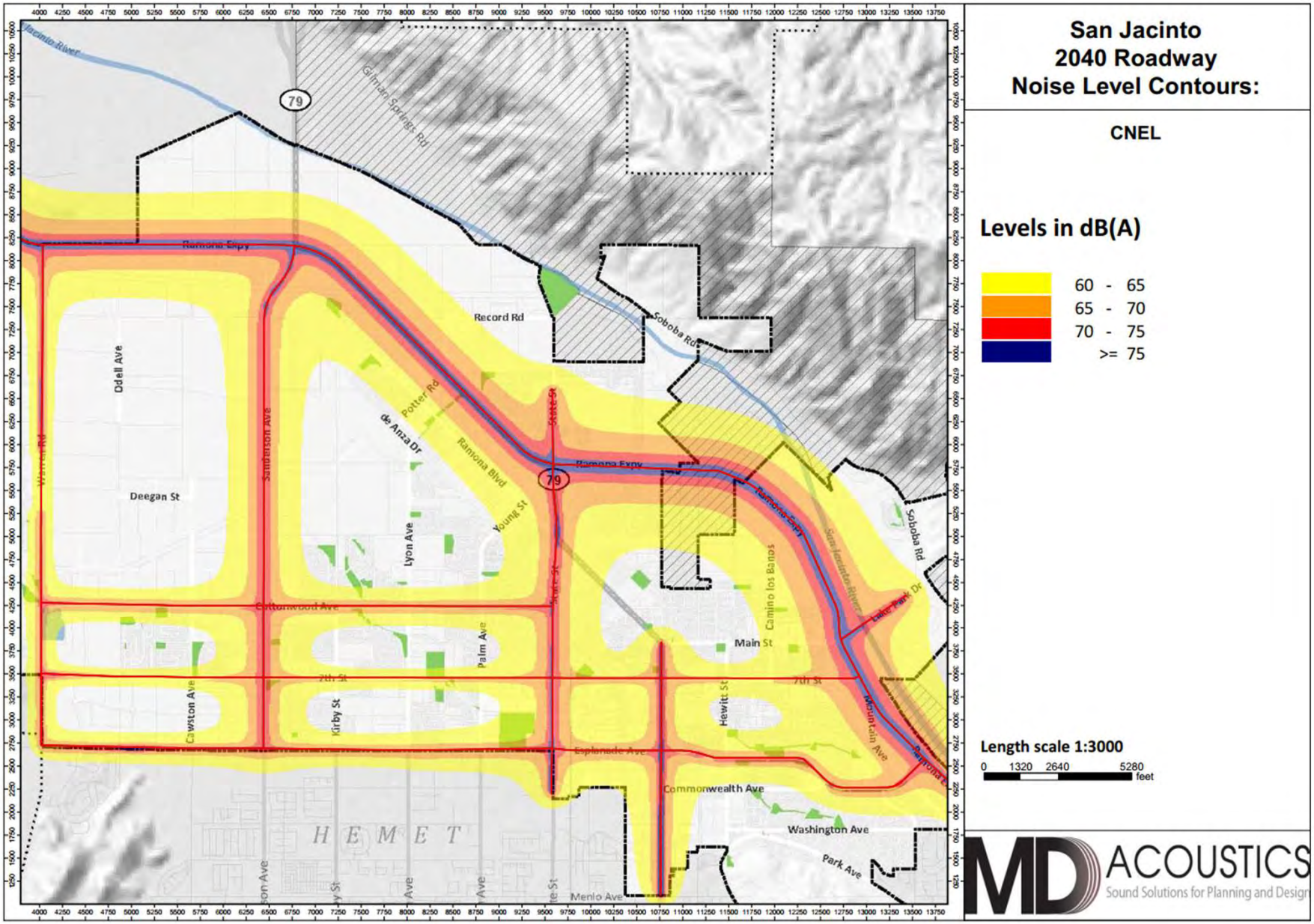
Roadway	Segment	Most Affected Existing Sensitive Land	CNEL at 50 Feet dBA CNEL[3]		Change in Noise	Significance Threshold[2,4]	Potential Significant Impact
Sanderson Ave	Ramona Blvd to Cottonwood Ave	SFR	77.4	77.2	0.0	1.5	No
Sanderson Ave	Cottonwood Ave to 7th St	SFR	78.2	77.2	0.0	1.5	No
Sanderson Ave	7th St to Esplanade Ave	SFR	71.9	77.2	5.3	1.5	Yes
7th St	West of Sanderson Ave	SFR	68.2	68.1	0.0	3	No
7th St	Sanderson Ave to Lyon Ave	SFR	68.2	68.1	0.0	3	No
7th St	Lyon Ave to State St	SFR	68.3	68.1	0.0	3	No
7th St	State St to San Jacinto Ave	SFR	65.2	68.1	2.9	3	No
7th St	San Jacinto Ave to Hewitt St	SFR	63.4	68.1	4.7	3	Yes
7th St	Hewitt St to Ramona Exwy	SFR	62.1	68.1	6.0	3	Yes
State St	College Entrance to Community Coll.	SCHOOL	69.4	76.1	6.7	3	Yes
State St	Comm. College to Ramona Exwy	NONE	71.8	77.7	5.9	n/a	No
State St	Ramona Exwy to Ramona Blvd	NONE	71.8	77.7	5.9	n/a	No
State St	Ramona Blvd to Cottonwood Ave	CHURCH	71.3	77.7	6.4	1.5	Yes
State St	Cottonwood Ave to 7th St	SFR	65.8	77.7	11.9	3	Yes
State St	7th St to Esplanade Ave	SFR	66.6	77.7	11.1	3	Yes
State St	South of Esplanade Ave	NONE	71.2	76.0	4.8	n/a	No
Warren Rd	Ramona Exwy to Esplanade Ave	SFR	73.7	71.0	0.0	1.5	No

Notes:

1. This table includes land uses for which the City has identified criteria (Table 7, Land Use Compatibility for Community Noise Exposure).
2. See Table 7, Land Use Compatibility for Community Noise Exposure.
3. Existing and Future traffic volumes compiled from the traffic study prepared for the project (Kittelson & Associates, Inc. 2021).
4. Per Proposed General Plan Policy 6a, a substantial increase will occur if ambient noise levels have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:
   - Existing noise levels are within or below the "normally acceptable" noise criteria at the affected land use (see Table 8) and the project creates a readily perceptible 5 dBA CNEL or greater project-related noise level increase; or
   - Existing noise levels fall within the "conditionally acceptable" noise criteria and the project creates a barely perceptible 3 dBA CNEL or greater project-related noise level increase; or
   - Existing noise levels exceed the "conditionally acceptable" noise criteria, and the project creates a community noise level impact of greater than 1.5 dBA CNEL.
5. SFR = Single Family Residential, MFR = Multi-Family Residential, MHP = Mobile Home Park.

Exhibit I

2040 Noise Level Contours (CNEL)



Implementation of the proposed 2040 General Plan Land Use Plan and Circulation Element will result in significant impacts related to exceedances of the land use compatibility criteria and substantial increases in ambient noise levels as presented in Table 19. Table 19 does not include sensitive uses that are further than 50 ft from the centerline and does not consider noise reduction factors such as property line walls. Where existing land uses will be impacted, the impact would be significant and unavoidable as setback distances of existing sensitive receptors are already established. Where existing land uses would be impacted, the impact would be significant and unmitigable. In order to reduce these impacts, the use of sound walls or quiet pavements could be employed. Construction of new sound walls could be a feasible mitigation measure. However, many impacted residential uses along the roadway segments listed above are accessed directly via driveways off the main roadway or may already have a sound wall. A new sound wall would require many driveway openings, resulting in partial noise barriers. These openings in the sound wall would substantially reduce the noise barrier performance.

Additionally, raising the heights of sound walls or constructing new noise barriers would result in encroachment on private property. Such encroachment would require private property owners to allow permission to enter their property. Raising sound wall heights would likely require enlarging footings, thereby requiring the demolition of existing sound walls. Therefore, the use of new sound walls or modifying sound walls is not considered to be practical.

Quiet pavements have been used to mitigate traffic noise and are typically assumed to provide a 3 to 5 dBA reduction. Quiet pavement placed along sensitive receptor areas on the impacted roadway segments could reduce traffic noise levels. Many of the noise impacts outlined in the previous tables could potentially be mitigated through the use of quiet pavement. However, not all impacted roadway segments could be mitigated by quiet pavements due to the magnitude of the traffic noise increases. Additionally, widespread repaving of city streets with quiet pavements would be expensive and impractical. There are no feasible noise reduction measures beyond those identified within the policies and actions listed above and those listed below that would reduce impacts.

General Plan Policies PS-6.1 through PS-6.10 and Actions PS-6a through PS-6i, identified below, are intended to minimize exposure to excessive noise, including traffic-related noise. Specifically, Policies PS-6.1 and PS-6.2 support noise-compatible land uses in the vicinity of traffic noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables PS-1 and PS-2. The proposed General Plan standards required under Policy PS-6.1 for exposure to traffic noise meet or exceed the noise level standards shown in General Plan Tables PS-1 and PS-2. Policy PS-6.2 and Actions PS-6b would ensure that new development mitigates potential noise impacts by incorporating the noise control treatments necessary to achieve acceptable noise levels. Policy PS-6.3 sets criteria for evaluating future increases in traffic noise levels. Action PS-6a would ensure that the San Jacinto Municipal Code, including the updated noise ordinance, is consistent with the noise standards established in the General Plan. Implementing the proposed policies and actions of the General Plan would reduce noise and land use compatibility impacts from vehicular traffic noise sources and ensure that new development is designed to include noise-attenuating features. However, as shown in Table 19, the traffic noise increases associated with

the proposed General Plan exceed the applicable noise exposure criteria. Therefore, the proposed General Plan would have a significant and unavoidable impact relative to traffic noise on existing noise-sensitive uses in the City.

Where proposed land uses are expected to be exposed to noise levels that exceed the "normally acceptable" land use compatibility criteria presented in Table 7, impacts can be mitigated to "less than significant" with the implementation the of proposed General Plan Noise Element Goal PS-6.1, Policies PS-6.1 through PS-6.5 and Actions PS-6a through 6c as listed in Section 4.3.1.

7.2 Stationary Noise

Implementation of the General Plan could result in the future development of land uses that generate noise levels in excess of applicable City noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, and recreational uses. While the General Plan does not explicitly propose any new noise-generating uses, the Land Use Map includes industrial land use designations, which may result in new noise sources. Specific development projects and the details of future noise-generating land uses that may be located in the City in the future are not known at this time. Additionally, noise from existing stationary sources, as identified in the Existing Settings Section, would continue to impact noise-sensitive land uses in the vicinity of the noise sources. New projects which may include stationary noise sources such as automotive and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields may create noise levels in excess of the City's standards.

While no specific projects are proposed under the General Plan Update, changes in land use may allow for more intensive noise-generating uses in closer proximity to noise-sensitive uses. Where this occurs, detailed noise studies would be required to ensure that noise control measures are implemented into the project design. Such measures could include the redesign of industrial noise sources away from sensitive uses, construction of sound walls or berms between noise generating uses and sensitive uses, using buildings to create additional buffer distance and screening, or other site design measures to ensure that non-transportation (stationary) noise sources do not cause exterior noise levels to exceed allowable standards at sensitive receptors.

The General Plan includes policies and actions that are intended to reduce noise associated with stationary sources. Specifically, Policies PS-6.1 through PS-6.3 and PS-6.6 through PS-6.10 and Actions PS-6b, PS-6c and PS-6d would reduce noise associated with stationary sources. Policy PS-6.2 and Action PS-6b require new development to mitigate excessive noise to the standards indicated in Tables PS-1, PS-2, PS-3, and PS-4 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials. Implementation of the proposed policies and actions of the General Plan Update would reduce noise impacts from stationary noise sources to a less than significant level.

7.3 Construction Noise

The degree of construction noise may vary for different projects within the scope of the General Plan and also vary depending on the construction activities. Noise levels associated with the construction will vary with the different phases of construction.

The Environmental Protection Agency (EPA) has compiled data regarding the noise-generated characteristics of typical construction activities. The data is presented in Table 20. These noise levels would diminish rapidly with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 86 dBA measured 50 feet from the noise source would reduce to 80 dBA at 100 feet. At 200 feet from the noise source, the noise level would reduce to 74 dBA. At 400 feet, the noise source would reduce by another 6 dBA to 68 dBA. Contractors are required to comply with the City of San Jacinto's Noise Ordinance during construction described in Section 8.40.090.

Table 20: Typical Construction Noise Levels

Equipment Powered by Internal Combustion Engines	
Type	**Noise Levels (dBA) at 50 Feet**
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Impact Equipment	
Saws	71 - 82
Vibrators	68 - 82
Notes: Source: Reference Noise Levels from the Environmental Protection Agency (EPA)	

7.3.1 Construction Related Traffic

The projects within the scope of the General Plan would result in short-term noise impacts associated with construction activities. Two types of short-term noise impacts could occur during construction activities. First, construction crew commute and the transport of construction equipment and

materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. Truck traffic associated with project construction should be limited to within the permitted construction hours, as listed in the City's Municipal Code. Although there would be a relatively high single-event noise exposure potential at a maximum of 87 dBA Lmax at 50 ft from passing trucks, causing possible short-term intermittent annoyances, the effect on ambient noise levels would be less than 1 dBA when averaged over one hour or 24 hours. In other words, the changes in noise levels over 1 hour or 24 hours attributable to passing trucks would not be perceptible to the normal human ear. Therefore, short-term construction-related impacts associated with worker commute and equipment transport on local streets leading to the project site would result in a less than significant impact on noise-sensitive receptors along the access routes. No mitigation is required.

7.3.2 On-Site Construction Activities

Site preparation phase, which includes grading and paving, tends to generate the highest noise levels since the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Site-specific construction activities associated with future development is expected to require the use of scrapers, bulldozers, motor graders, and water and pickup trucks. The maximum noise level generated by each scraper is assumed to be approximately 87 dBA Lmax at 50 ft from the scraper in operation. Each bulldozer would also generate approximately 85 dBA Lmax at 50 ft. The maximum noise level generated by the sound sources with equal strength increases the noise level by 3 dBA. Noise reduction potential will be project and site-specific. Implementation of Noise Element Action PS-6e can result in less than significant construction noise impacts.

7.4 Groundborne Vibration

The main sources of vibration in the project area are related to vehicles and construction. Typical roadway traffic, including heavy trucks, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents. These types of issues typically can be resolved by smoothing the roadway surface (Caltrans 2020).

Construction activities that produce vibration that can be felt by adjacent land uses include the use of vibratory equipment, large bulldozers, and pile drivers. The primary sources of vibration during construction are usually vibratory rollers and large bulldozers. As shown in Table 21, a vibratory roller has a peak particle velocity (inches/second) of 0.21 and a large bulldozer has a peak particle velocity of 0.089 (inches per second) at 25 feet. The use of pile driving equipment can generate a peak particle velocity of 1.5 (inches per second) depending on the size and model.

Table 21: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (VdB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

The California Department of Transportation has published one of the seminal works for the analysis of ground-borne noise and vibration relating to transportation- and construction-induced vibrations and, although the project is not subject to these regulations, it serves as a useful tool to evaluate vibration impacts (California Department of Transportation, 2013). Table 22 provides maximum PPV levels (inches/second) to be used to determine if groundborne vibration may result in damage, depending on the type of structure. When evaluated in light of the estimated groundborne vibration levels presented in Table 19, it can be determined that construction activities in the project area have the potential to result in significant impacts related to groundborne vibration associated with construction activities. These impacts can be avoided with implementation of General Plan Policy PS-6h.

<Table 22, next page>

Table 22: Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inches/second)	
	Transient Sources	Continuous/Frequent Intermittent Source
Extremely fragile historic buildings, ruins, ancient monuments	0.1	0.1
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.3
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation and Construction Vibration Guidance Manual. April 2020.

Note: transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

8.0 CEQA Analysis

The California Environmental Quality Act Guidelines (Appendix G) establishes thresholds for noise impact analysis as presented below:

(a) Would the project result in the 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 Code, or applicable standards of other agencies?

Transportation Noise Impacts

The significance criteria for Transportation Noise Standards are based on published guidance from FICON, which have been incorporated into the proposed General Plan under Policy PS-6.3.
Transportation noise may result in substantial increases in ambient noise levels if:

- Existing noise levels are within or below the "normally acceptable" noise criteria at the affected land use (see Table 7) and the project creates a readily perceptible 5 dBA CNEL or greater project-related noise level increase; or
- Existing noise levels fall within the "conditionally acceptable" noise criteria and the project creates a barely perceptible 3 dBA CNEL or greater project-related noise level increase; or
- Existing noise levels exceed the "conditionally acceptable" noise criteria, and the project creates a community noise level impact of greater than 1.5 dBA CNEL.

Compared to existing traffic noise levels, future (2040) traffic volumes are expected to be up to 11.9 dBA CNEL louder than existing ambient noise levels at existing land uses and will result in substantial increases in ambient noise along most of the studied road segments (see Table 19). The exceptions are Ramona Expressway, west of Warren Avenue; Sanderson Avenue and Warren Road between Ramona Expressway and Esplanade Avenue; and 7th Street from its western terminus to Lyon Avenue, where no increases in ambient noise levels are expected due to anticipated re-routing of vehicle trips. Implementation of the proposed 2040 General Plan Land Use Plan and Circulation Map will result in substantial permanent increases in existing noise levels at sensitive receptors.

Implementation of the proposed 2040 General Plan Land Use Plan and Circulation Element will result in significant impacts related to exceedances of the land use compatibility criteria and substantial increases in ambient noise levels as presented in Table 19. Where existing land uses will be impacted, the impact would be significant and unmitigable. Where proposed land uses are expected to be exposed to noise levels that exceed the "normally acceptable" land use compatibility criteria presented in Table 7, impacts can be mitigated to "less than significant" with implementation of proposed General Plan Noise Element Goal PS-6.1, Policies PS-6.1 through PS-6.6 and Actions PS-6a through 6c as listed in Section 4.3.1.

Stationary Noise Sources

- Stationary noise impacts would be considered significant if they result in exceedances of the criteria presented in Tables 10 and 11 or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater..

Implementation of the proposed General Plan Land Use Plan may result in stationary noise impacts related to HVAC Systems, Cooling Towers/Evaporative Condensers, Pump Stations, Lift Stations, Emergency Generators, Boilers, Steam Valves, Steam Turbines, Generator, Fans, Air Compressors, Heavy Equipment, Conveyor Systems, Transformers, Pile Drivers, Grinders, Drill Rigs, Gas or Diesel Motors, Welders, Cutting Equipment, Outdoor Speakers, Blowers and Pneumatic Equipment. This list is not intended to be exclusive. Implementation of good land use planning and policies and actions can minimize noise impacts related to these sources by avoiding the placement of noise generating equipment near noise-sensitive land uses and where unavoidable, include design measures to the degree practicable to avoid violating the noise criteria presented in Tables 10 and 11. Stationary noise impacts can be mitigated to "less than significant" with implementation of proposed General Plan Noise Element Goal PS-6.1, Policies PS-6.6 through PS-6.8 and Actions PS-6a through 6d as listed in Section 4.3.1.

Construction Noise and Vibration

Construction noise will be significant if:

- Construction activities occur outside of the permitted construction hours specified in Chapter 8.40 of the San Jacinto Municipal Code and also exceed the exterior or interior stationary noise criteria presented in Tables 10 and 11.
- Construction activities are not consistent with the proposed 2040 General Plan Noise Goals, Policies and Actions.

Implementation of the proposed General Plan Land Use and Circulation Elements would result in short-term noise impacts associated with construction activities. Two types of short-term noise impacts could occur during construction activities, on-site and off-site.

Construction crew commute and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. Truck traffic associated with project construction should be limited to within the permitted construction hours, as listed in the City's Municipal Code. Although there would be a relatively high single-event noise exposure potential at a maximum of 87 dBA Lmax at 50 ft from passing trucks, causing possible short-term intermittent annoyances, the effect on ambient noise levels would be less than 1 dBA when averaged over one hour or 24 hours. In other words, the changes in noise levels over 1 hour or 24 hours attributable to passing trucks would not be perceptible to the normal human ear. Therefore, short-term construction-related impacts associated with worker commute and equipment transport on local streets leading to the project site would result in a less than significant impact on noise-sensitive receptors along the access routes. No mitigation is required.

The site preparation phase of on-site construction activities, which includes grading and paving, tends to generate the highest noise levels since the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Site-specific construction activities associated with future development is expected to require the use of scrapers, bulldozers, motor graders, and water and pickup trucks. The maximum noise level generated by each scraper is assumed to be approximately 87 dBA Lmax at 50 ft from the scraper in operation. Each bulldozer would also generate approximately 85 dBA Lmax at 50 ft. The maximum noise level generated by the sound sources with equal strength increases the noise level by 3 dBA. Noise reduction potential will be project and site-specific. Implementation of Noise Element Action PS-6e can result in less than significant construction noise impacts.

b) Generate excessive ground-borne vibration or ground-borne noise levels?

Construction vibration will be significant if vibration exceeds levels that would result in structural damage to existing buildings. Implementation of the proposed General Plan Land Use and Circulation Elements would result in short-term vibration impacts associated with construction activities. The Transportation and Construction Vibration Guidance Manual (Caltrans 2020) has recommended vibration thresholds for various types of receivers (see Table 22). This impact would be less than significant with the implementation of PS-6h which limits vibration levels to 0.08 in/sec PPV for historical buildings and 0.3 in/sec PPV for other buildings.

9.0 References

American National Standards Institute (ANSI)

Specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

California, State of, Building Standards Commission

2019 California Uniform Building Code (UBC), Title 24.
2019 Green Code Section 5.507.4.3 (2019)

California Department of Transportation (Caltrans)

2013 Technical Noise Supplement to the Traffic Noise Analysis Protocol.
2020 Transportation and Construction Vibration Guidance Manual. April.
2021 Caltrans Traffic Counts https://dot.ca.gov/programs/traffic-operations/census

California Office of Noise Control

2017 Guidelines for the Preparation and Content of Noise Elements of the General Plan. February.

Environmental Protection Agency (EPA)

1974 Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Prepared by the EPA, Office of Noise Abatement and Control.

Federal Interagency Committee on Noise

1992 Federal Agency Review of Selected Airport Noise Analysis Issues. August.

Federal Transit Administration

2006 Transit Noise and Vibration Impact Assessment. Typical Construction Equipment Vibration Emissions. FTAVA-90-1003-06.

Office of Planning and Research, State of California

2017 Office of Planning and Research, General Plan Guidelines.

San Jacinto, City of

2006 City of San Jacinto General Plan.
City of San Jacinto Code of Ordinance

Appendix A:
SoundPLAN Data

San Jacinto GP Noise
Emission calculation road - 001 - Existing: Outdoor GNM

Road	ADT Veh/24h	MSVges Day Veh/h	MSVges Evening Veh/h	MSVges Night Veh/h	Pavement type	
7th St_Hewitt to Ramona Expwy	9550	614.49	354.90	123.49	Average (of DGAC and PCC)	
7th St_Lyon to State	9650	620.92	358.62	124.78	Average (of DGAC and PCC)	
7th ST_San Jacinto to Hewitt	8500	546.93	315.88	109.91	Average (of DGAC and PCC)	
7th St_Sanderson to Lyon	6300	405.37	234.12	81.46	Average (of DGAC and PCC)	
7th St_State to San Jacinto	11200	720.66	416.22	144.83	Average (of DGAC and PCC)	
7th St_West to Sanderson	9650	620.92	358.62	124.78	Average (of DGAC and PCC)	
Cottonwood Ave_Cawston to State	6750	412.91	179.15	139.73	Average (of DGAC and PCC)	
Cottonwood Ave_Warren to Cawston	5300	324.21	140.67	109.71	Average (of DGAC and PCC)	
Esplanade Ave_Cawston to Sanderson	6800	440.16	269.00	79.01	Average (of DGAC and PCC)	
Esplanade Ave_Hewitt to Ramona Expwy	9550	618.16	377.79	110.97	Average (of DGAC and PCC)	
Esplanade Ave_Lyon to State	13350	864.13	528.12	155.12	Average (of DGAC and PCC)	
Esplanade Ave_San Jacinto to Hewitt	15150	980.64	599.32	176.04	Average (of DGAC and PCC)	
Esplanade Ave_Sanderson to Lyon	9550	618.16	377.79	110.97	Average (of DGAC and PCC)	
Esplanade Ave_State to San Jacinto	18400	1191.01	727.89	213.80	Average (of DGAC and PCC)	
Esplanade Ave_Warren to Cawston	5800	375.43	229.44	67.39	Average (of DGAC and PCC)	
Main - Ram E to Soboba	8650	556.58	321.46	111.85	Average (of DGAC and PCC)	
Ramona Expwy_Esplanade to Wash	16250	994.05	431.29	336.39	Average (of DGAC and PCC)	
Ramona Expwy_Lyon to State	25050	1417.89	856.74	607.24	Average (of DGAC and PCC)	
Ramona Expwy_Main/Lake Park to Esp	11000	672.90	291.95	227.71	Average (of DGAC and PCC)	
Ramona Expwy_San Jacinto to Main	10850	663.72	287.97	224.60	Average (of DGAC and PCC)	
Ramona Expwy_Sanderson to Lyon	27050	1531.09	925.15	655.72	Average (of DGAC and PCC)	
Ramona Expwy_State to San Jacinto	20150	1140.54	689.16	488.46	Average (of DGAC and PCC)	
Ramona Expwy_Warren to Sanderson	23750	1344.30	812.28	575.72	Average (of DGAC and PCC)	
Ramona Expwy_West of Warren	22200	1256.57	759.27	538.15	Average (of DGAC and PCC)	
San Jacinto Ave_7th to Esplanade	18600	1203.95	735.80	216.13	Average (of DGAC and PCC)	
San Jacinto Ave_Main/Ramona Blvd to 7th	12650	818.82	500.42	146.99	Average (of DGAC and PCC)	
San Jacinto Ave_South of Esplanade	21546	1394.64	852.34	250.36	Average (of DGAC and PCC)	
Sanderson Ave_7th to Esplanade	6700	409.86	177.83	138.70	Average (of DGAC and PCC)	
Sanderson Ave_Cottonwood to 7th	28500	1743.41	756.42	589.97	Average (of DGAC and PCC)	
Sanderson Ave_Ramona Expwy to Cott	23515	1438.47	624.11	486.78	Average (of DGAC and PCC)	
State Espl to Crow	19520	1263.50	772.20	226.82	Average (of DGAC and PCC)	

San Jacinto GP Noise
Emission calculation road - 001 - Existing: Outdoor GNM

Road	ADT Veh/24h	MSVges Day Veh/h	MSVges Evening Veh/h	MSVges Night Veh/h	Pavement type	
State St_7th to Esplanade	6700	433.68	265.05	77.85	Average (of DGAC and PCC)	
State St_Coll Dr to Ram Ex	16650	1077.73	658.66	193.47	Average (of DGAC and PCC)	
State St_Coll En to Call Dr	14950	967.69	591.41	173.72	Average (of DGAC and PCC)	
State St_Cottonwood to 7th	5550	359.24	219.55	64.49	Average (of DGAC and PCC)	
State St_Ramona Blvd to Cottonwood	19650	1271.92	777.34	228.33	Average (of DGAC and PCC)	
State St_Ramona Expwy to Ramona Blvd	22050	1427.27	872.28	256.22	Average (of DGAC and PCC)	
Warren Road_Ramona Ex to Espl	11778	720.49	312.60	243.81	Average (of DGAC and PCC)	

San Jacinto GP Noise
Emission calculation road - 003 - Future Kittleson: Outdoor GNM

Road	ADT	MSVges Day	MSVges Evening	MSVges Night	Constrained speed	Pavement type	
	Veh/24h	Veh/h	Veh/h	Veh/h	km/h		
7th St_Hewitt to Ramona Expwy	9667	625.73	382.42	112.33		Average (of DGAC and PCC)	
7th St_Lyon to State	9667	625.73	382.42	112.33		Average (of DGAC and PCC)	
7th ST_San Jacinto to Hewitt	9667	625.73	382.42	112.33		Average (of DGAC and PCC)	
7th St_Sanderson to Lyon	9667	625.73	382.42	112.33		Average (of DGAC and PCC)	
7th St_State to San Jacinto	9667	625.73	382.42	112.33		Average (of DGAC and PCC)	
7th St_West to Sanderson	9667	625.73	382.42	112.33		Average (of DGAC and PCC)	
Cottonwood Ave_Warren to State	12438	760.86	330.12	257.48		Average (of DGAC and PCC)	
Esplanade Ave_Warren to Old Mtn	14997	917.40	398.04	310.45		Average (of DGAC and PCC)	
Esplanade Ave_Warren to Old Mtn	14997	916.57	652.87	226.62		Average (of DGAC and PCC)	
Main - Ram E to Soboba	18986	1161.42	503.91	393.03		Average (of DGAC and PCC)	
Ramona Expwy_Esplande to Hemet St	10787	659.87	286.30	223.30		Average (of DGAC and PCC)	
Ramona Expwy_Sanderson to State	34141	2088.49	906.14	706.75		Average (of DGAC and PCC)	
Ramona Expwy_State to Esplande	46217	2827.21	1226.65	956.73		Average (of DGAC and PCC)	
Ramona Expwy_West of Sanderson	34141	1932.46	1167.67	827.61		Average (of DGAC and PCC)	
San Jacinto Ave_Main to Menlo	25700	1572.13	682.11	532.01		Average (of DGAC and PCC)	
Sanderson Ave_Ramona Expwy to Esplande	22568	1380.54	598.98	467.18		Average (of DGAC and PCC)	
State St_Coll Ent to Ram Expy	26714	1634.16	709.02	553.00		Average (of DGAC and PCC)	
State St_Esplande to Crow	25912	1585.10	687.73	536.40		Average (of DGAC and PCC)	
State St_Ram expy to Esplande	37777	2310.91	1002.64	782.02		Average (of DGAC and PCC)	
Warren Road_Ramona Ex to Espl	5372	328.62	142.58	111.20		Average (of DGAC and PCC)	

Appendix B:

Noise Measurement Data and Field Sheets

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10-Minute Continuous Noise Measurement Datasheet

Project: 04621801 San Jacinto GP Noise STMS
Site Address/Location: San Jacinto, CA
Date: 5/7/2019
Field Tech/Engineer: Mike Dickerson, INCE

Site Observations: Cloudy sky w/ slight rain, Ambient noise consisted of traffic along roads as lited for each measurement.

General Location:
Sound Meter: XL2 **SN:** 08562-E0
Settings: A-weighted, fast, 1-sec, 10-minute duration
Meteorological Con.: Cloudy sky w/ slight rain
Site ID: ST-1 thru ST-7

Table 1: Morning - Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
1	1:01 PM	1:11 PM	75.7	101.6	39.9	81.1	77.9	72.4	64.1	47.1
2	1:27 PM	1:37 PM	69.2	88.0	44.6	77.1	74.2	69.6	64.0	52.9
3	1:49 PM	1:59 PM	69.5	87.0	57.2	77.1	71.9	68.8	65.9	62.2
4	2:10 PM	2:20 PM	67.3	82.6	54.5	75.2	70.5	66.9	64.7	60.8
5	2:10 PM	2:20 PM	71.6	86.5	54.0	79.4	75.4	72.0	68.2	61.3
6	2:52 PM	3:02 PM	69.0	92.2	48.6	77.5	69.5	64.6	61.9	55.3
7	3:43 PM	3:53 PM	68.9	81.4	52.2	76.2	72.8	70.3	65.8	57.4

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10-Minute Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise STMS
Site Address/Location: San Jacinto, CA
Site ID: ST-1 thru ST-7

Figure 1: Monitoring Locations 1-7



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10-Minute Continuous Noise Measurement Datasheet - ST-1

Project:	04621801 San Jacinto GP Noise STMS	**Site Topo:**	64 Degrees	**Noise Source(s) w/ Distance:**	
Site Address/Location:	Warren Road & Byrd St		Cloudy, no wind	C/L of Warren Road is 25ft from meter	
Site ID:	ST-1	**Ground Type:**	Soft site, w/ street surface hard	C/L of Byrd St is 240ft from meter	

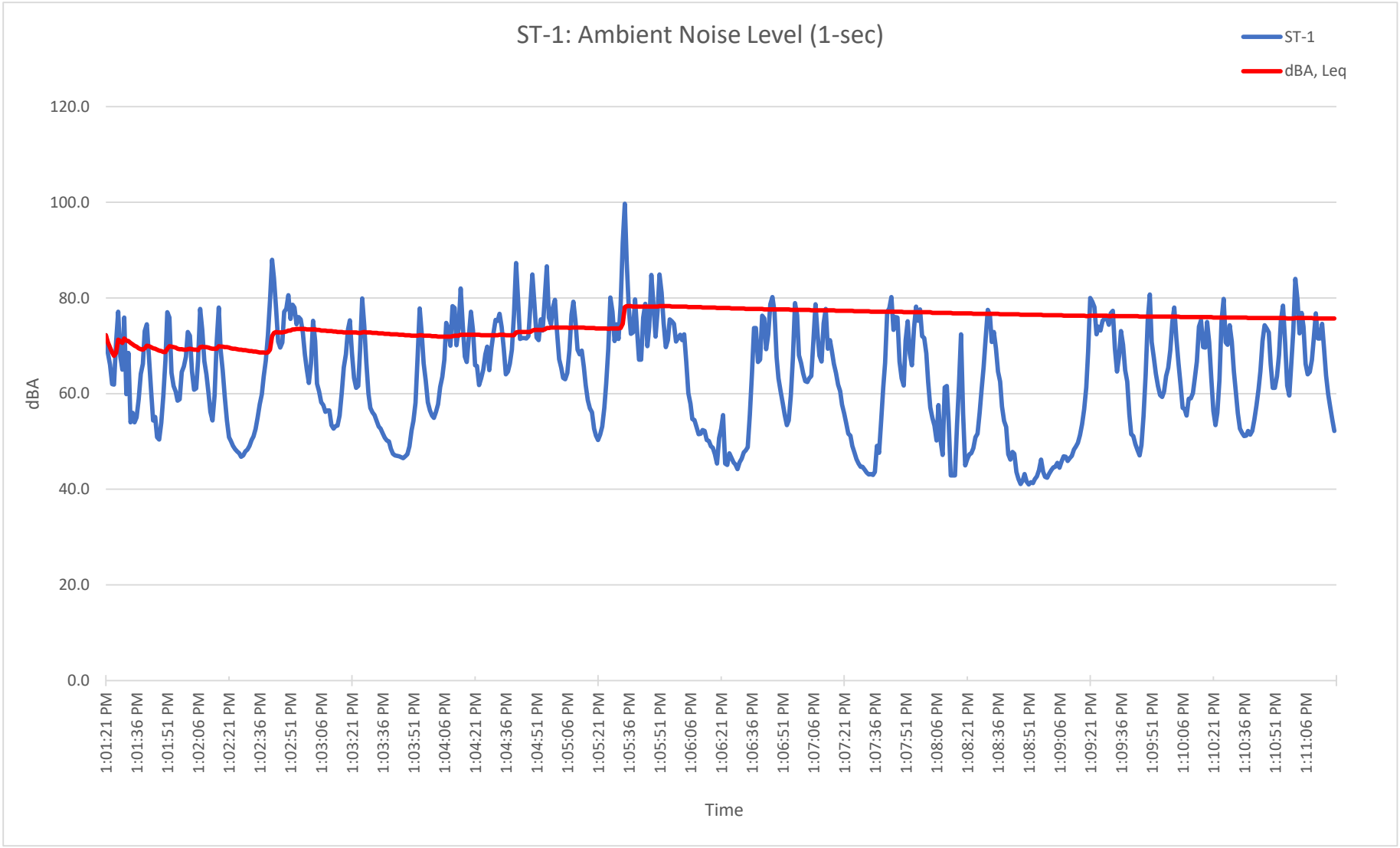

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Figure 2-1: ST-1 Site

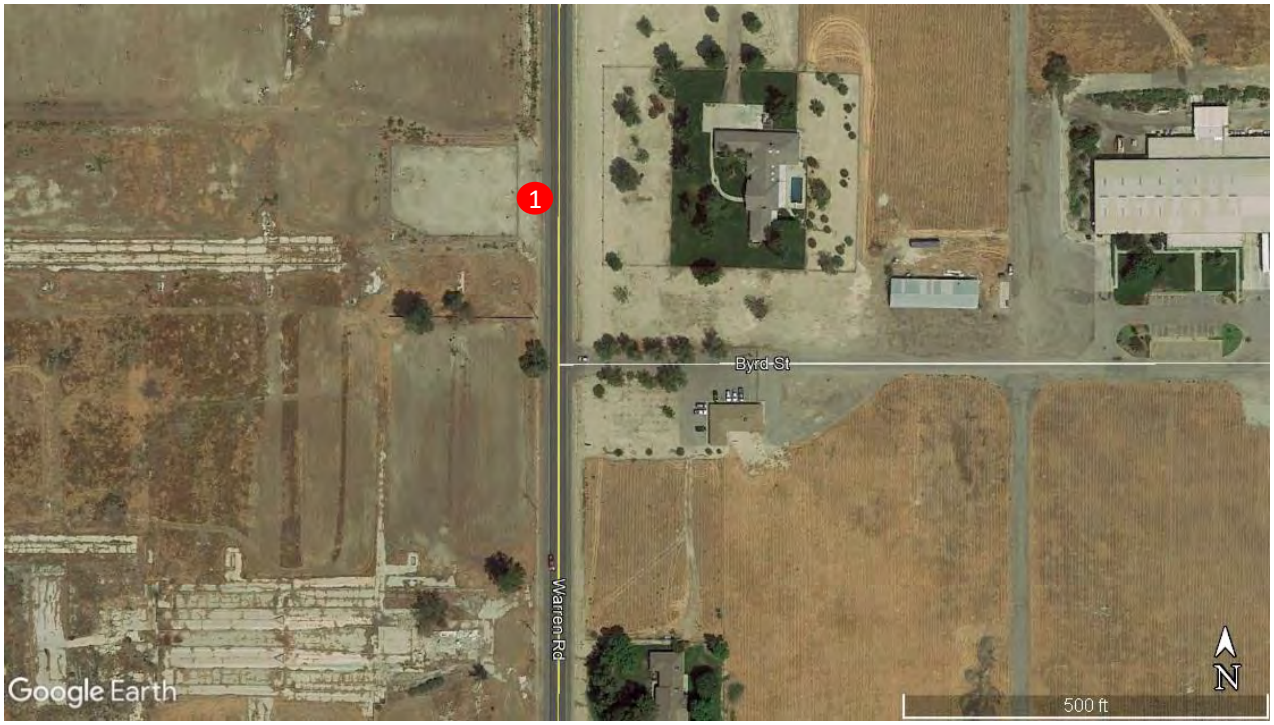

Figure 2-2: ST-1 Photo



Figure 2-3: ST-1 Photo



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10-Minute Continuous Noise Measurement Datasheet - ST-2

Project:	04621801 San Jacinto GP Noise STMS	**Site Topo:**	63 Degrees	**Noise Source(s) w/ Distance:**	
Site Address/Location:	Palm Ave & 7th St		Cloudy, slight wind	C/L of Palm Ave is 30ft from meter	
Site ID:	ST-2	**Ground Type:**	Soft site, w/ street surface hard	C/L of 7th St is 50ft from meter	

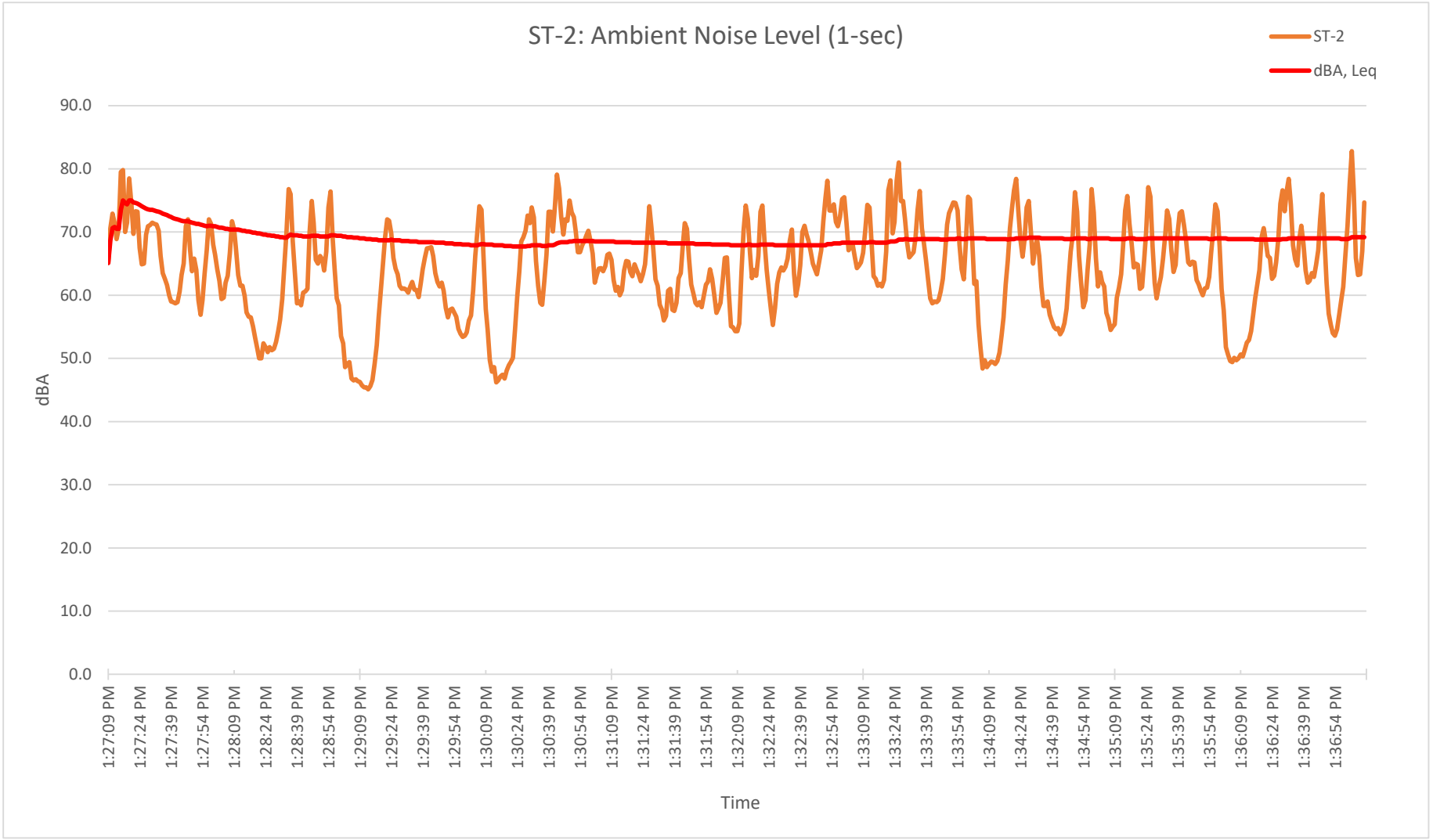

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Figure 3-1: ST-2 Site

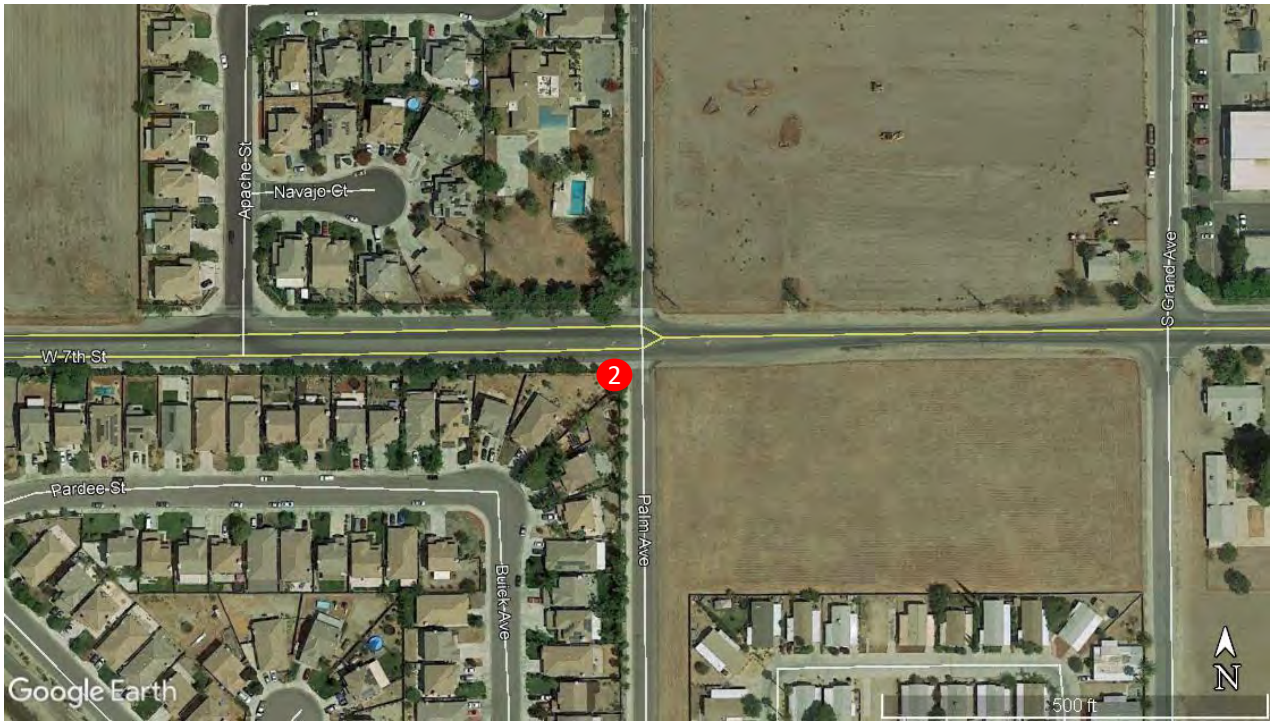

Figure 3-2: ST-2 Photo



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10-Minute Continuous Noise Measurement Datasheet - ST-3

Project: 04621801 San Jacinto GP Noise STMS
Site Address/Location: San Jacinto Ave & Esplanade Ave
Site ID: ST-3

Site Topo: 62 Degrees
Cloudy, slight wind
Ground Type: Hard site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of San Jacinto Ave is 52ft from meter
C/L of Esplanade Ave is 62ft from meter

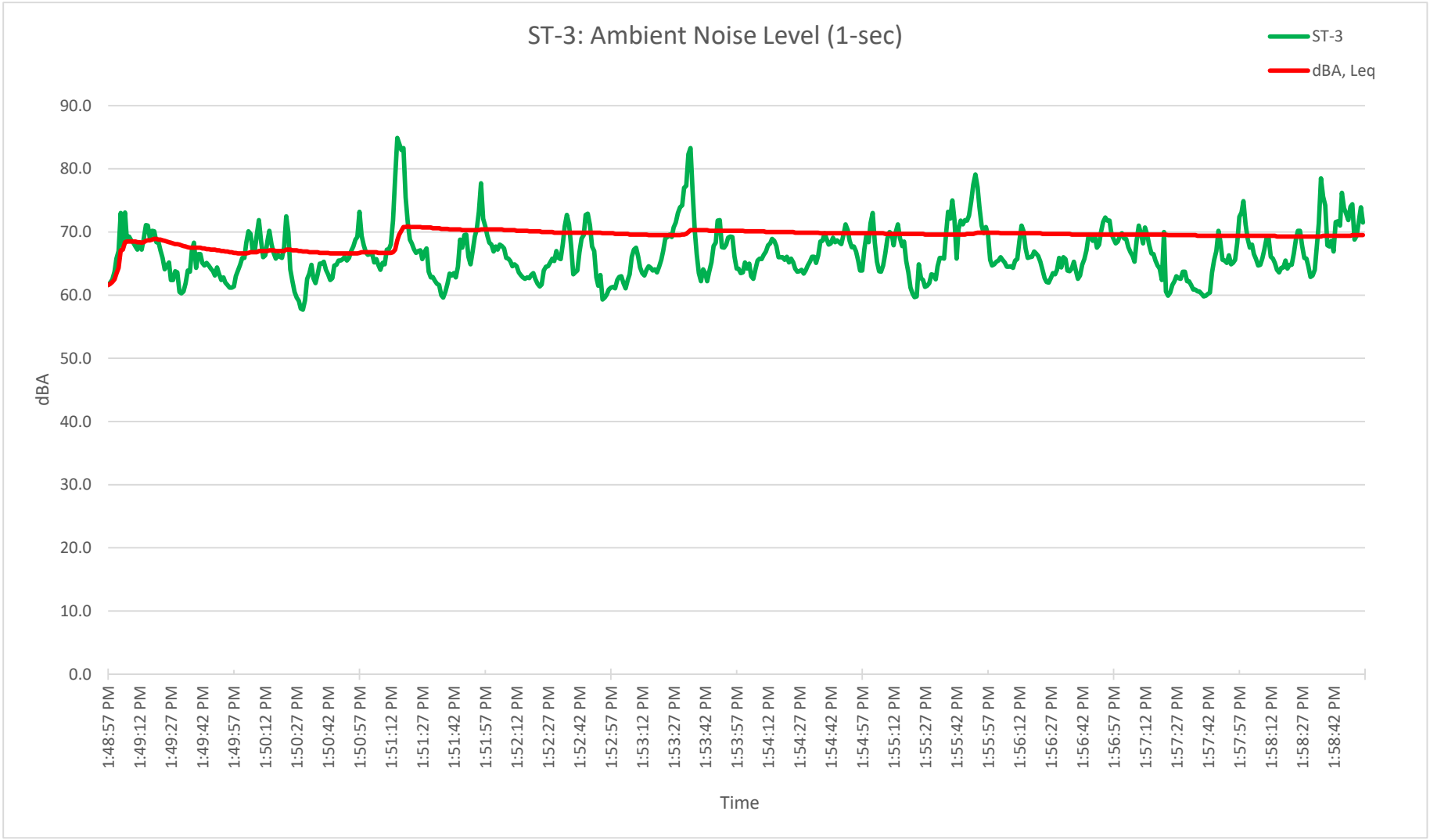

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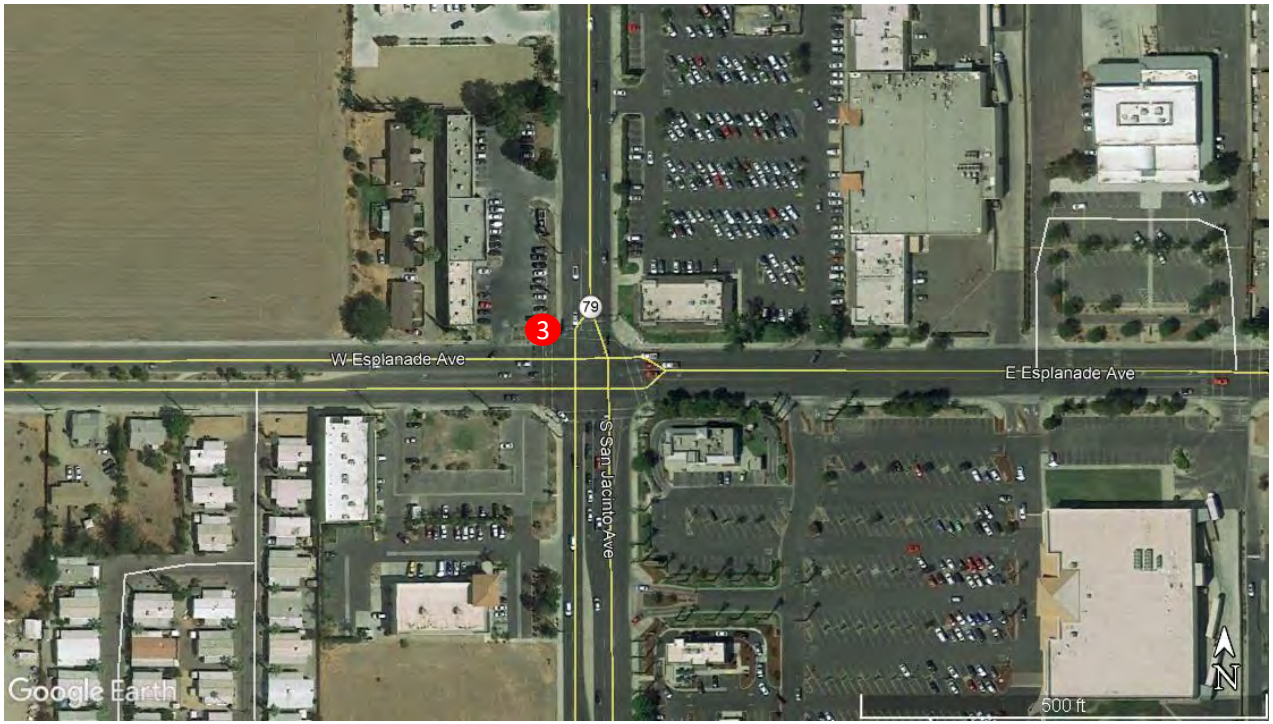
Figure 1: ST-3 Site



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10-Minute Continuous Noise Measurement Datasheet - ST-4

Project: 04621801 San Jacinto GP Noise STMS
Site Address/Location: Hewitt St & 7th St
Site ID: ST-4
Site Topo: 62 Degrees
Cloudy, slight wind
Ground Type: Soft site, w/ street surface hard
Noise Source(s) w/ Distance:
C/L of Hewitt St is 35ft from meter
C/L of 7th is 35ft from meter

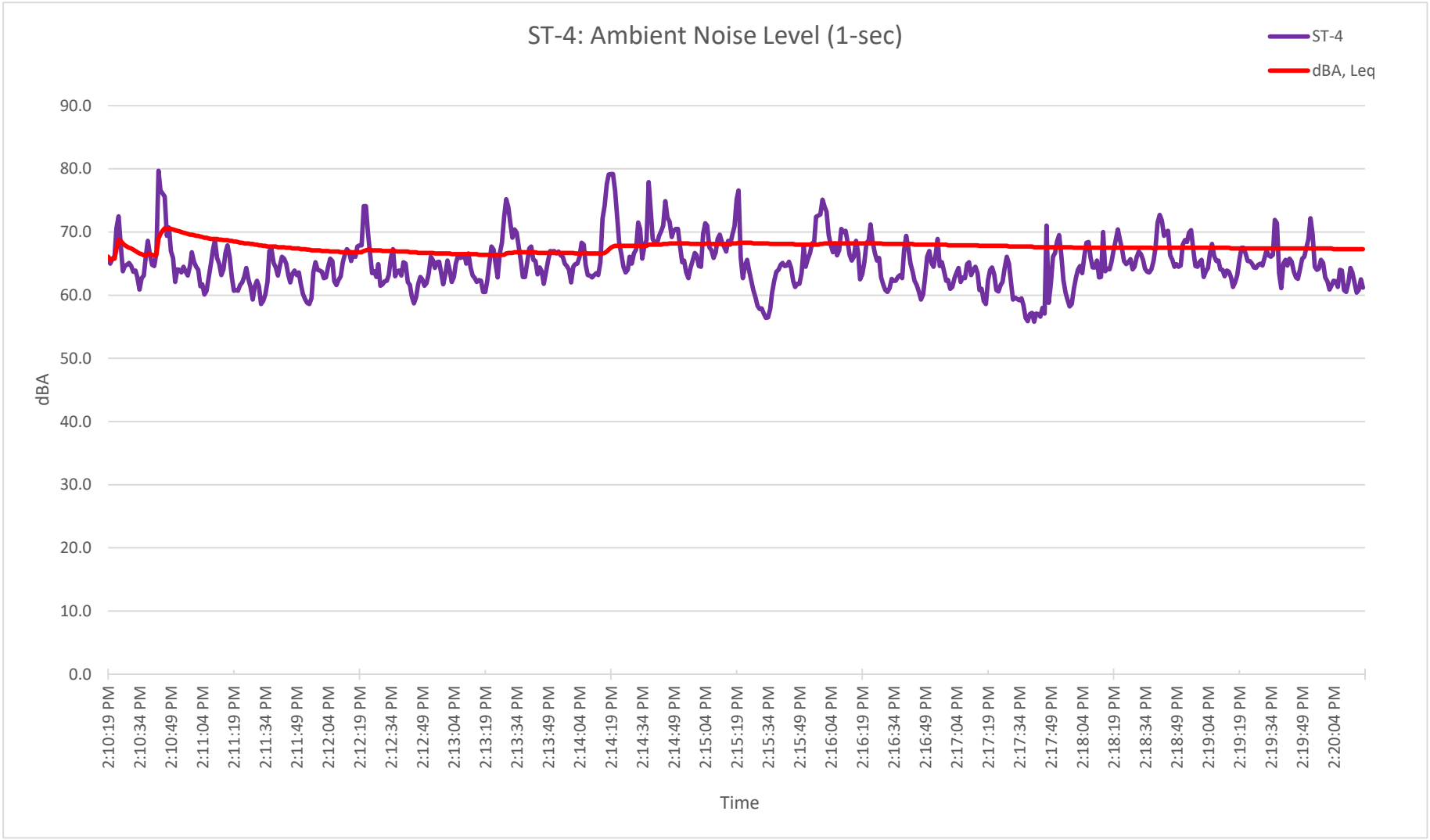

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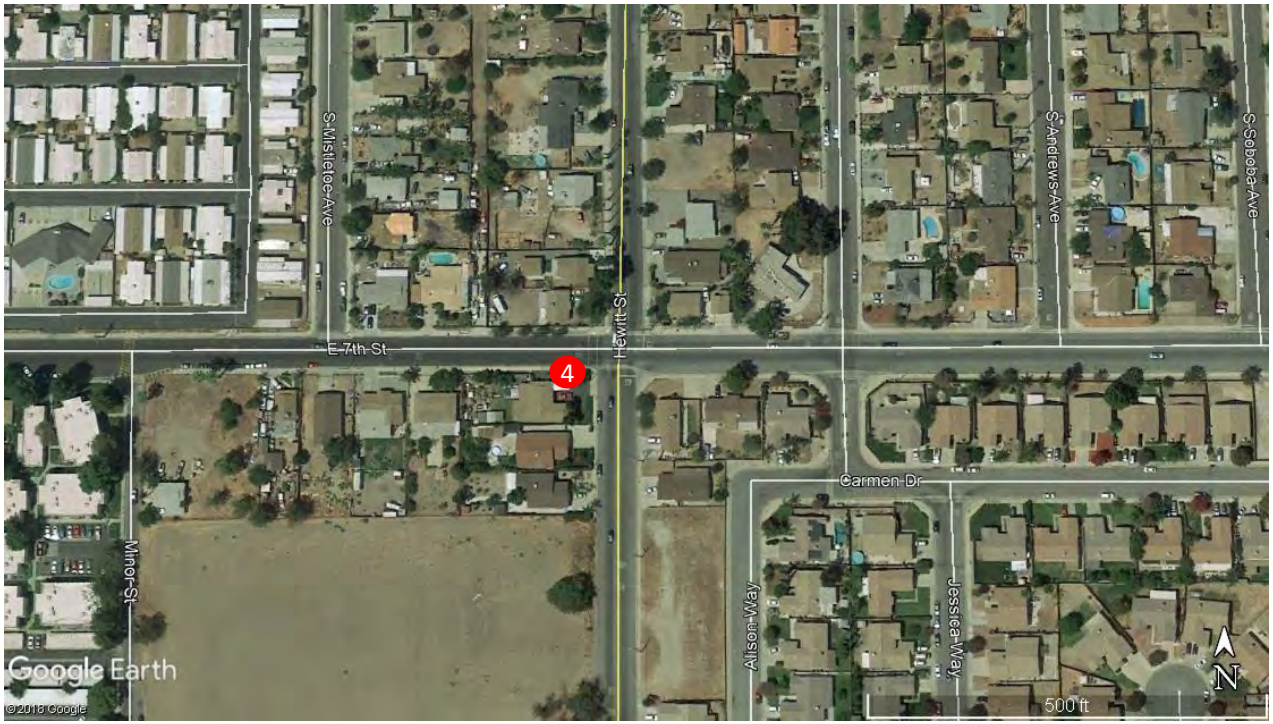
Figure 5: ST-4 Site



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10-Minute Continuous Noise Measurement Datasheet - ST-5

Project: 04621801 San Jacinto GP Noise STMS
Site Address/Location: Ramona Exp & Esplanade Ave
Site ID: ST-5

Site Topo: 63 Degrees
Cloudy, slight wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Ramona Exp is 45ft from meter
C/L of Esplanade Ave is 95ft from meter

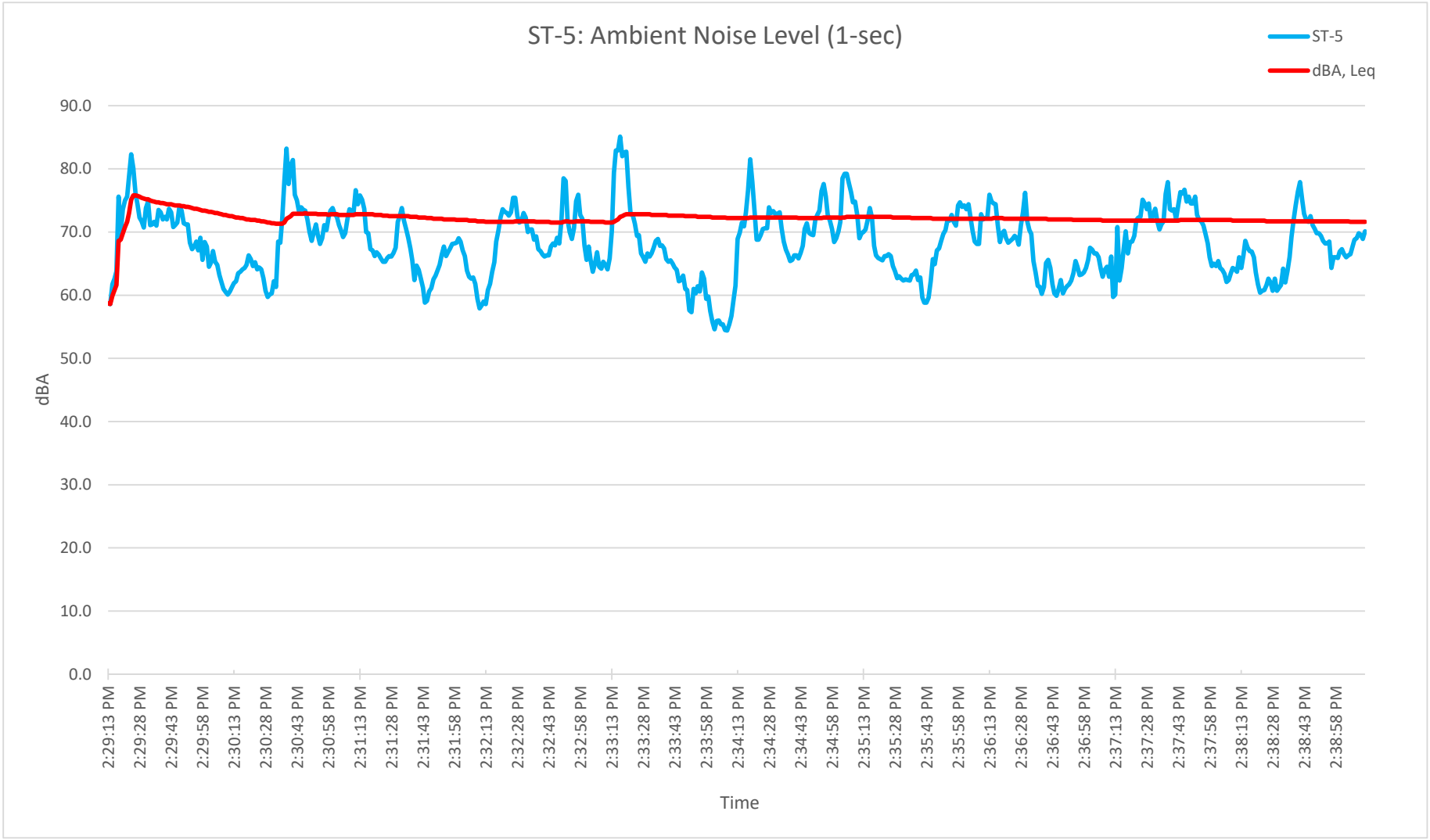

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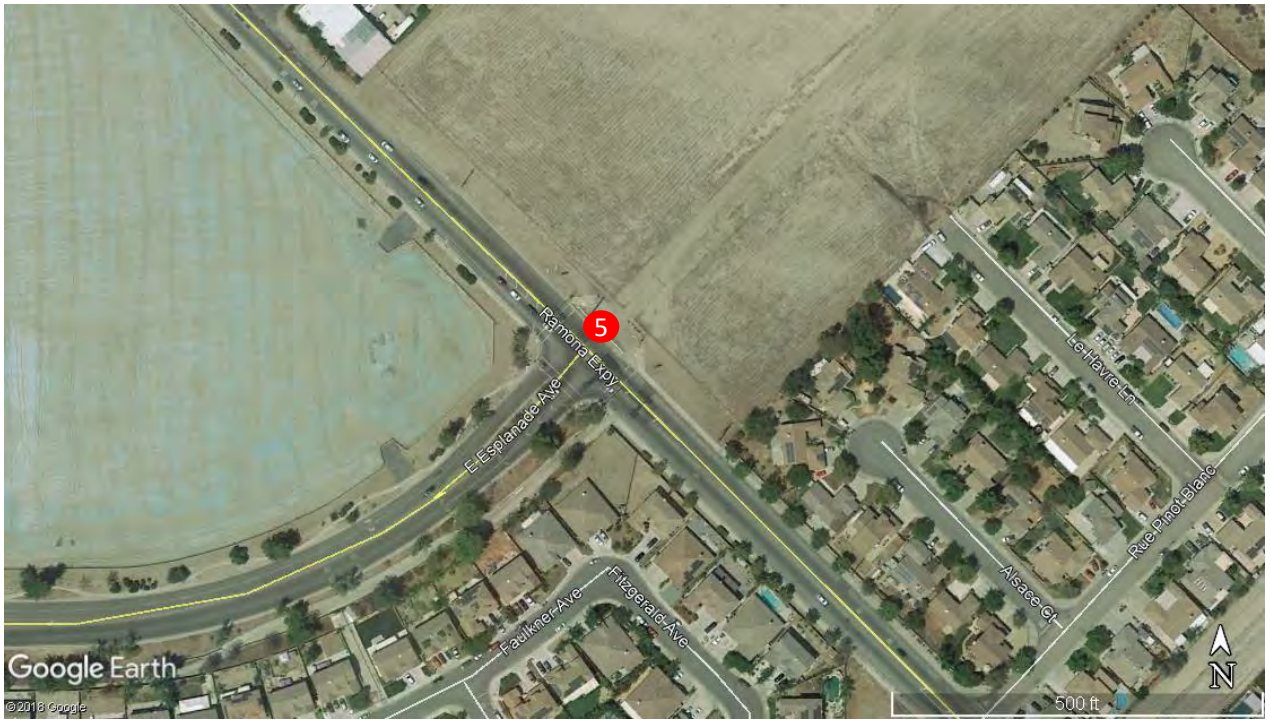
Figure 6: ST-5 Site



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10-Minute Continuous Noise Measurement Datasheet - ST-6

Project:	04621801 San Jacinto GP Noise STMS	**Site Topo:**	62 Degrees	**Noise Source(s) w/ Distance:**	
Site Address/Location:	Lyon Ave & De Anza Dr		Cloudy, no wind	C/L of Lyon Ave is 35ft from meter	
Site ID:	ST-6	**Ground Type:**	Soft site, w/ street surface hard	C/L of De Anzo Dr is 75ft from meter	

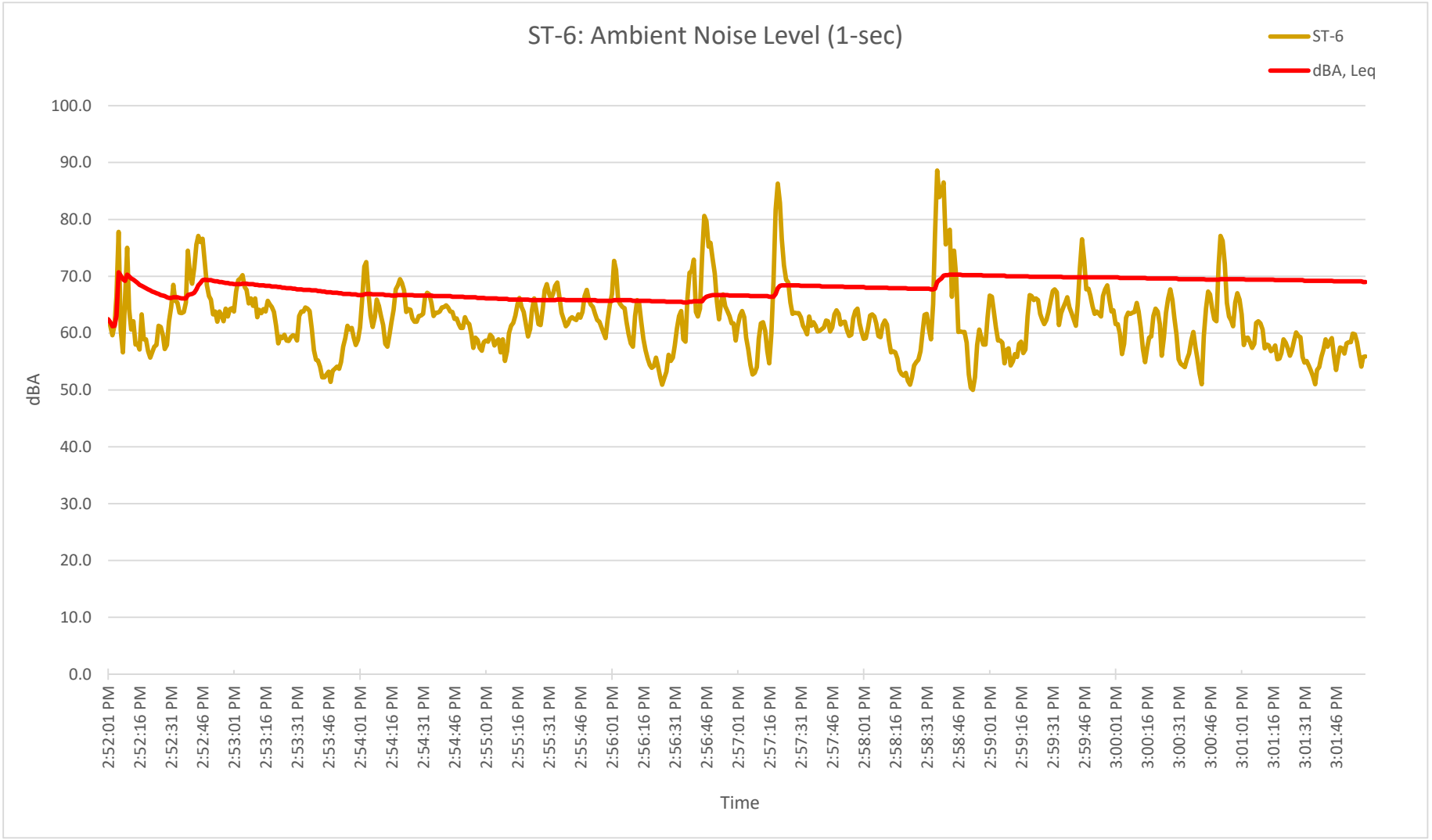

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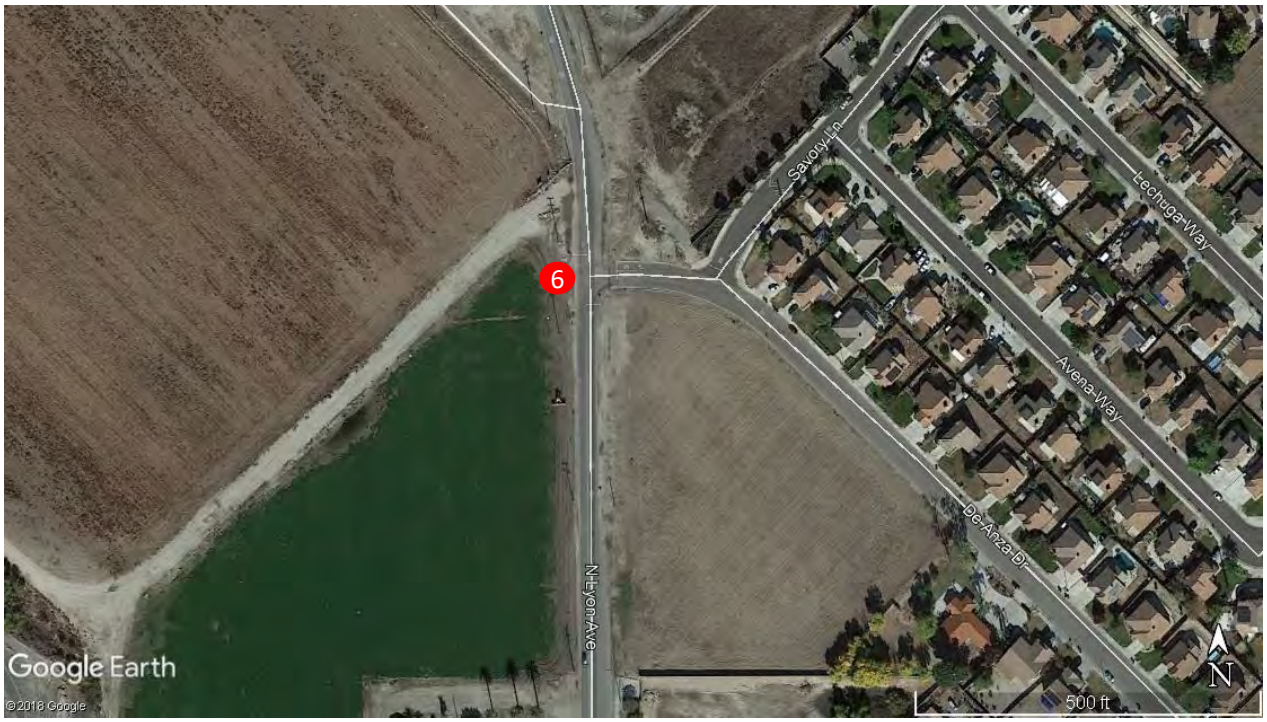
Figure 7: ST-6 Site



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10-Minute Continuous Noise Measurement Datasheet - ST-7

Project: 04621801 San Jacinto GP Noise STMS
Site Address/Location: Oakwood St & Santa Fe St
Site ID: ST-7

Site Topo: 62 Degrees
Cloudy, no wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Santa Fe St is 32ft from meter
C/L of Oakwood St. is 43ft from meter

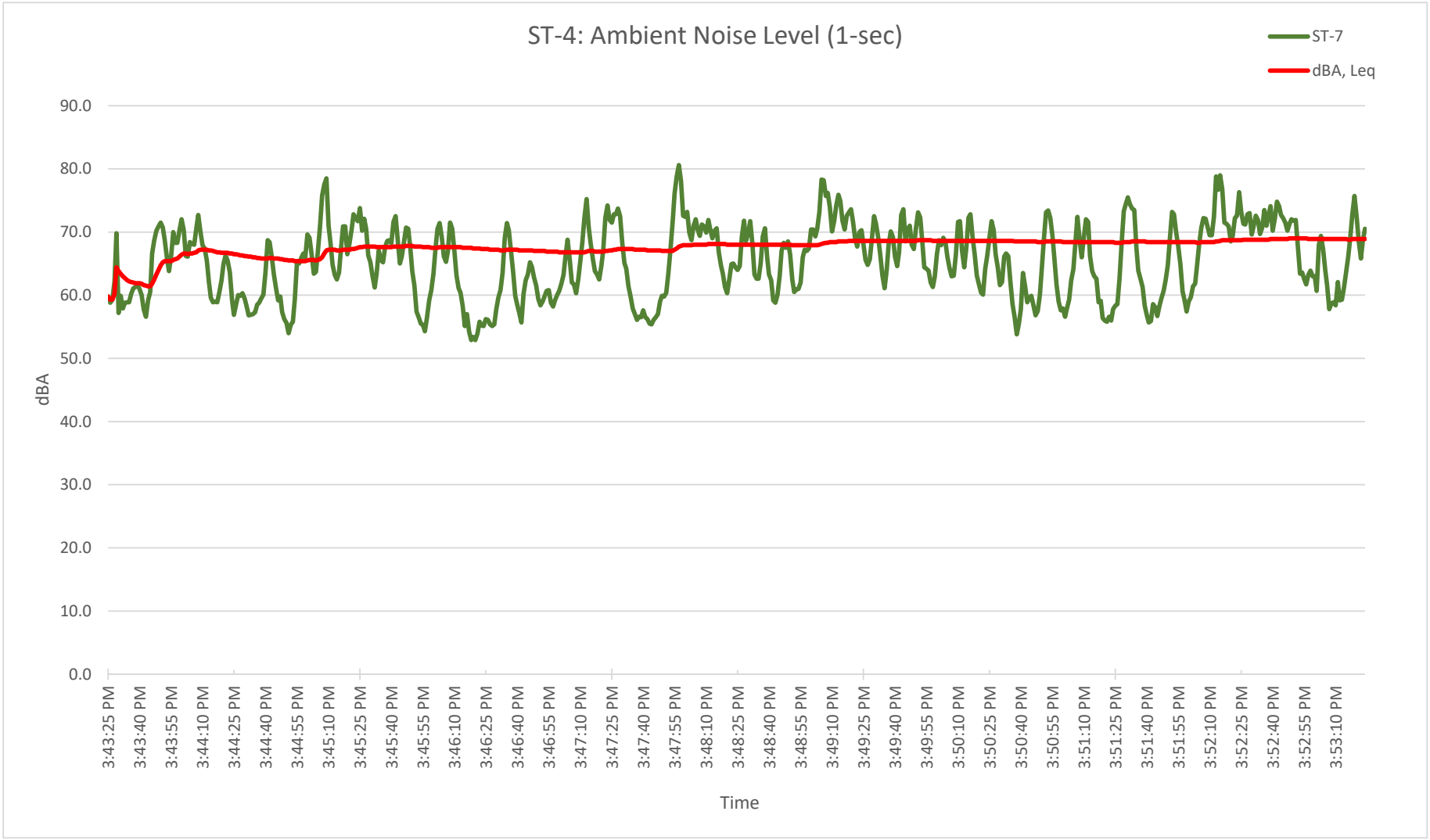

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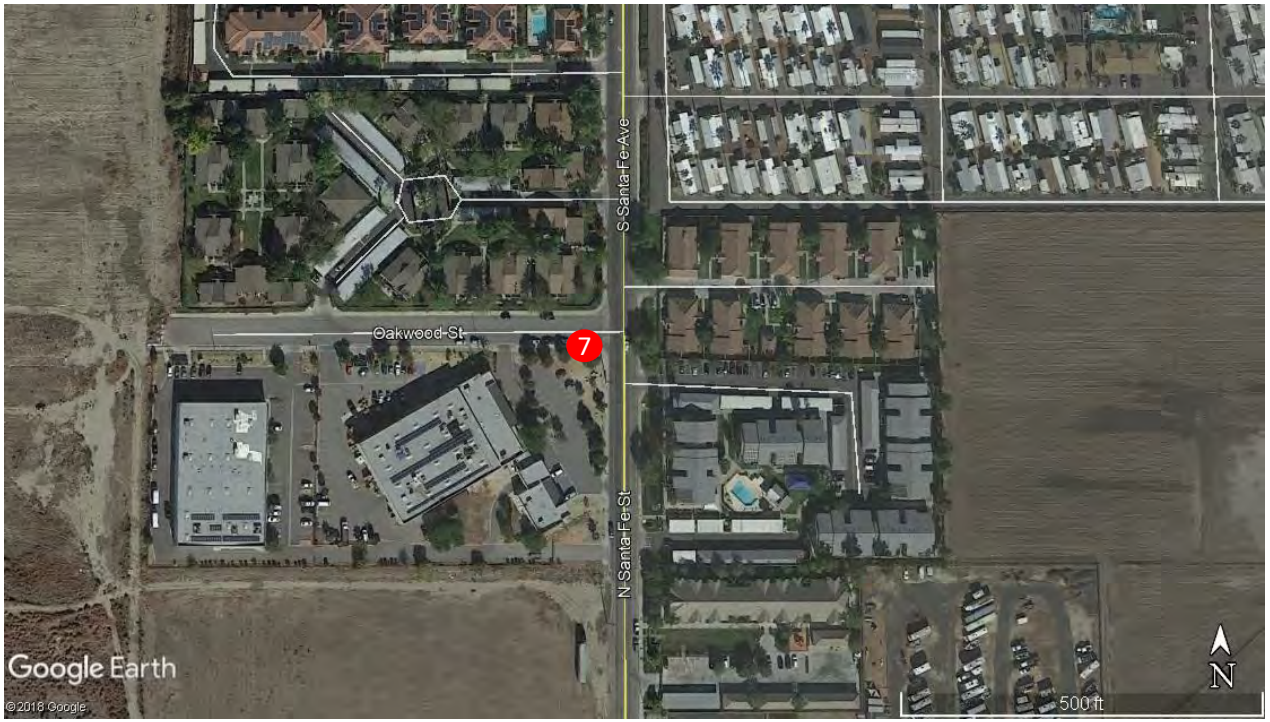
Figure 8: ST-7 Site



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24-Hour Continuous Noise Measurement Datasheet

Project:	04621801 San Jacinto GP Noise LTMS	**Site Observations:**	Cloudy sky w/ slight rain, Ambient noise consisted of traffic along Warren Rd and Ramona Exp.
Site Address/Location:	Warren Rd & Ramona Exp, San Jacinto, CA		
Date:	5/7/2019 to 5/8/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter: LD 831 **SN:** 3714

Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration

Meteorological Con.: Cloudy sky w/ slight rain

Site ID: LT-1

Site Topo: Flat

Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:

C/L of Warren Rd is 50ft from meter

C/L of Ramona Exp. is 70ft from meter

Figure 1: LT-1 Monitoring Location

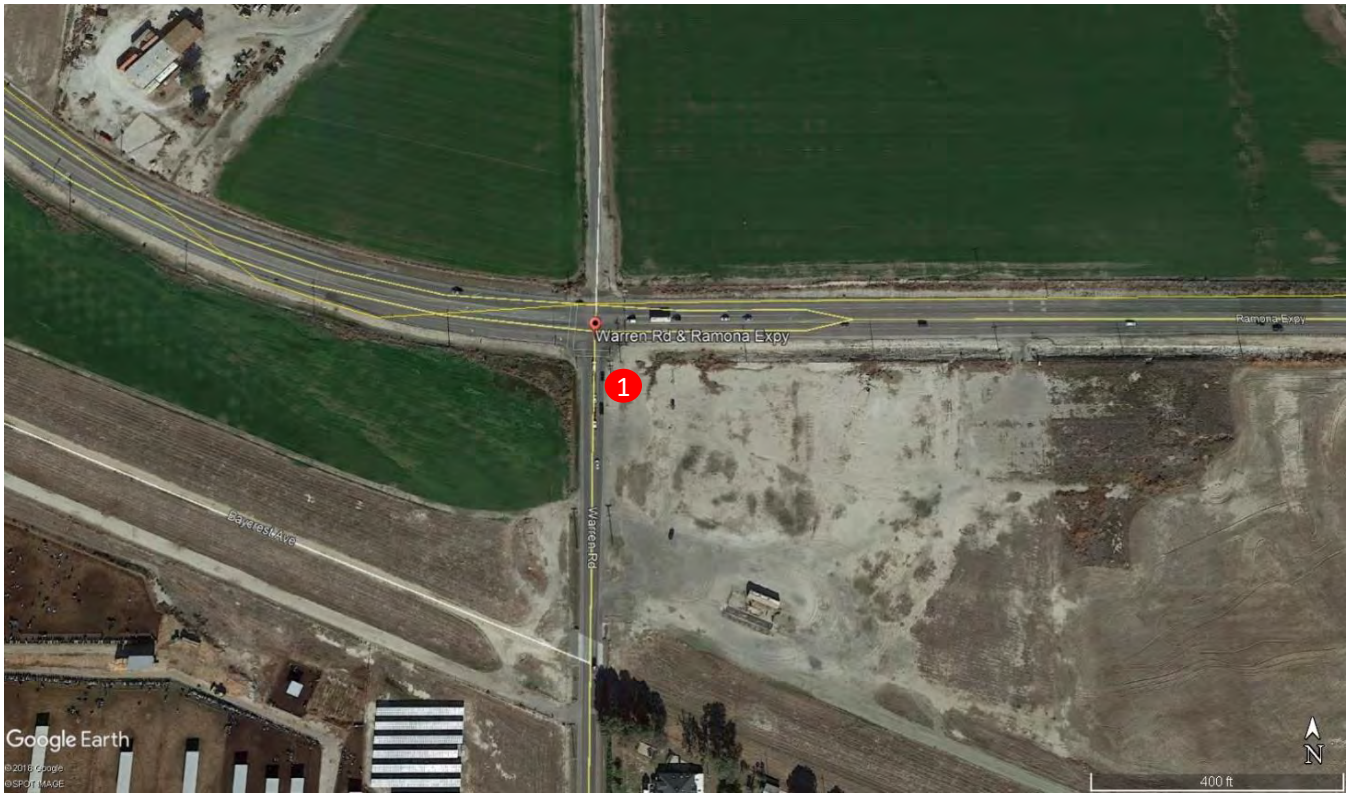

Figure 2: LT-1 Photo



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24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Warren Rd & Ramona Exp, San Jacinto, CA
Site ID: LT-1

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
5/7/2019	11:00 AM	12:00 PM	67.8	86.0	48.7	72.0	71.6	68.9	66.7	62.2
5/7/2019	12:00 PM	1:00 PM	67.9	84.1	50.6	72.7	70.0	68.3	67.4	64.1
5/7/2019	1:00 PM	2:00 PM	69.9	93.3	49.7	76.0	71.4	69.2	67.4	64.3
5/7/2019	2:00 PM	3:00 PM	70.1	92.6	52.5	76.1	73.2	69.6	67.5	64.9
5/7/2019	3:00 PM	4:00 PM	67.3	86.7	53.1	71.4	69.7	68.2	66.8	63.7
5/7/2019	4:00 PM	5:00 PM	65.2	81.9	53.6	68.4	66.6	65.4	64.8	63.0
5/7/2019	5:00 PM	6:00 PM	65.9	83.0	52.5	71.4	67.9	65.8	64.9	63.1
5/7/2019	6:00 PM	7:00 PM	66.5	79.6	53.7	69.3	68.3	67.0	66.1	65.0
5/7/2019	7:00 PM	8:00 PM	66.5	78.8	55.1	68.5	68.0	67.1	66.2	65.1
5/7/2019	8:00 PM	9:00 PM	66.7	80.3	54.9	69.2	68.3	67.2	66.4	65.1
5/7/2019	9:00 PM	10:00 PM	66.2	78.2	55.7	68.4	67.4	66.6	66.0	65.1
5/7/2019	10:00 PM	11:00 PM	65.6	78.3	55.1	67.6	67.2	66.3	65.4	63.9
5/7/2019	11:00 PM	12:00 AM	65.0	79.3	50.1	67.9	66.9	65.6	64.5	63.1
5/8/2019	12:00 AM	1:00 AM	63.6	79.4	48.3	68.8	66.3	64.5	63.1	59.8
5/8/2019	1:00 AM	2:00 AM	62.0	78.4	46.7	66.8	64.6	62.8	61.1	58.3
5/8/2019	2:00 AM	3:00 AM	60.7	77.0	44.0	64.0	63.0	62.3	60.3	54.9
5/8/2019	3:00 AM	4:00 AM	61.7	76.6	44.6	64.3	64.0	62.9	62.0	56.5
5/8/2019	4:00 AM	5:00 AM	61.0	81.8	45.4	64.7	63.5	62.7	61.3	54.4
5/8/2019	5:00 AM	6:00 AM	62.0	79.9	47.0	66.8	65.7	63.6	61.3	55.0
5/8/2019	6:00 AM	7:00 AM	63.1	79.1	46.9	66.4	65.9	64.8	63.2	57.3
5/8/2019	7:00 AM	8:00 AM	65.1	79.1	49.1	68.7	67.0	66.1	64.9	60.3
5/8/2019	8:00 AM	9:00 AM	66.0	78.1	49.8	68.4	67.4	66.7	66.1	63.7
5/8/2019	9:00 AM	10:00 AM	66.7	76.6	50.5	70.0	68.5	67.3	66.3	64.8
5/8/2019	10:00 AM	11:00 AM	67.4	81.2	50.7	70.9	68.5	67.7	67.1	65.8

CNEL: 70.4

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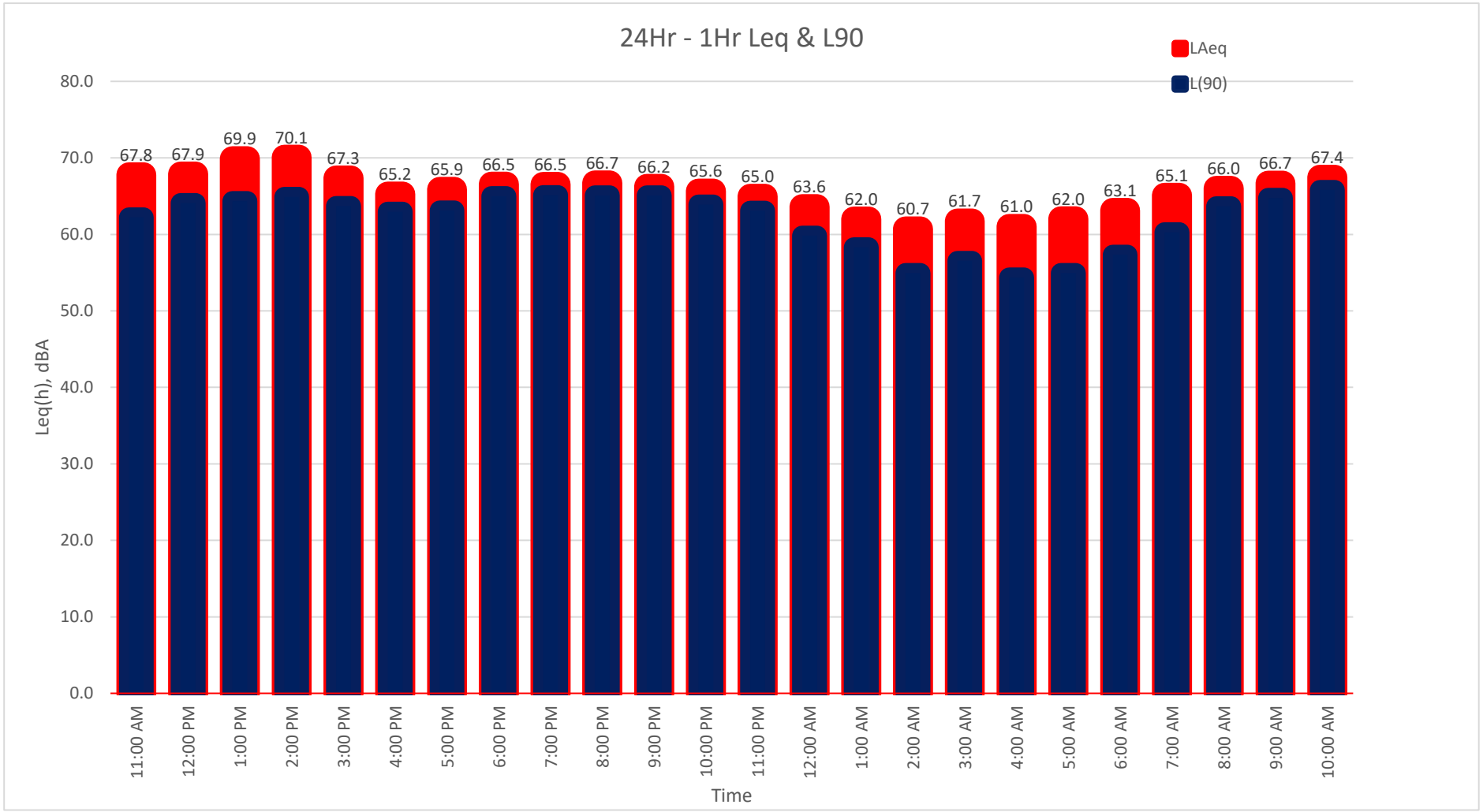
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Warren Rd & Ramona Exp, San Jacinto, CA
Site ID: LT-1



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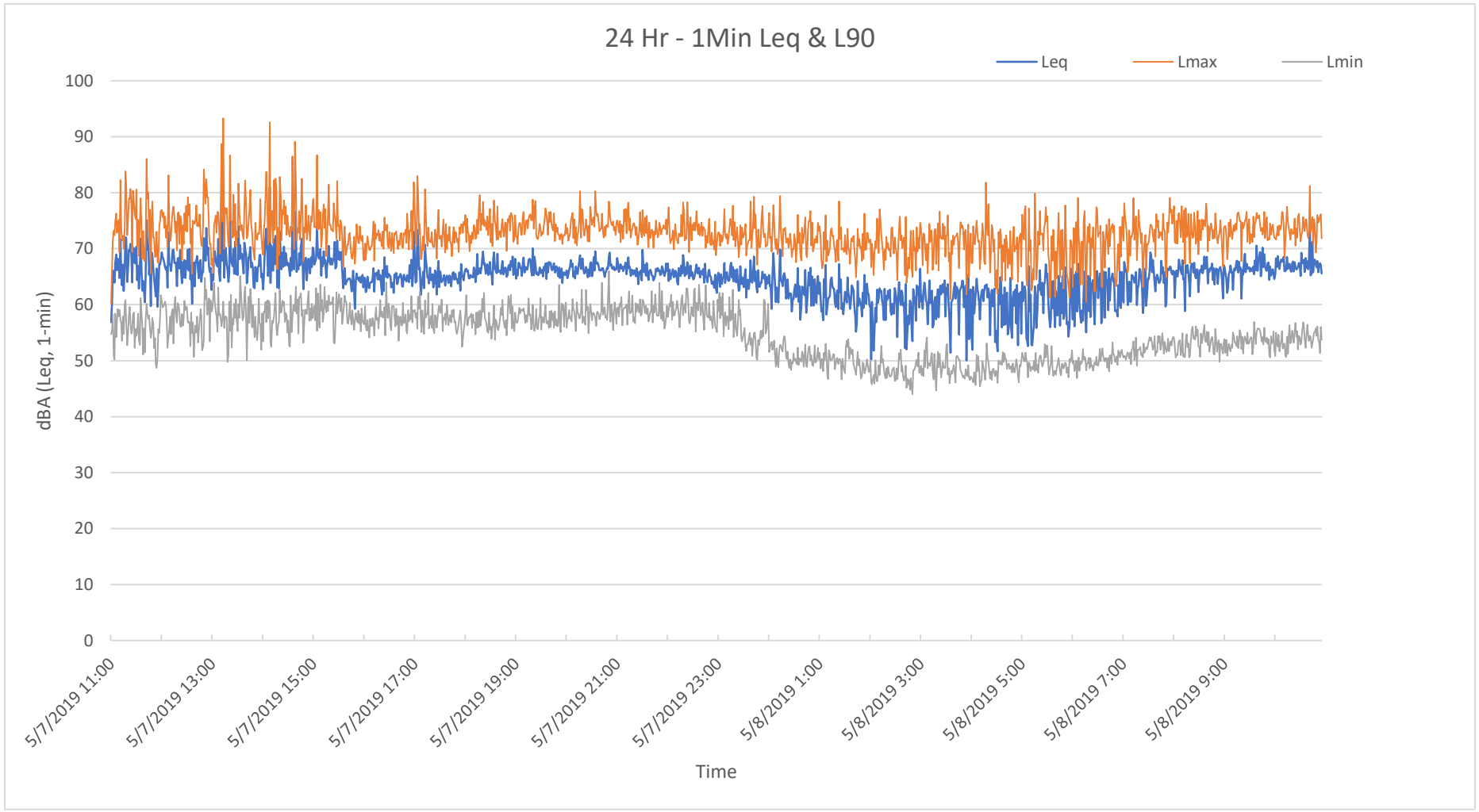
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1

Site Address/Location: Warren Rd & Ramona Exp, San Jacinto, CA

Site ID: LT-1



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24-Hour Continuous Noise Measurement Datasheet

Project:	04621801 San Jacinto GP Noise LTMS	**Site Observations:**	Cloudy sky w/ slight rain, Ambient noise consisted of traffic along Sanderson Ave and Ramona Exp.
Site Address/Location:	Sanderson Ave & Ramona Exp, San Jacinto, CA		
Date:	5/7/2019 to 5/8/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter:	LD 831 **SN:** 3713	**Site Topo:**	Flat
Settings:	A-weighted, slow, 1-min, 1-hour interval, 24-hour duration	**Ground Type:**	Soft site, w/ street surface hard
Meteorological Con.:	Cloudy sky w/ slight rain		
Site ID:	LT-2		

Noise Source(s) w/ Distance:

C/L of Ramona Exp. is 50ft from meter

C/L of Sanderson Ave. is 215ft from meter

Figure 1: LT-2 Monitoring Location

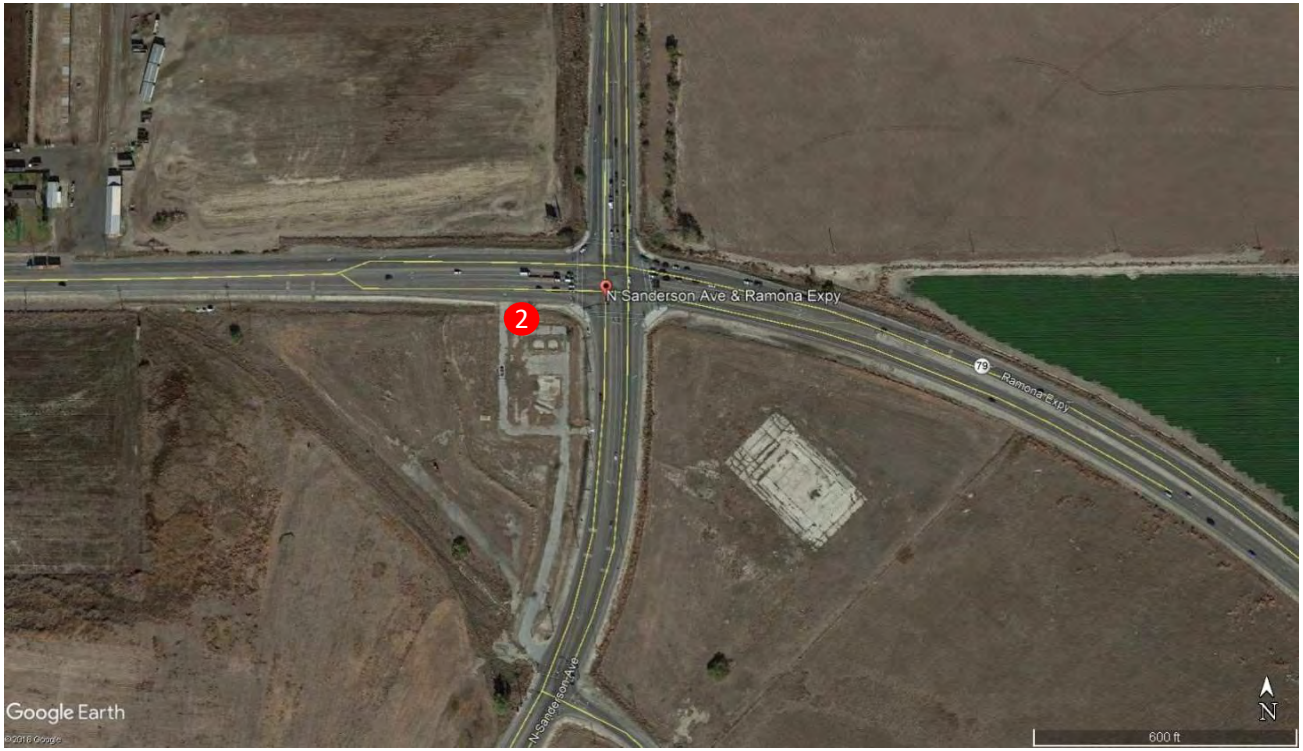

Figure 2: LT-2 Photo



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24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Sanderson Ave & Ramona Exp, San Jacinto, CA
Site ID: LT-2

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
5/7/2019	11:00 AM	12:00 PM	63.7	75.7	47.7	67.3	66.2	65.1	62.7	60.0
5/7/2019	12:00 PM	1:00 PM	64.9	83.3	49.0	69.2	68.1	65.4	63.8	61.4
5/7/2019	1:00 PM	2:00 PM	66.2	90.5	51.8	69.8	67.4	65.9	64.8	62.4
5/7/2019	2:00 PM	3:00 PM	67.3	91.6	51.2	70.7	69.0	66.7	65.2	62.7
5/7/2019	3:00 PM	4:00 PM	66.6	81.1	57.1	69.7	68.9	67.4	66.2	64.2
5/7/2019	4:00 PM	5:00 PM	68.4	90.5	58.0	75.6	69.2	68.2	66.6	64.7
5/7/2019	5:00 PM	6:00 PM	66.6	76.7	57.4	69.5	69.1	67.3	66.0	64.3
5/7/2019	6:00 PM	7:00 PM	66.5	85.0	53.8	70.3	68.9	67.4	65.7	63.7
5/7/2019	7:00 PM	8:00 PM	64.9	80.7	52.0	69.2	68.2	65.8	63.6	61.9
5/7/2019	8:00 PM	9:00 PM	62.2	73.8	50.5	64.9	64.3	63.4	62.0	59.4
5/7/2019	9:00 PM	10:00 PM	61.7	81.8	48.1	67.6	64.3	62.1	60.5	57.5
5/7/2019	10:00 PM	11:00 PM	63.3	87.9	47.7	73.1	64.5	62.0	60.0	57.1
5/7/2019	11:00 PM	12:00 AM	62.3	84.6	44.2	68.2	65.2	62.0	60.0	56.8
5/8/2019	12:00 AM	1:00 AM	62.2	88.2	40.6	70.8	63.8	60.1	57.6	53.7
5/8/2019	1:00 AM	2:00 AM	57.1	70.6	36.7	61.5	60.1	58.0	56.3	52.7
5/8/2019	2:00 AM	3:00 AM	57.4	72.6	37.3	61.0	59.9	58.9	57.2	53.0
5/8/2019	3:00 AM	4:00 AM	57.2	72.1	37.9	60.3	59.7	58.5	56.4	53.7
5/8/2019	4:00 AM	5:00 AM	57.3	72.5	43.1	61.0	60.4	58.3	56.5	54.1
5/8/2019	5:00 AM	6:00 AM	59.4	77.6	45.0	63.5	62.9	60.5	58.2	55.4
5/8/2019	6:00 AM	7:00 AM	60.6	76.8	46.9	65.0	64.3	61.5	59.5	57.4
5/8/2019	7:00 AM	8:00 AM	62.3	77.1	49.1	65.3	64.8	63.2	61.7	59.3
5/8/2019	8:00 AM	9:00 AM	63.4	76.6	49.8	66.8	65.8	64.4	63.4	59.9
5/8/2019	9:00 AM	10:00 AM	64.0	77.4	50.5	66.8	65.8	65.0	63.8	61.6
5/8/2019	10:00 AM	11:00 AM	63.6	77.0	50.7	66.7	65.1	64.3	63.5	61.3

CNEL: 67.9

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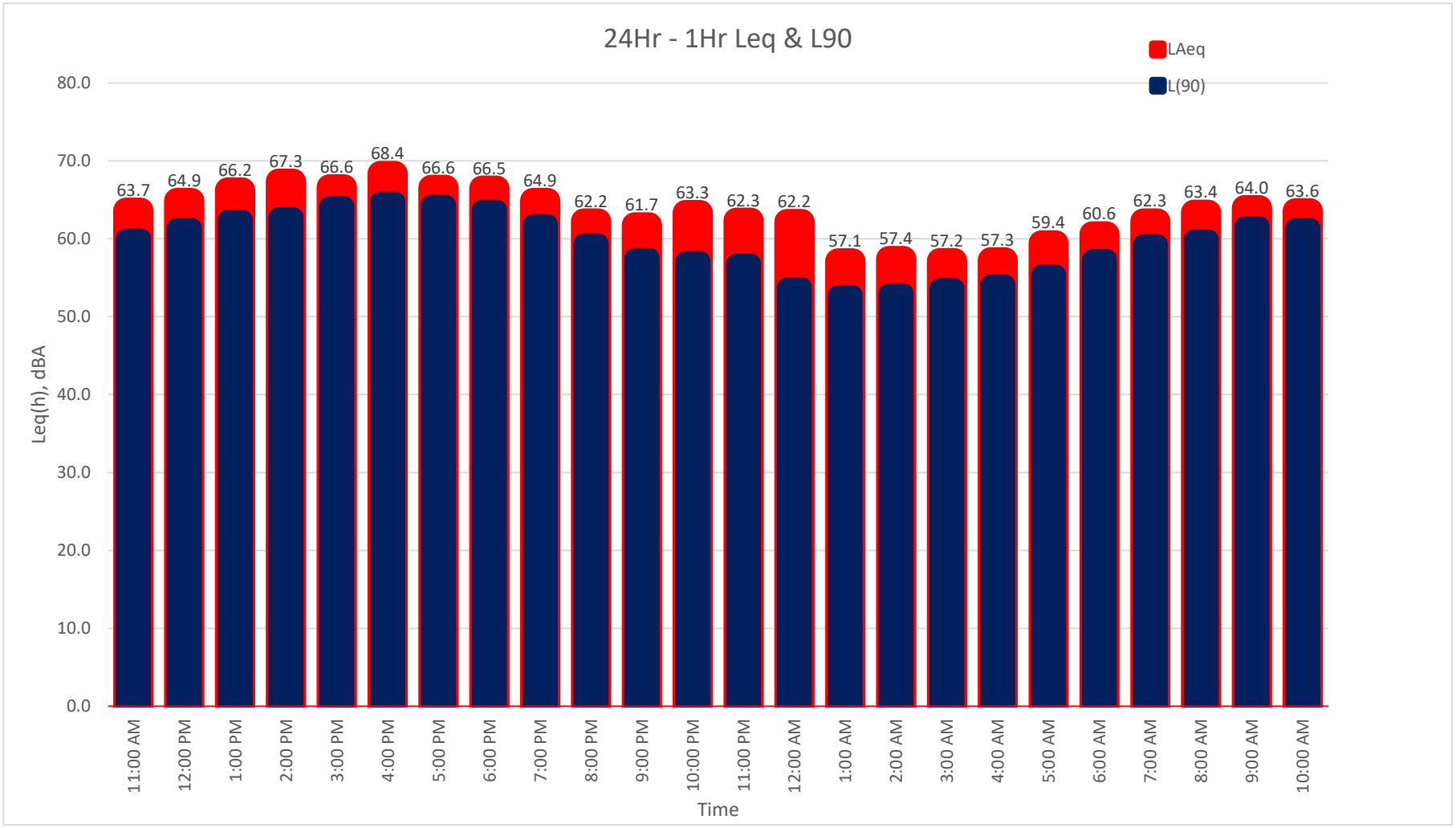
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1

Site Address/Location: Sanderson Ave & Ramona Exp, San Jacinto, CA

Site ID: LT-2



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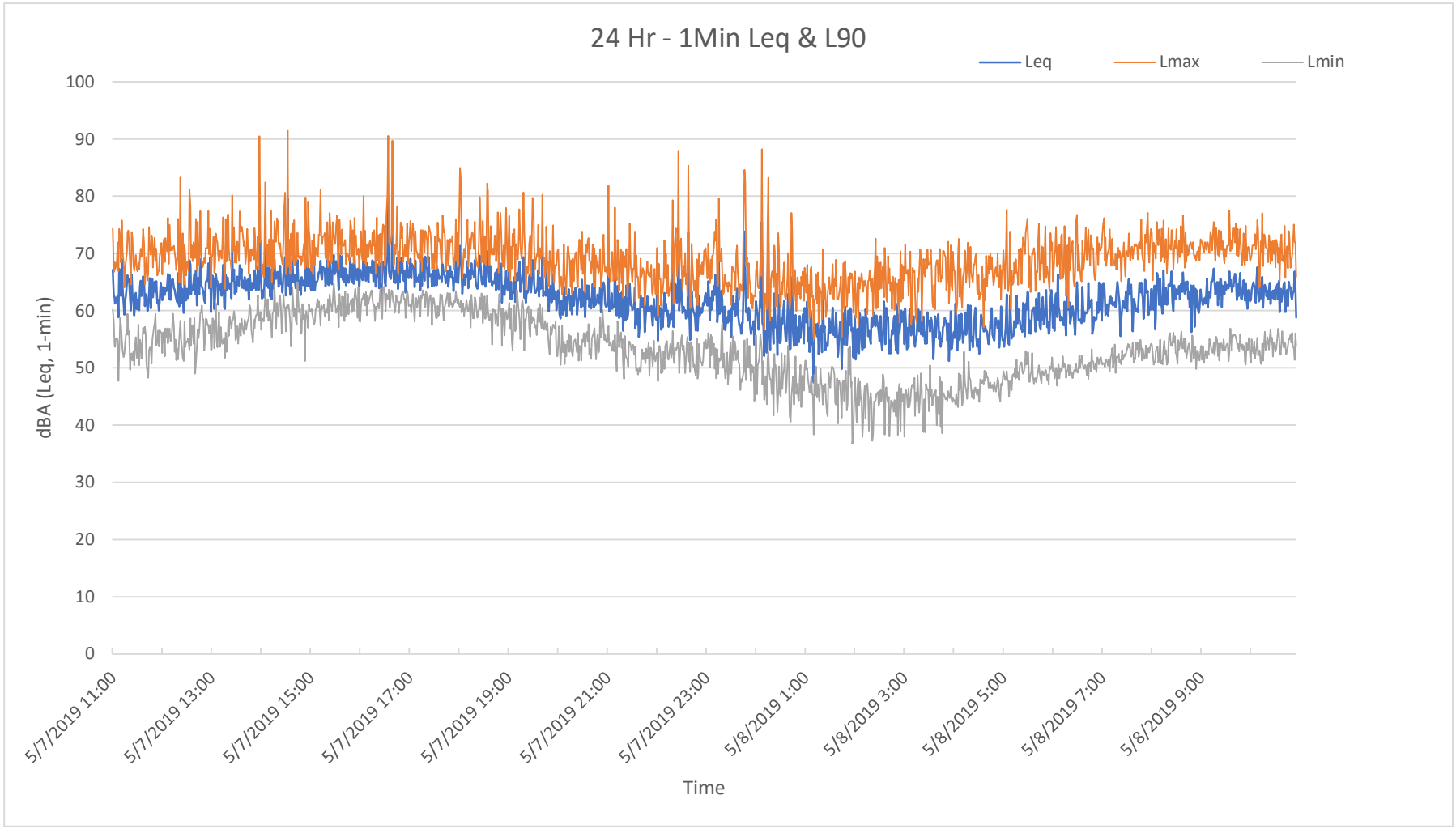
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Sanderson Ave & Ramona Exp, San Jacinto, CA
Site ID: LT-2



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24-Hour Continuous Noise Measurement Datasheet

Project: 04621801 San Jacinto GP Noise LTMS
Site Address/Location: Sanderson Ave & Cottonwood Ave, San Jacinto, CA
Date: 5/8/2019 to 5/9/2019
Field Tech/Engineer: Mike Dickerson, INCE

Site Observations: Cloudy sky w/ slight rain, Ambient noise consisted of traffic along Sanderson Ave and Cottonwood Ave.

General Location:
Sound Meter: XL2 **SN:** 08562-E0
Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration
Meteorological Con.: Cloudy sky w/ slight rain
Site ID: LT-3

Site Topo: Flat
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Sanderson Ave. is 50ft from meter
C/L of Cottonwood Ave. is 100ft from meter

Figure 1: LT-3 Monitoring Location

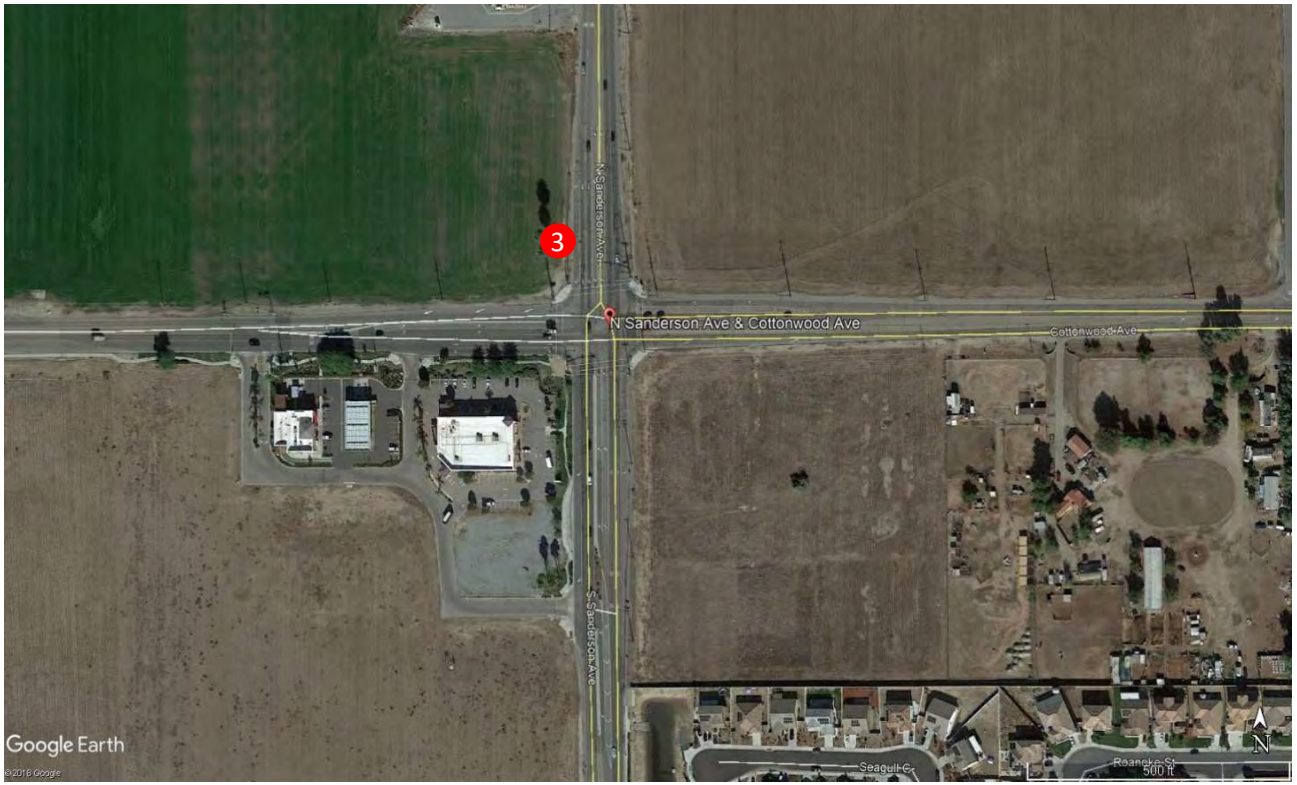

Figure 2: LT-3 Photo



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24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Sanderson Ave & Cottonwood Ave, San Jacinto, CA
Site ID: LT-3

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
5/8/2019	11:00 AM	12:00 PM	66.1	82.8	45.7	70.4	69.4	67.1	65.2	62.5
5/8/2019	12:00 PM	1:00 PM	68.6	92.7	46.1	77.2	71.3	67.7	66.2	62.9
5/8/2019	1:00 PM	2:00 PM	67.0	84.1	50.4	70.5	69.5	68.3	66.7	63.2
5/8/2019	2:00 PM	3:00 PM	67.3	82.8	50.0	72.2	70.4	68.8	65.4	61.5
5/8/2019	3:00 PM	4:00 PM	69.3	95.0	50.2	75.0	72.6	69.3	67.8	63.4
5/8/2019	4:00 PM	5:00 PM	68.7	95.8	49.7	74.9	71.0	68.9	66.8	63.0
5/8/2019	5:00 PM	6:00 PM	68.0	85.7	52.3	72.2	70.9	69.2	67.3	62.5
5/8/2019	6:00 PM	7:00 PM	67.1	88.0	50.3	71.1	70.0	68.2	66.2	62.4
5/8/2019	7:00 PM	8:00 PM	66.3	87.5	49.9	70.3	68.5	67.1	65.6	61.5
5/8/2019	8:00 PM	9:00 PM	64.8	85.9	47.3	69.8	68.3	65.0	63.9	61.2
5/8/2019	9:00 PM	10:00 PM	68.1	101.8	43.0	73.6	69.8	65.7	63.5	60.5
5/8/2019	10:00 PM	11:00 PM	64.9	91.6	38.3	69.3	66.6	64.7	63.1	59.2
5/8/2019	11:00 PM	12:00 AM	62.9	84.2	37.8	66.8	65.8	63.7	62.3	57.2
5/9/2019	12:00 AM	1:00 AM	61.3	80.7	34.4	65.8	64.9	62.6	60.0	54.8
5/9/2019	1:00 AM	2:00 AM	60.2	81.4	31.9	65.6	63.9	61.2	59.1	53.1
5/9/2019	2:00 AM	3:00 AM	60.5	85.9	32.5	66.5	64.2	61.4	59.0	52.6
5/9/2019	3:00 AM	4:00 AM	63.5	91.0	36.7	68.0	66.3	64.1	61.5	56.3
5/9/2019	4:00 AM	5:00 AM	66.3	93.5	44.9	72.4	67.4	65.8	64.1	60.4
5/9/2019	5:00 AM	6:00 AM	67.2	87.9	49.8	71.4	69.1	68.0	66.2	63.8
5/9/2019	6:00 AM	7:00 AM	67.9	85.9	51.9	71.5	70.1	69.1	67.4	64.3
5/9/2019	7:00 AM	8:00 AM	67.7	86.7	52.1	71.8	70.0	68.7	67.4	63.8
5/9/2019	8:00 AM	9:00 AM	67.7	95.3	49.9	72.7	70.2	67.8	65.7	63.1
5/9/2019	9:00 AM	10:00 AM	67.7	88.2	48.0	71.9	70.7	68.5	67.0	62.9
5/9/2019	10:00 AM	11:00 AM	67.0	87.2	44.2	72.1	71.6	67.8	64.9	59.1

CNEL: 71.7

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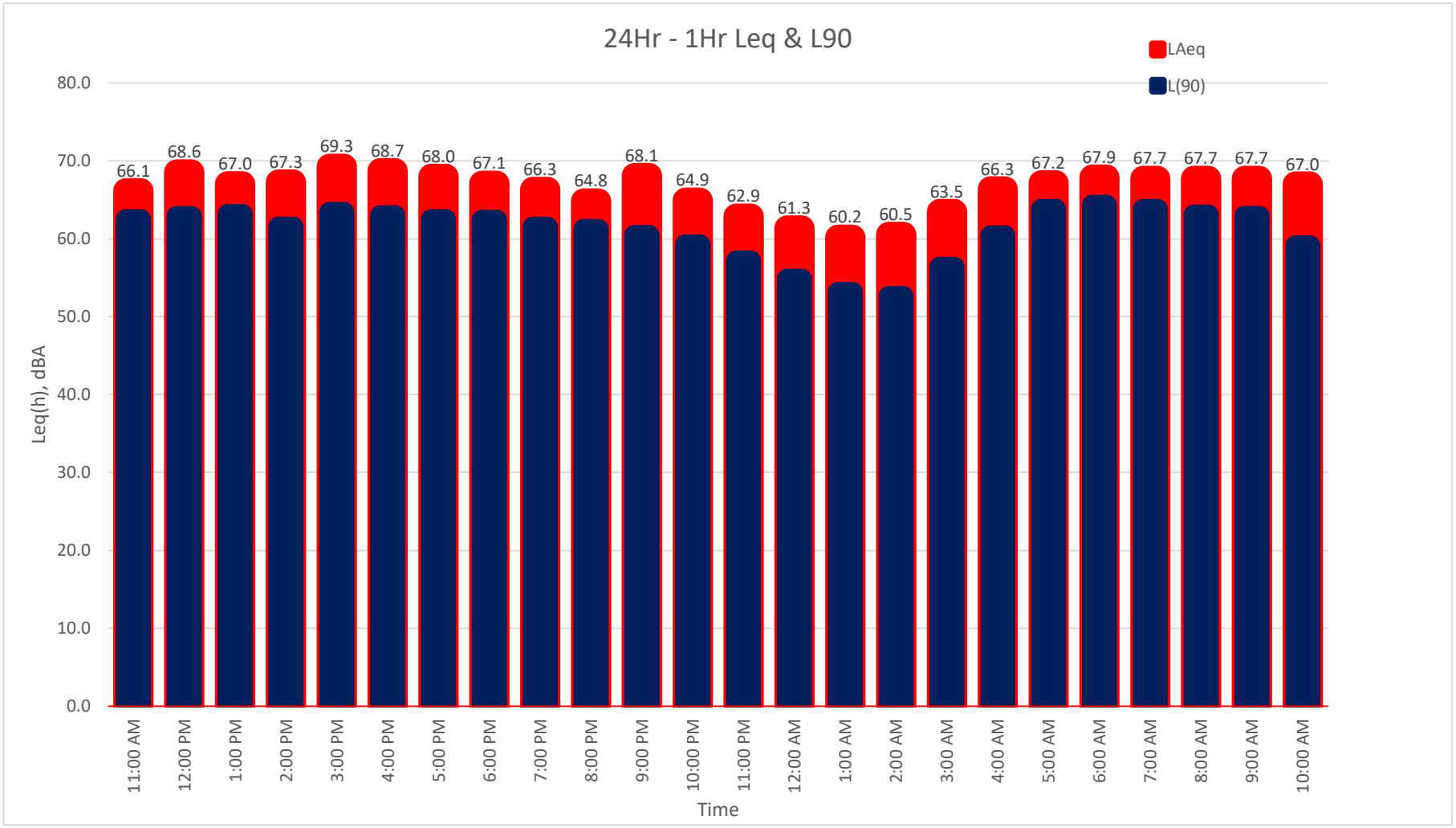
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Sanderson Ave & Cottonwood Ave, San Jacinto, CA
Site ID: LT-3



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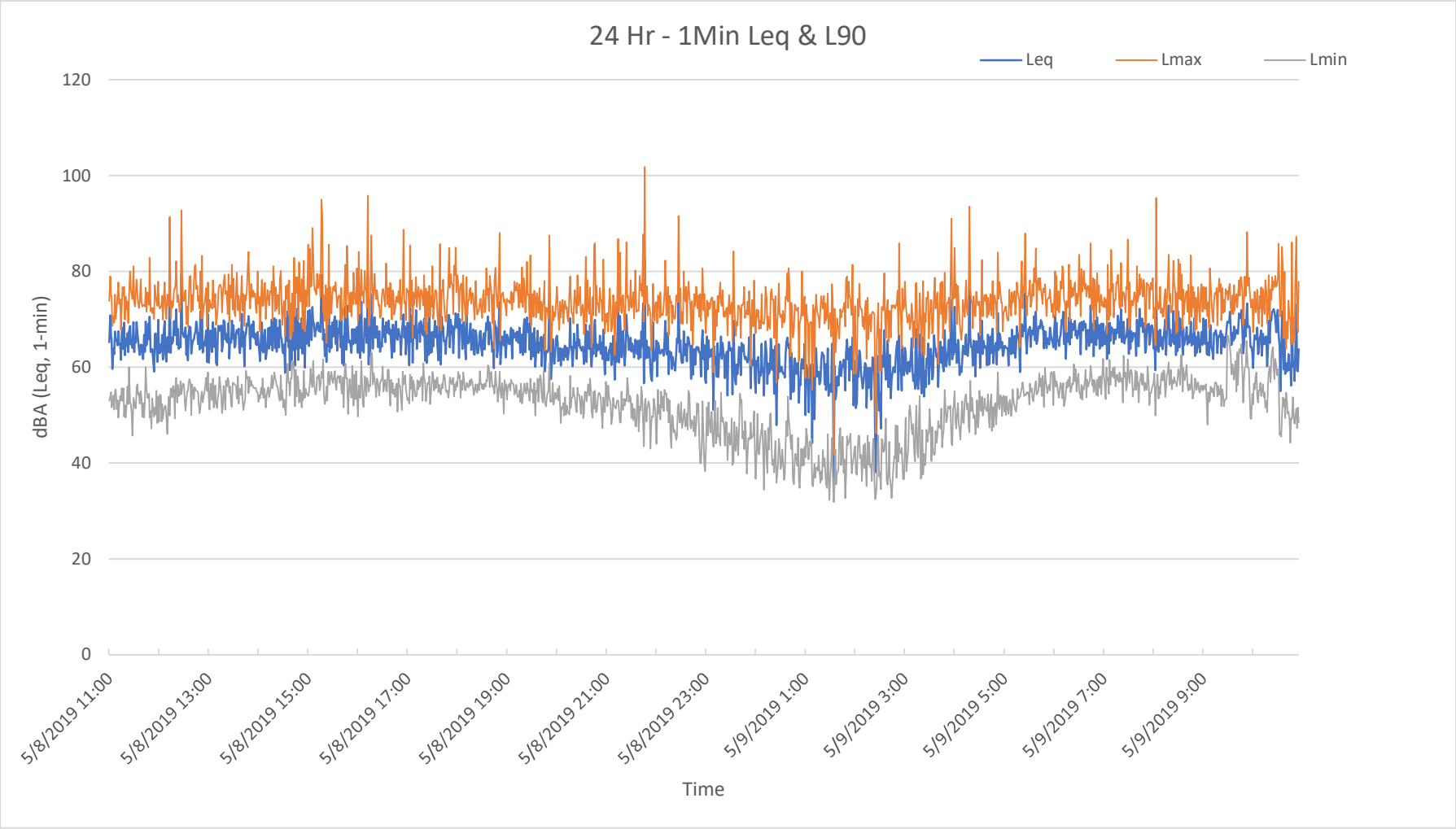
Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1

Site Address/Location: Sanderson Ave & Cottonwood Ave, San Jacinto, CA

Site ID: LT-3



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24-Hour Continuous Noise Measurement Datasheet

Project:	04621801 San Jacinto GP Noise LTMS	**Site Observations:**	Cloudy sky w/ slight rain, Ambient noise consisted of traffic along State St and Ramona Exp.
Site Address/Location:	State St & Ramona Exp, San Jacinto, CA		
Date:	5/8/2019 to 5/9/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter:	LD 831 **SN:** 3168	**Site Topo:**	Flat
Settings:	A-weighted, slow, 1-min, 1-hour interval, 24-hour duration	**Ground Type:**	Soft site, w/ street surface hard
Meteorological Con.:	Cloudy sky w/ slight rain		
Site ID:	LT-4		

Noise Source(s) w/ Distance:

C/L of State St is 50ft from meter

C/L of Ramona Exp. is 50ft from meter

Figure 1: LT-4 Monitoring Location

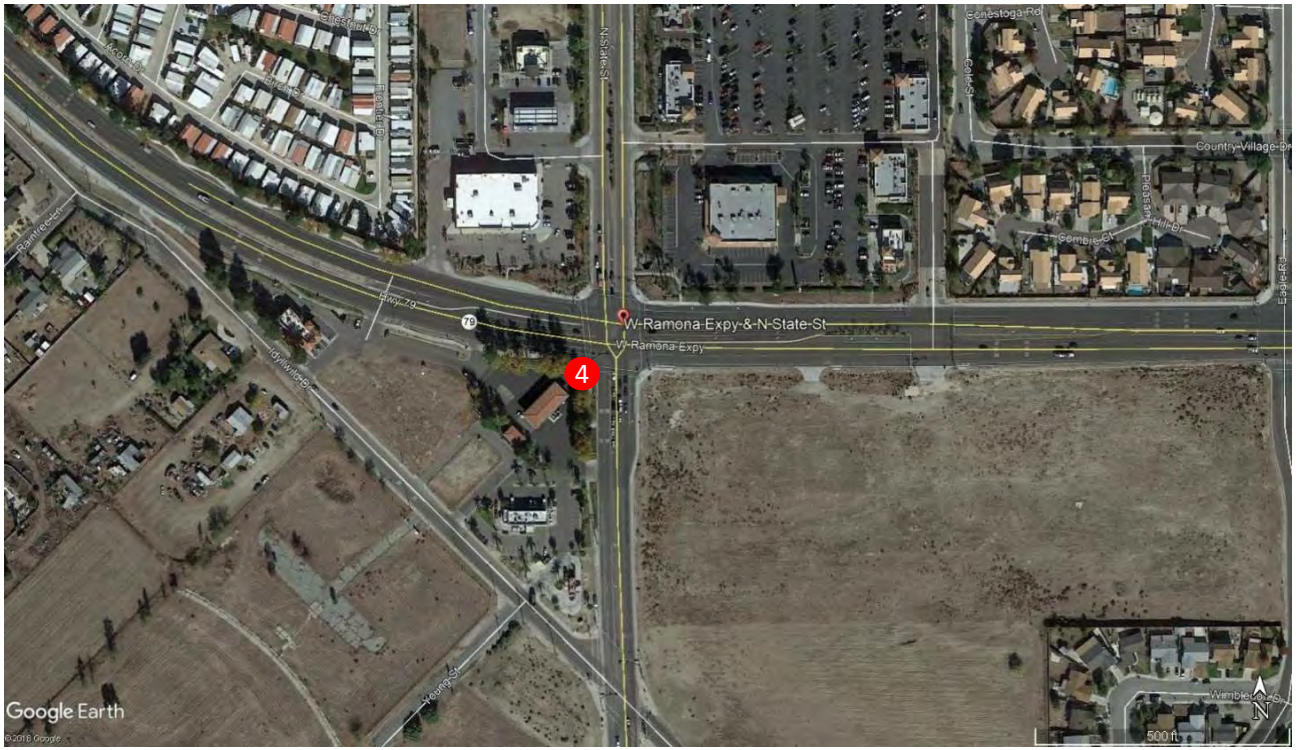

Figure 2: LT-4 Photo



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Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: State St & Ramona Exp, San Jacinto, CA
Site ID: LT-4

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
5/8/2019	11:00 AM	12:00 PM	68.0	90.4	51.4	75.6	70.5	67.9	66.2	63.2
5/8/2019	12:00 PM	1:00 PM	68.0	90.6	52.0	74.0	71.2	67.4	66.0	64.0
5/8/2019	1:00 PM	2:00 PM	69.3	94.4	53.1	75.8	71.7	68.3	66.8	64.2
5/8/2019	2:00 PM	3:00 PM	68.4	89.6	54.0	73.8	70.0	68.8	67.6	64.8
5/8/2019	3:00 PM	4:00 PM	71.3	97.8	54.8	80.0	71.4	68.8	67.4	65.1
5/8/2019	4:00 PM	5:00 PM	70.2	95.3	53.9	75.8	70.9	68.7	67.6	65.5
5/8/2019	5:00 PM	6:00 PM	68.4	87.0	55.3	74.3	71.7	68.5	66.6	65.1
5/8/2019	6:00 PM	7:00 PM	67.2	89.1	53.5	71.2	69.1	67.4	66.1	64.3
5/8/2019	7:00 PM	8:00 PM	66.0	86.2	51.7	69.8	68.8	66.0	65.0	63.5
5/8/2019	8:00 PM	9:00 PM	66.2	85.0	50.4	72.9	70.0	66.0	64.1	62.1
5/8/2019	9:00 PM	10:00 PM	64.9	88.8	46.6	68.9	67.8	64.6	63.5	61.1
5/8/2019	10:00 PM	11:00 PM	63.6	83.9	43.2	68.5	67.2	63.7	61.8	58.9
5/8/2019	11:00 PM	12:00 AM	68.2	95.6	39.6	72.5	66.4	63.9	60.6	57.0
5/9/2019	12:00 AM	1:00 AM	62.9	85.2	39.1	72.1	66.0	61.0	59.8	55.7
5/9/2019	1:00 AM	2:00 AM	59.7	77.7	35.5	63.5	62.6	60.3	59.2	54.9
5/9/2019	2:00 AM	3:00 AM	73.1	101.7	36.8	79.5	66.0	62.8	60.5	55.0
5/9/2019	3:00 AM	4:00 AM	65.8	87.5	39.7	73.7	68.9	64.6	63.0	58.5
5/9/2019	4:00 AM	5:00 AM	67.5	84.7	48.4	71.7	70.8	68.4	66.2	63.0
5/9/2019	5:00 AM	6:00 AM	69.4	94.8	50.1	73.6	71.4	69.3	67.4	64.1
5/9/2019	6:00 AM	7:00 AM	68.6	88.7	51.5	70.7	70.1	69.3	68.2	65.9
5/9/2019	7:00 AM	8:00 AM	67.9	84.0	53.3	71.9	70.5	68.9	66.8	65.2
5/9/2019	8:00 AM	9:00 AM	67.7	85.0	52.1	72.1	70.8	67.9	66.7	64.5
5/9/2019	9:00 AM	10:00 AM	67.3	82.5	52.7	71.8	69.4	68.3	65.9	63.9
5/9/2019	10:00 AM	11:00 AM	66.8	86.1	52.2	72.2	69.6	67.4	65.6	63.3

CNEL: 74.6

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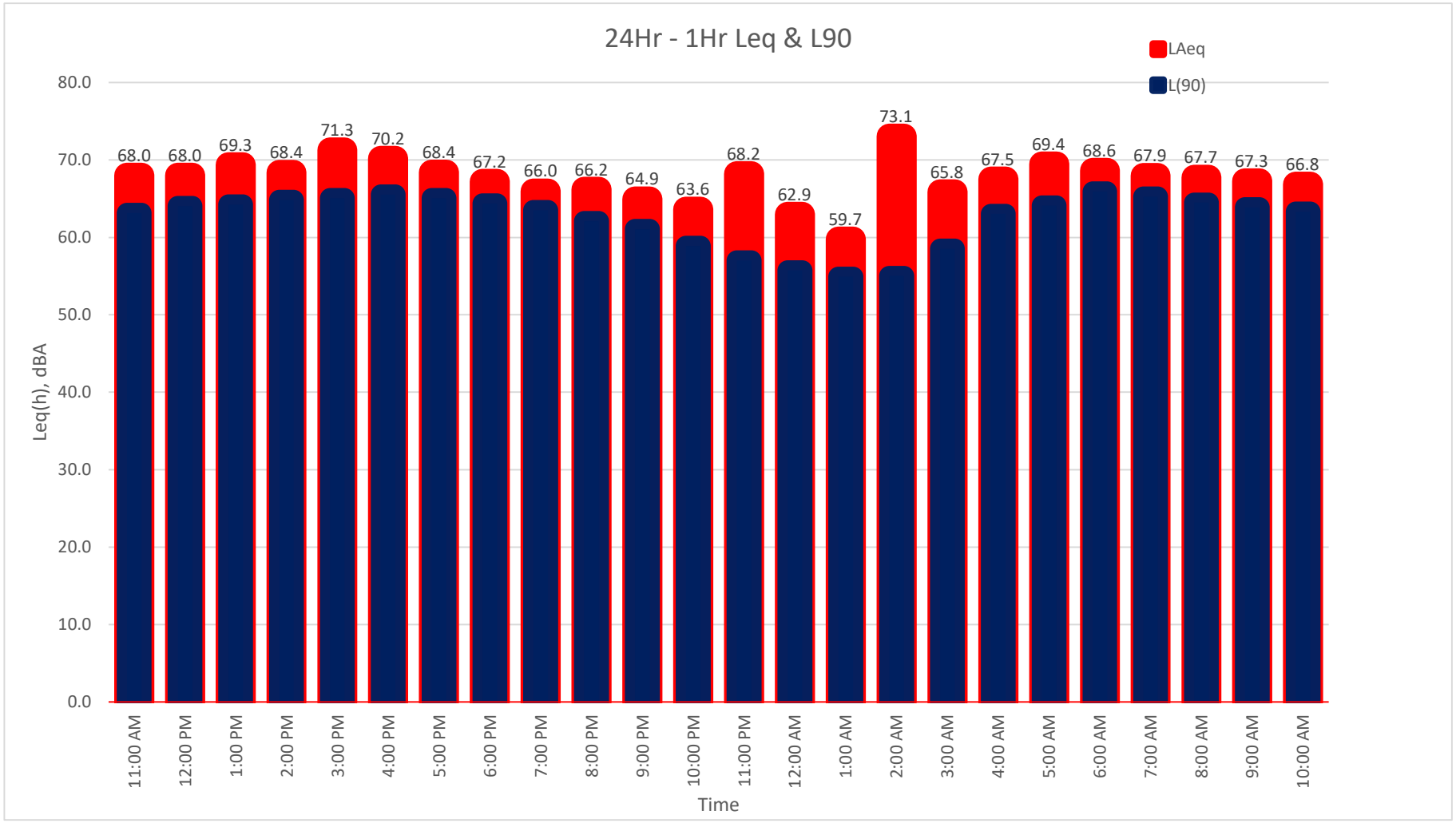
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: State St & Ramona Exp, San Jacinto, CA
Site ID: LT-4



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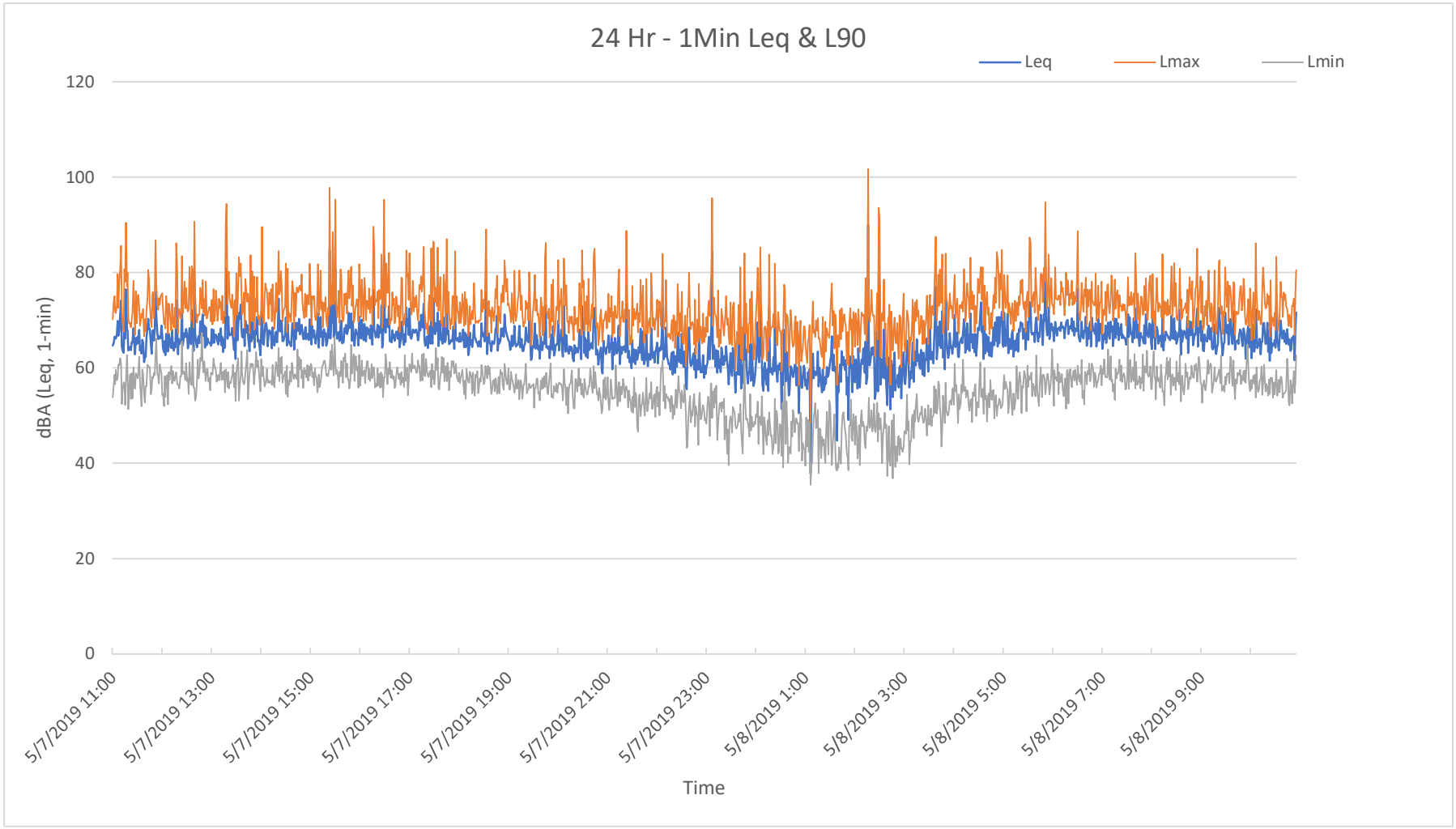
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1

Site Address/Location: State St & Ramona Exp, San Jacinto, CA

Site ID: LT-4



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24-Hour Continuous Noise Measurement Datasheet

Project:	04621801 San Jacinto GP Noise LTMS	**Site Observations:**	Cloudy sky w/ slight rain, Ambient noise consisted of traffic along San Jacinto Ave and 7th St.
Site Address/Location:	San Jacinto Ave & 7th St, San Jacinto, CA		
Date:	5/8/2019 to 5/9/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter: LD 831 **SN:** 3713

Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration

Meteorological Con.: Cloudy sky w/ slight rain

Site ID: LT-5

Site Topo: Flat

Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:

C/L of San Jacinto Ave. is 20ft from meter

C/L of 7th St. Ave. is 135ft from meter

Figure 1: LT-5 Monitoring Location

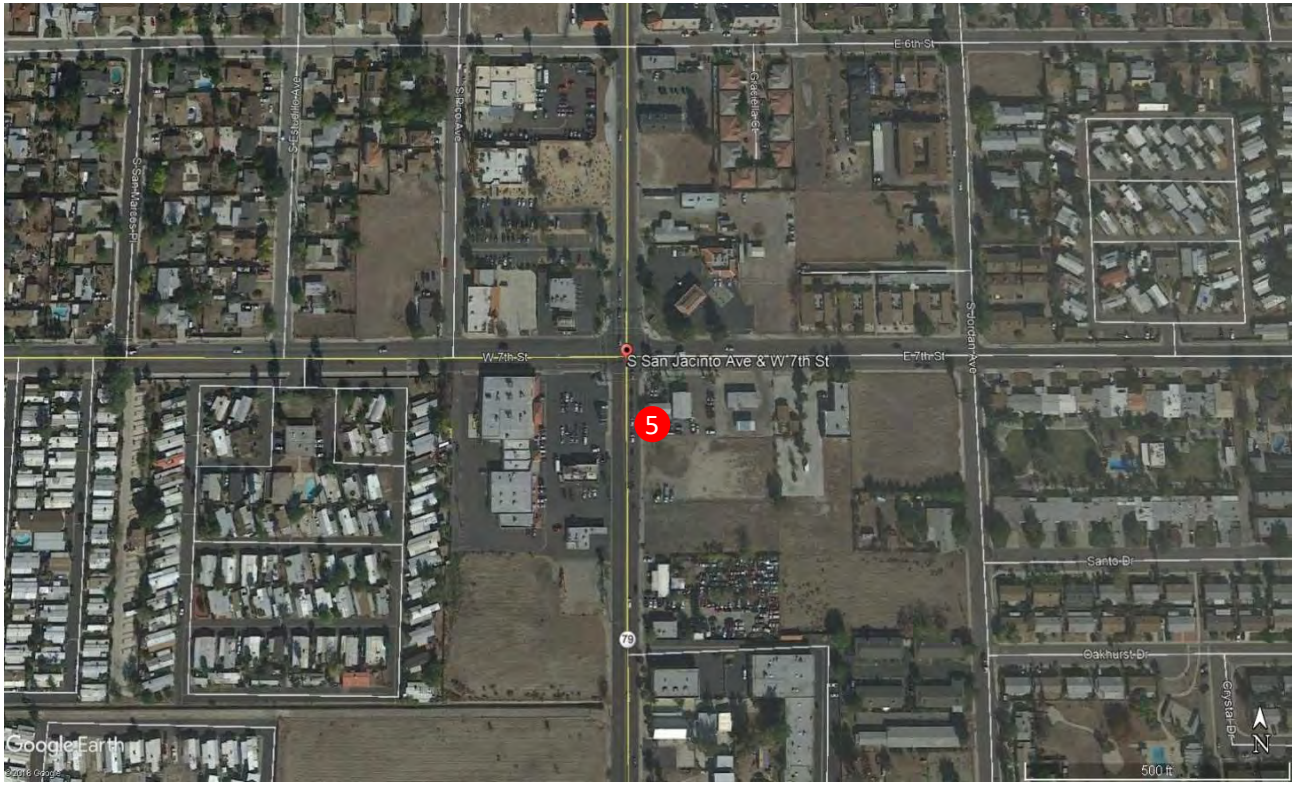

Figure 2: LT-5 Photo



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24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: San Jacinto Ave & 7th St, San Jacinto, CA
Site ID: LT-5

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
5/8/2019	1:00 PM	2:00 PM	65.2	80.6	51.9	68.9	67.6	66.1	64.7	62.2
5/8/2019	2:00 PM	3:00 PM	67.1	89.6	52.2	75.3	68.9	66.7	64.4	61.2
5/8/2019	3:00 PM	4:00 PM	65.9	83.0	53.5	69.7	68.8	66.7	65.0	61.8
5/8/2019	4:00 PM	5:00 PM	66.8	87.1	53.3	71.8	70.7	67.3	65.3	61.9
5/8/2019	5:00 PM	6:00 PM	66.9	90.0	52.5	74.2	70.8	67.0	64.5	61.2
5/8/2019	6:00 PM	7:00 PM	66.2	84.7	52.4	72.7	68.9	66.7	64.6	62.3
5/8/2019	7:00 PM	8:00 PM	65.9	92.3	51.2	71.0	66.7	65.3	63.9	62.3
5/8/2019	8:00 PM	9:00 PM	63.9	82.5	45.7	68.6	66.1	64.4	62.6	60.7
5/8/2019	9:00 PM	10:00 PM	62.3	83.8	46.8	66.9	65.0	62.4	61.2	59.1
5/8/2019	10:00 PM	11:00 PM	62.5	85.4	41.4	69.2	64.8	63.0	60.3	56.2
5/8/2019	11:00 PM	12:00 AM	59.5	77.4	39.5	64.6	62.5	60.6	58.9	54.1
5/9/2019	12:00 AM	1:00 AM	61.3	88.4	35.9	69.0	64.0	59.4	56.9	49.6
5/9/2019	1:00 AM	2:00 AM	61.9	93.5	38.0	66.3	60.8	57.7	54.6	46.0
5/9/2019	2:00 AM	3:00 AM	56.7	82.6	37.1	61.2	59.7	56.7	53.8	41.9
5/9/2019	3:00 AM	4:00 AM	59.3	75.9	39.0	64.3	62.8	61.3	57.4	51.3
5/9/2019	4:00 AM	5:00 AM	59.9	74.1	39.8	63.6	62.9	61.4	59.3	54.4
5/9/2019	5:00 AM	6:00 AM	65.3	86.8	43.6	73.8	69.7	64.6	62.3	57.4
5/9/2019	6:00 AM	7:00 AM	63.8	83.0	45.4	68.0	66.8	64.6	62.9	58.8
5/9/2019	7:00 AM	8:00 AM	65.1	84.5	52.0	69.9	67.4	65.7	64.6	61.5
5/9/2019	8:00 AM	9:00 AM	65.2	86.0	51.1	69.0	67.9	65.8	64.4	62.1
5/9/2019	9:00 AM	10:00 AM	66.3	90.3	53.5	70.5	68.8	66.6	65.1	62.1
5/9/2019	10:00 AM	11:00 AM	65.3	86.4	50.0	69.7	68.9	65.4	64.1	61.3
5/9/2019	11:00 AM	12:00 PM	66.5	90.7	51.3	73.2	69.0	66.2	64.2	61.0
5/9/2019	12:00 PM	1:00 PM	70.2	97.4	51.7	77.4	70.8	67.0	64.4	62.2

CNEL: 69.2

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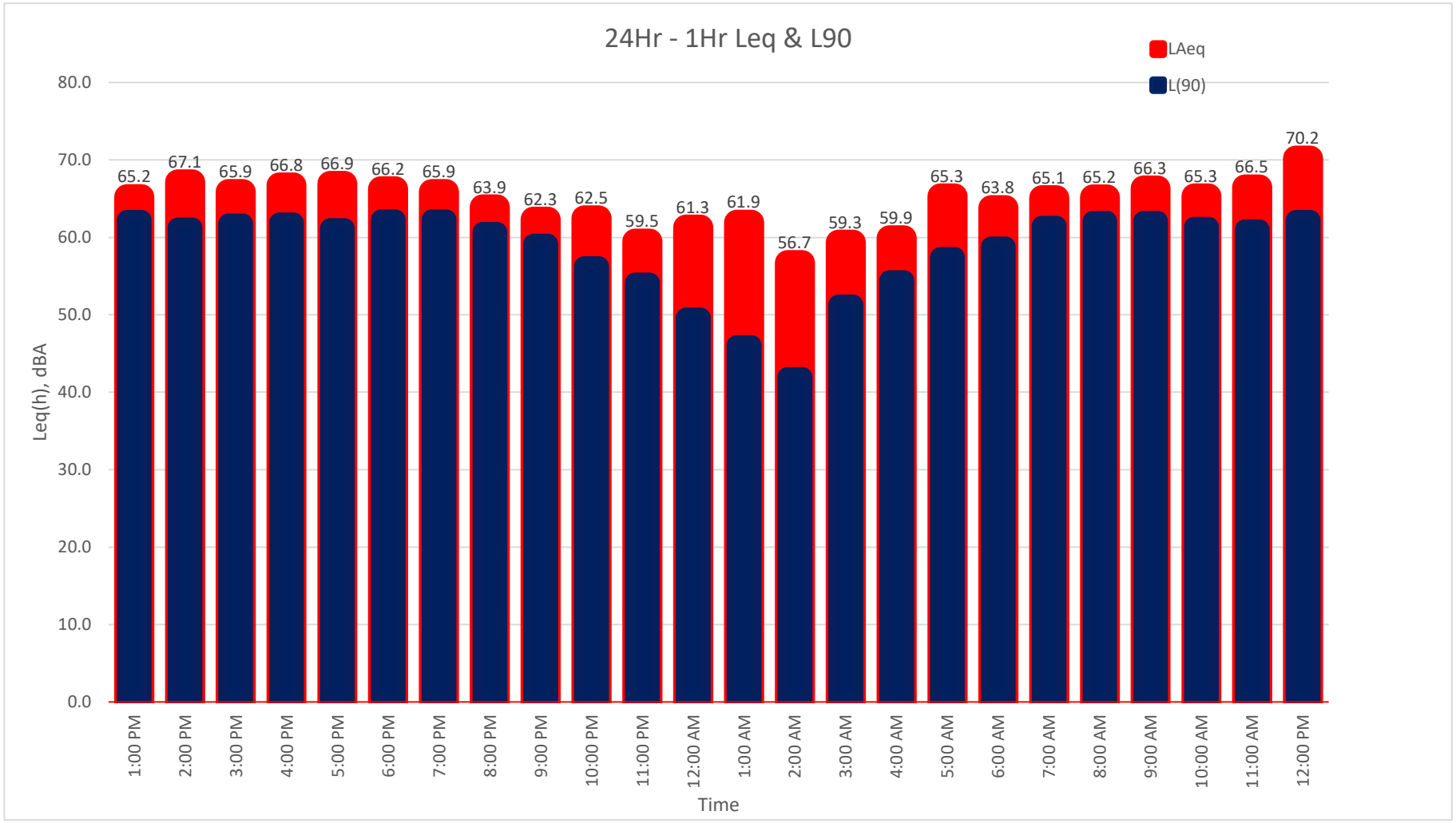
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: San Jacinto Ave & 7th St, San Jacinto, CA
Site ID: LT-5



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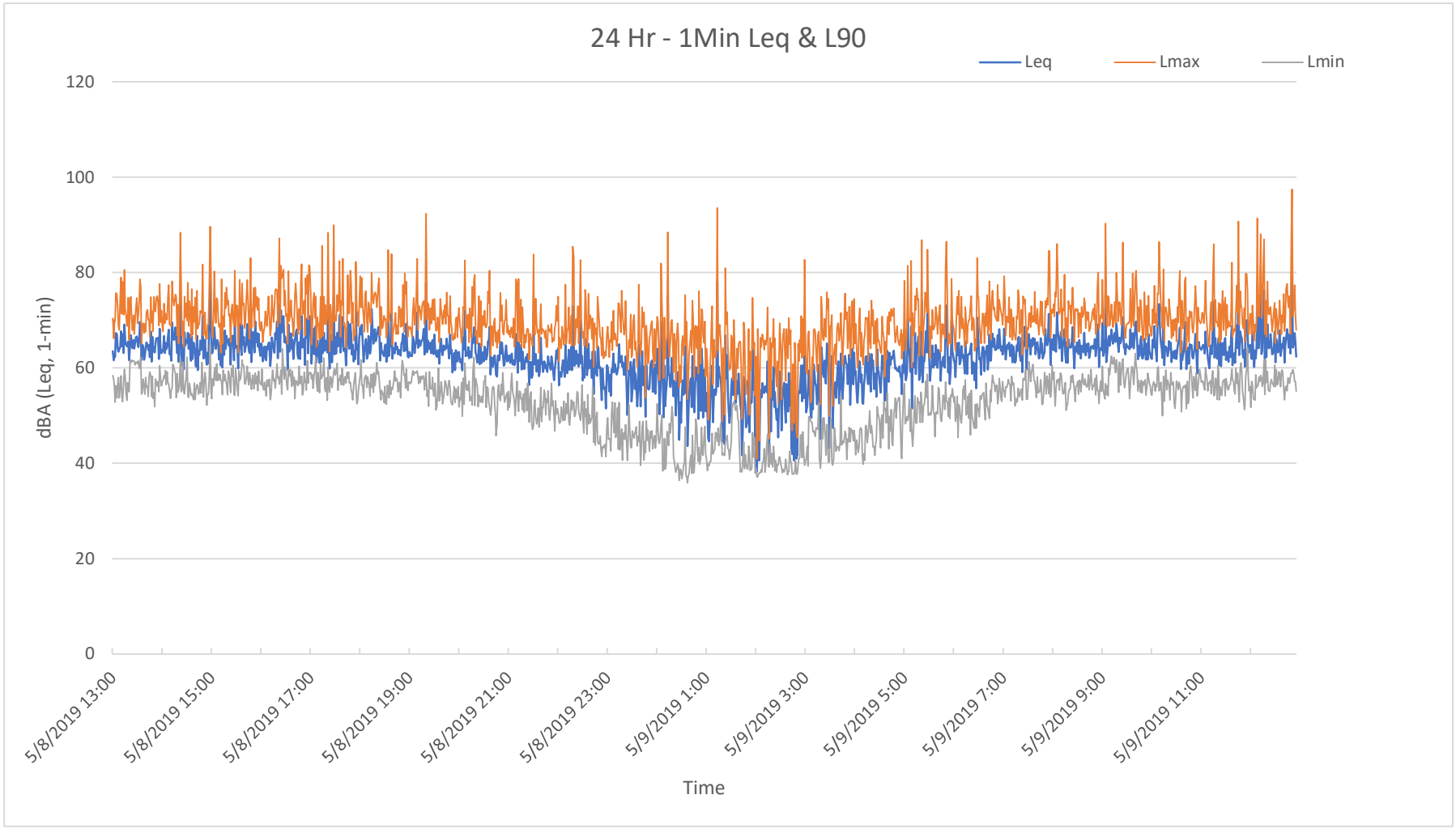
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: San Jacinto Ave & 7th St, San Jacinto, CA
Site ID: LT-5



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24-Hour Continuous Noise Measurement Datasheet

Project: 04621801 San Jacinto GP Noise LTMS
Site Address/Location: Hewitt St & Commonwealth Ave, San Jacinto, CA
Date: 5/1/2019 to 5/2/2019
Field Tech/Engineer: Mike Dickerson, INCE

Site Observations: Cloudy sky w/ slight rain, Ambient noise consisted of traffic along Hewitt St and Commonwealth Ave.

General Location:
Sound Meter: LD 831 **SN:** 3715
Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration
Meteorological Con.: Cloudy sky w/ slight rain
Site ID: LT-6

Site Topo: Flat
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Hewitt St. is 10ft from meter
C/L of Commonwealth Ave. is 140ft from meter

Figure 1: LT-6 Monitoring Location

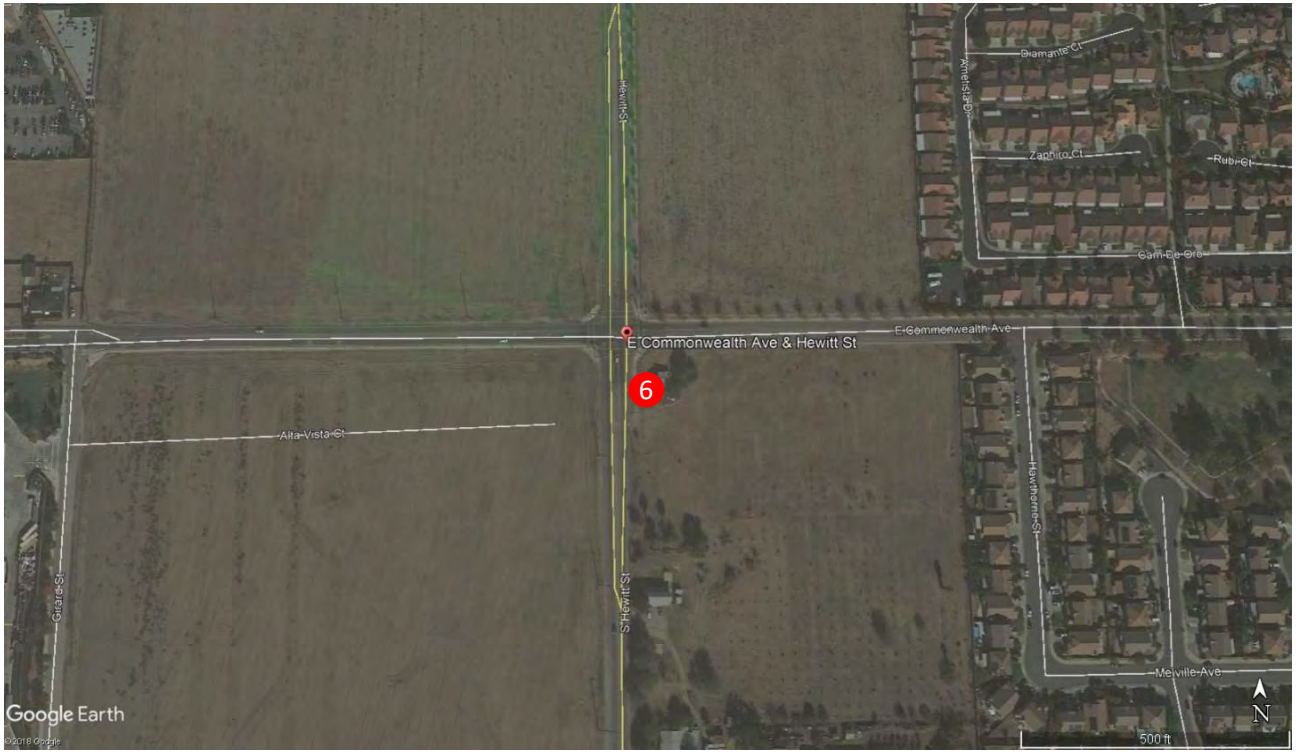

Figure 2: LT-6 Photo



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24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1

Site Address/Location: Hewitt St & Commonwealth Ave, San Jacinto, CA

Site ID: LT-6

Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
5/1/2019	5:00 PM	6:00 PM	82.5	110.9	45.1	86.7	70.7	69.3	67.9	65.1
5/1/2019	6:00 PM	7:00 PM	69.5	84.8	49.5	73.4	71.8	70.4	69.0	66.9
5/1/2019	7:00 PM	8:00 PM	69.0	87.6	45.2	74.3	71.1	69.7	68.4	65.3
5/1/2019	8:00 PM	9:00 PM	69.4	89.2	47.5	73.9	70.9	69.4	68.2	66.0
5/1/2019	9:00 PM	10:00 PM	69.2	85.6	45.8	72.7	71.4	70.1	68.6	66.2
5/1/2019	10:00 PM	11:00 PM	67.8	83.1	44.2	71.7	70.1	68.4	67.3	65.2
5/1/2019	11:00 PM	12:00 AM	67.8	88.0	41.5	73.8	70.4	68.5	66.7	64.3
5/2/2019	12:00 AM	1:00 AM	66.2	88.6	42.1	70.8	68.6	66.9	65.6	62.3
5/2/2019	1:00 AM	2:00 AM	64.7	79.9	38.3	69.7	68.0	65.7	64.0	59.0
5/2/2019	2:00 AM	3:00 AM	63.0	81.2	30.8	67.7	66.5	64.6	62.2	54.4
5/2/2019	3:00 AM	4:00 AM	61.7	77.1	28.0	66.5	65.0	63.6	60.5	47.9
5/2/2019	4:00 AM	5:00 AM	68.3	99.6	28.2	77.8	65.2	61.6	57.5	34.9
5/2/2019	5:00 AM	6:00 AM	58.9	81.2	26.6	65.8	64.4	60.4	52.7	30.5
5/2/2019	6:00 AM	7:00 AM	60.1	80.7	28.2	66.7	65.0	62.2	56.4	32.8
5/2/2019	7:00 AM	8:00 AM	62.7	80.0	31.3	67.8	66.6	64.8	61.4	42.1
5/2/2019	8:00 AM	9:00 AM	65.7	87.4	32.5	69.5	68.5	67.3	65.3	56.1
5/2/2019	9:00 AM	10:00 AM	66.6	86.1	36.3	70.7	69.3	67.0	65.8	60.6
5/2/2019	10:00 AM	11:00 AM	70.9	98.4	42.5	72.6	71.4	69.8	69.0	65.9
5/2/2019	11:00 AM	12:00 PM	68.9	82.2	44.8	71.2	70.8	69.6	68.7	66.6
5/2/2019	12:00 PM	1:00 PM	68.3	83.4	39.2	72.0	70.3	69.2	68.0	65.0
5/2/2019	1:00 PM	2:00 PM	68.1	88.4	43.7	73.2	70.5	68.6	67.0	64.6
5/2/2019	2:00 PM	3:00 PM	67.3	84.2	42.5	70.4	70.0	68.1	66.9	63.8
5/2/2019	3:00 PM	4:00 PM	67.5	79.7	42.2	70.6	69.8	68.2	67.2	64.8
5/2/2019	4:00 PM	5:00 PM	69.0	91.8	46.0	76.2	69.8	68.4	67.0	64.5

CNEL: 73.9

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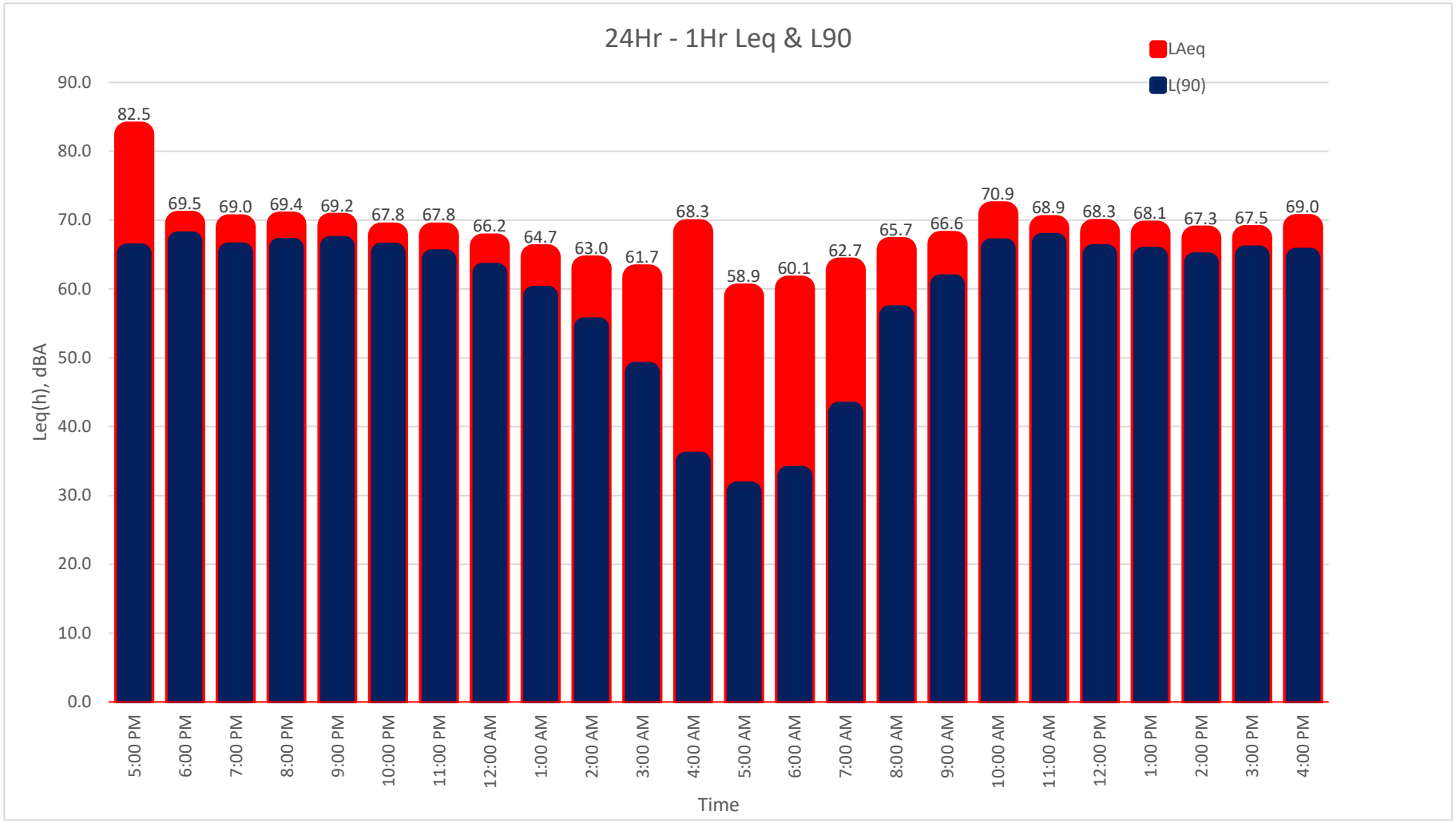
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1
Site Address/Location: Hewitt St & Commonwealth Ave, San Jacinto, CA
Site ID: LT-6



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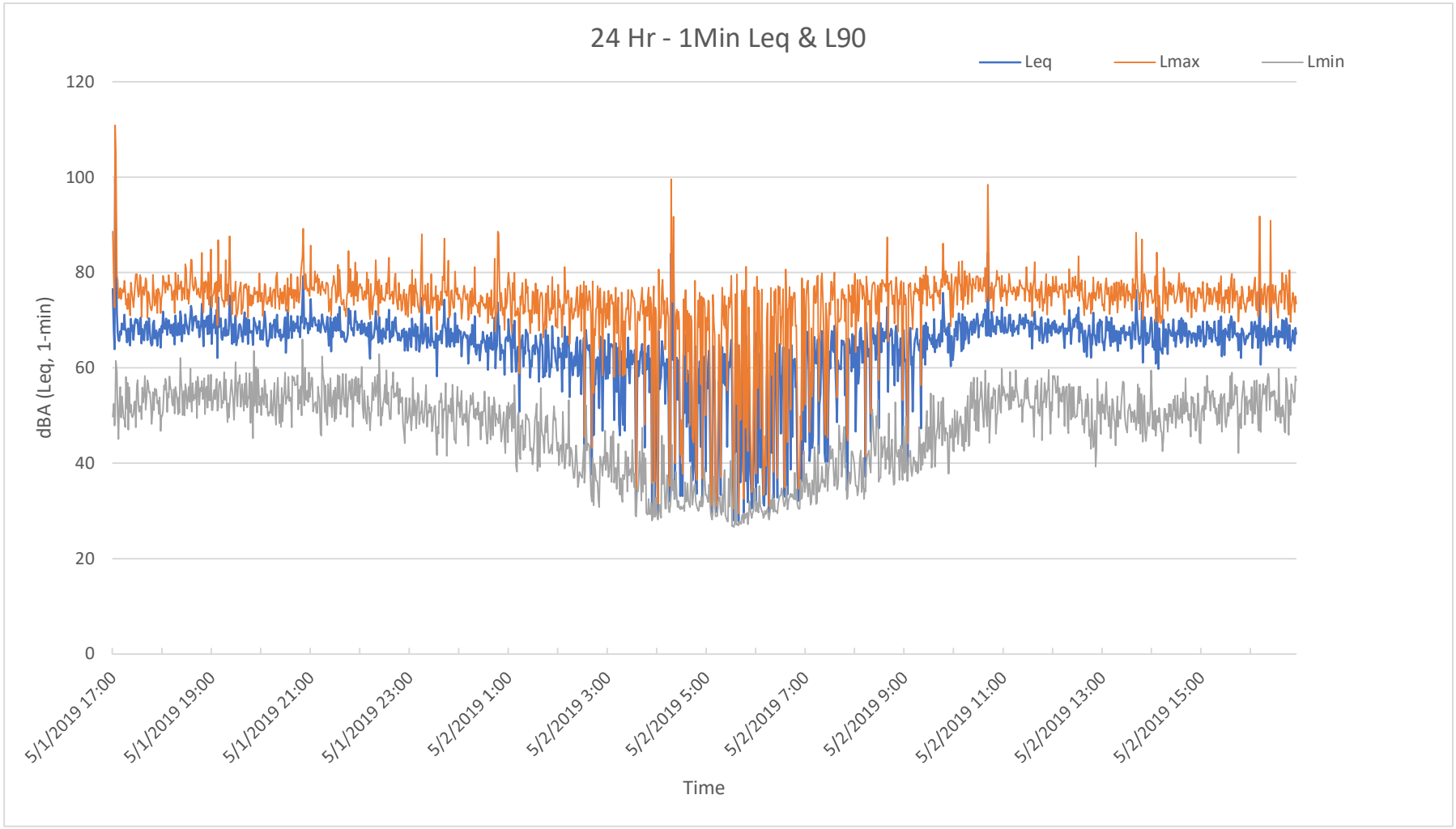
24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621801 San Jacinto GP Noise LTMS **Day:** 1 of 1

Site Address/Location: Hewitt St & Commonwealth Ave, San Jacinto, CA

Site ID: LT-6



Appendix C:
FHWA Roadway Noise Worksheets

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Warren Road
SEGMENT Cottonwood to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,778
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,178

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.2	68.1	64.6	63.3	70.7	71.0
MEDIUM TRUCKS	66.2	64.1	58.2	59.8	67.0	67.1
HEAVY TRUCKS	66.5	64.3	60.1	60.3	67.4	67.6
VEHICULAR NOISE	72.8	70.7	66.6	66.2	73.4	**73.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	117	369	1167	3689
LDN	110	349	1105	3493

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cawston Avenue
SEGMENT Cottonwood to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	3,100
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	310

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.4	55.5	53.2	48.5	56.7	57.2
MEDIUM TRUCKS	54.0	52.3	47.9	45.4	53.5	53.8
HEAVY TRUCKS	48.9	47.3	21.1	41.3	48.9	48.9
VEHICULAR NOISE	59.4	57.6	54.3	50.8	58.8	**59.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	4	13	42	133
LDN	4	12	38	121

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT South of Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	19,520
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,952

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.0	69.1	66.9	61.6	70.0	70.6
MEDIUM TRUCKS	62.7	60.8	58.9	53.0	61.6	62.2
HEAVY TRUCKS	50.9	48.2	23.1	47.0	53.4	53.4
VEHICULAR NOISE	71.6	69.7	67.6	62.3	70.7	**71.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	66	210	664	2100
LDN	59	186	587	1856

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Warren to Cawston
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,300
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	530

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.7	63.5	60.1	58.8	66.1	66.4
MEDIUM TRUCKS	62.2	60.1	54.2	55.8	62.9	63.1
HEAVY TRUCKS	62.8	60.5	56.3	56.5	63.6	63.8
VEHICULAR NOISE	68.6	66.4	62.3	62.0	69.2	**69.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	44	139	441	1393
LDN	42	132	418	1320

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Cawston to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,750
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	675

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.3	63.2	59.7	58.4	65.7	66.0
MEDIUM TRUCKS	62.4	60.4	54.5	56.0	63.2	63.3
HEAVY TRUCKS	63.3	61.1	56.9	57.0	64.2	64.4
VEHICULAR NOISE	68.6	66.5	62.3	62.0	69.3	**69.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	44	141	445	1406
LDN	42	133	422	1334

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,750
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	675

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.3	63.2	59.7	58.4	65.7	66.0
MEDIUM TRUCKS	62.4	60.4	54.5	56.0	63.2	63.3
HEAVY TRUCKS	63.3	61.1	56.9	57.0	64.2	64.4
VEHICULAR NOISE	68.6	66.5	62.3	62.0	69.3	**69.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	44	141	445	1406
LDN	42	133	422	1334

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,750
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	675

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.3	63.2	59.7	58.4	65.7	66.0
MEDIUM TRUCKS	62.4	60.4	54.5	56.0	63.2	63.3
HEAVY TRUCKS	63.3	61.1	56.9	57.0	64.2	64.4
VEHICULAR NOISE	68.6	66.5	62.3	62.0	69.3	**69.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	44	141	445	1406
LDN	42	133	422	1334

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Warren to Cawston
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,800
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	580

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.5	61.6	59.5	54.2	62.6	63.1
MEDIUM TRUCKS	56.0	54.1	52.2	46.2	54.9	55.4
HEAVY TRUCKS	44.5	41.7	16.7	40.6	47.0	47.0
VEHICULAR NOISE	64.3	62.4	60.2	55.0	63.4	**63.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	12	39	123	390
LDN	11	34	109	344

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Cawston to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,800
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	680

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.2	62.3	60.2	54.9	63.3	63.8
MEDIUM TRUCKS	56.6	54.8	52.9	46.9	55.5	56.1
HEAVY TRUCKS	45.2	42.4	17.4	41.3	47.7	47.7
VEHICULAR NOISE	65.0	63.1	60.9	55.7	64.1	**64.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	14	46	144	457
LDN	13	40	128	404

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,550
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	955

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.7	63.8	61.7	56.3	64.8	65.3
MEDIUM TRUCKS	58.1	56.2	54.4	48.4	57.0	57.6
HEAVY TRUCKS	46.7	43.9	18.9	42.7	49.2	49.2
VEHICULAR NOISE	66.4	64.5	62.4	57.2	65.5	**66.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	20	64	203	641
LDN	18	57	179	567

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	13,350
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,335

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.3	67.4	65.3	60.0	68.4	68.9
MEDIUM TRUCKS	61.1	59.2	57.3	51.3	60.0	60.6
HEAVY TRUCKS	49.3	46.5	21.5	45.3	51.8	51.8
VEHICULAR NOISE	69.9	68.0	65.9	60.6	69.0	**69.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	45	144	454	1436
LDN	40	127	401	1270

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT State to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,400
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,840

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.7	68.8	66.7	61.3	69.8	70.3
MEDIUM TRUCKS	62.4	60.6	58.7	52.7	61.4	61.9
HEAVY TRUCKS	50.7	47.9	22.9	46.7	53.2	53.2
VEHICULAR NOISE	71.3	69.4	67.3	62.0	70.4	**71.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	63	198	626	1980
LDN	55	175	553	1750

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT San Jacinto to Hewitt
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	15,150
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,515

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.8	68.0	65.8	60.5	68.9	69.5
MEDIUM TRUCKS	61.6	59.7	57.8	51.9	60.5	61.1
HEAVY TRUCKS	49.8	47.1	22.0	45.9	52.3	52.3
VEHICULAR NOISE	70.5	68.6	66.5	61.2	69.6	**70.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	52	163	515	1630
LDN	46	144	456	1441

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Hewitt to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,550
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	955

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.8	66.0	63.8	58.5	66.9	67.5
MEDIUM TRUCKS	59.6	57.7	55.8	49.9	58.5	59.1
HEAVY TRUCKS	47.8	45.1	20.0	43.9	50.3	50.3
VEHICULAR NOISE	68.5	66.6	64.5	59.2	67.6	**68.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	32	103	325	1027
LDN	29	91	287	908

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Gilman Springs Road
SEGMENT Sanderson to State
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	15,486
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,549

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.2	67.3	65.0	60.3	68.5	69.0
MEDIUM TRUCKS	63.5	61.8	57.3	54.9	63.0	63.3
HEAVY TRUCKS	57.2	55.7	29.4	49.6	57.2	57.2
VEHICULAR NOISE	70.4	68.6	65.6	61.7	69.8	**70.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	53	167	527	1666
LDN	48	151	477	1509

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Hewitt Street
SEGMENT Evans to Park
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	10,700
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,070

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.3	66.3	64.0	59.4	67.6	68.0
MEDIUM TRUCKS	62.6	60.8	56.4	54.0	62.0	62.3
HEAVY TRUCKS	56.3	54.7	28.5	48.7	56.3	56.3
VEHICULAR NOISE	69.5	67.6	64.7	60.7	68.9	**69.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	43	135	426	1347
LDN	39	122	386	1220

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Lyon Avenue
SEGMENT North of Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	300
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	30

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	47.1	45.2	43.0	37.7	46.1	46.7
MEDIUM TRUCKS	41.1	39.3	37.4	31.4	40.0	40.6
HEAVY TRUCKS	30.5	27.7	2.7	26.6	33.0	33.0
VEHICULAR NOISE	48.1	46.2	44.1	38.9	47.3	**47.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	1	3	10
LDN	0	1	3	8

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Lyon Avenue
SEGMENT Ramona Expwy. to Ramona Blvd.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,500
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	450

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.2	63.3	61.2	55.9	64.3	64.8
MEDIUM TRUCKS	56.4	54.5	52.6	46.6	55.3	55.9
HEAVY TRUCKS	44.3	41.5	16.5	40.4	46.8	46.8
VEHICULAR NOISE	65.8	63.9	61.7	56.5	64.9	**65.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	55	174	550
LDN	15	49	154	486

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Lyon Avenue
SEGMENT Ramona Blvd. to De Anza
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,500
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	450

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.2	63.3	61.2	55.9	64.3	64.8
MEDIUM TRUCKS	56.4	54.5	52.6	46.6	55.3	55.9
HEAVY TRUCKS	44.3	41.5	16.5	40.4	46.8	46.8
VEHICULAR NOISE	65.8	63.9	61.7	56.5	64.9	**65.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	55	174	550
LDN	15	49	154	486

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Lyon Avenue
SEGMENT De Anza to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,350
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	535

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.6	64.8	62.6	57.3	65.7	66.3
MEDIUM TRUCKS	57.8	55.9	54.0	48.1	56.7	57.3
HEAVY TRUCKS	45.7	43.0	17.9	41.8	48.2	48.2
VEHICULAR NOISE	67.2	65.3	63.2	57.9	66.3	**66.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	24	76	242	765
LDN	21	68	214	676

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Lyon Avenue
SEGMENT Cottonwood to 7th
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,550
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	555

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.8	64.9	62.8	57.5	65.9	66.4
MEDIUM TRUCKS	58.0	56.1	54.2	48.2	56.9	57.5
HEAVY TRUCKS	45.9	43.1	18.1	41.9	48.4	48.4
VEHICULAR NOISE	67.4	65.5	63.3	58.1	66.5	**67.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	25	79	251	793
LDN	22	70	222	701

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Lyon Avenue
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,700
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	670

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.6	65.7	63.6	58.3	66.7	67.2
MEDIUM TRUCKS	58.8	56.9	55.0	49.1	57.7	58.3
HEAVY TRUCKS	46.7	43.9	18.9	42.8	49.2	49.2
VEHICULAR NOISE	68.2	66.3	64.2	58.9	67.3	**67.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	30	96	303	957
LDN	27	85	268	846

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Main Street
SEGMENT San Jacinto to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,925
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	493

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.8	60.9	58.6	53.9	62.1	62.6
MEDIUM TRUCKS	57.8	56.1	51.7	49.2	57.3	57.6
HEAVY TRUCKS	51.8	50.3	24.1	44.2	51.9	51.9
VEHICULAR NOISE	64.3	62.4	59.4	55.5	63.7	**64.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	13	40	128	404
LDN	12	37	116	367

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Main Street
SEGMENT Ramona Expressway to Soboba
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	8,650
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	865

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.9	63.9	61.6	57.0	65.2	65.6
MEDIUM TRUCKS	60.9	59.1	54.7	52.3	60.3	60.6
HEAVY TRUCKS	54.9	53.3	27.1	47.3	54.9	54.9
VEHICULAR NOISE	67.3	65.4	62.4	58.6	66.7	**67.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	26	81	257	812
LDN	23	74	233	737

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Menlo Avenue
SEGMENT Sante Fe to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	8,200
SPEED =	35
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	820

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.3	61.3	59.0	54.4	62.6	63.1
MEDIUM TRUCKS	59.0	57.3	52.9	50.4	58.5	58.8
HEAVY TRUCKS	53.4	51.9	25.6	45.8	53.4	53.4
VEHICULAR NOISE	65.0	63.1	60.0	56.3	64.4	**64.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	15	48	150	475
LDN	14	43	137	433

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Palm Avenue
SEGMENT Ramona Blvd to 7th
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,200
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	420

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.7	60.8	58.5	53.8	62.0	62.5
MEDIUM TRUCKS	57.7	56.0	51.5	49.1	57.2	57.5
HEAVY TRUCKS	51.7	50.2	24.0	44.1	51.7	51.8
VEHICULAR NOISE	64.2	62.3	59.3	55.4	63.5	**64.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	12	39	125	394
LDN	11	36	113	358

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT West of Warren
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,200
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,220

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.3	70.8	68.7	67.1	74.2	74.5
MEDIUM TRUCKS	64.4	62.0	57.7	58.9	65.8	65.9
HEAVY TRUCKS	63.5	61.0	55.0	58.3	65.1	65.2
VEHICULAR NOISE	74.2	71.7	69.2	68.2	75.2	**75.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	177	561	1774	5609
LDN	166	525	1662	5254

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Warren to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	23,750
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,375

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.4	73.9	71.8	70.2	77.3	77.6
MEDIUM TRUCKS	66.5	64.1	59.8	61.0	67.9	68.1
HEAVY TRUCKS	65.1	62.7	56.6	59.9	66.7	66.8
VEHICULAR NOISE	77.1	74.6	72.2	71.0	78.1	**78.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	342	1082	3420	10816
LDN	320	1011	3199	10115

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	27,050
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,705

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.2	75.8	73.6	72.1	79.1	79.5
MEDIUM TRUCKS	68.4	66.0	61.7	62.9	69.8	69.9
HEAVY TRUCKS	67.0	64.5	58.5	61.8	68.6	68.7
VEHICULAR NOISE	79.0	76.5	74.0	72.9	79.9	**80.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	527	1666	5269	16662
LDN	493	1558	4927	15582

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,050
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,505

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.8	73.3	71.2	69.6	76.7	77.0
MEDIUM TRUCKS	67.0	64.5	60.2	61.4	68.3	68.5
HEAVY TRUCKS	66.0	63.5	57.5	60.8	67.6	67.7
VEHICULAR NOISE	76.7	74.3	71.7	70.7	77.7	**78.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	317	1002	3168	10017
LDN	297	938	2967	9383

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT State to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	20,150
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,015

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.6	71.1	69.0	67.4	74.5	74.8
MEDIUM TRUCKS	64.7	62.3	58.0	59.1	66.0	66.2
HEAVY TRUCKS	63.7	61.3	55.2	58.6	65.3	65.4
VEHICULAR NOISE	74.5	72.0	69.5	68.5	75.5	**75.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	188	596	1884	5957
LDN	176	558	1765	5580

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT San Jacinto to Main/Lake Park
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	10,850
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,085

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.0	70.5	68.4	66.8	73.9	74.2
MEDIUM TRUCKS	63.1	60.7	56.4	57.6	64.5	64.6
HEAVY TRUCKS	61.7	59.3	53.2	56.5	63.3	63.4
VEHICULAR NOISE	73.7	71.2	68.7	67.6	74.7	**74.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	156	494	1563	4941
LDN	146	462	1461	4621

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Main/Lake Park to 7th
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,000
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,100

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.3	67.9	65.7	64.2	71.2	71.6
MEDIUM TRUCKS	61.5	59.1	54.8	55.9	62.8	63.0
HEAVY TRUCKS	60.5	58.1	52.0	55.3	62.1	62.2
VEHICULAR NOISE	71.3	68.8	66.2	65.2	72.3	**72.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	90	284	899	2842
LDN	84	266	842	2662

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,000
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,100

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.3	67.9	65.7	64.2	71.2	71.6
MEDIUM TRUCKS	61.5	59.1	54.8	55.9	62.8	63.0
HEAVY TRUCKS	60.5	58.1	52.0	55.3	62.1	62.2
VEHICULAR NOISE	71.3	68.8	66.2	65.2	72.3	**72.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	90	284	899	2842
LDN	84	266	842	2662

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Esplanade to Hemet
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	16,250
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,625

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.679	0.104	0.217	0.968
MEDIUM TRUCKS	0.685	0.064	0.251	0.024
HEAVY TRUCKS	0.684	0.042	0.274	0.008

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.9	69.5	67.3	65.8	72.8	73.2
MEDIUM TRUCKS	63.1	60.6	56.4	57.5	64.4	64.6
HEAVY TRUCKS	62.1	59.7	53.6	56.9	63.7	63.8
VEHICULAR NOISE	72.9	70.4	67.8	66.8	73.9	**74.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	130	411	1298	4106
LDN	122	385	1216	3846

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT Main/Ramona Blvd. to 7th
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	12,650
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,265

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.0	65.1	63.0	57.7	66.1	66.6
MEDIUM TRUCKS	59.4	57.6	55.7	49.7	58.3	58.9
HEAVY TRUCKS	48.0	45.2	20.2	44.1	50.5	50.5
VEHICULAR NOISE	67.8	65.9	63.7	58.5	66.9	**67.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	27	87	275	869
LDN	24	77	243	768

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,600
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,860

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.3	67.4	65.2	59.9	68.3	68.9
MEDIUM TRUCKS	61.7	59.8	57.9	52.0	60.6	61.2
HEAVY TRUCKS	50.2	47.5	22.5	46.3	52.8	52.8
VEHICULAR NOISE	70.0	68.1	66.0	60.7	69.1	**69.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	46	146	462	1462
LDN	41	129	409	1292

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT South of Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	21,546
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,155

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.9	68.0	65.9	60.6	69.0	69.5
MEDIUM TRUCKS	62.3	60.5	58.6	52.6	61.2	61.8
HEAVY TRUCKS	50.9	48.1	23.1	46.9	53.4	53.4
VEHICULAR NOISE	70.7	68.8	66.6	61.4	69.8	**70.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	54	169	535	1693
LDN	47	150	473	1497

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT North of Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	13,000
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,300

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.3	69.2	65.7	64.4	71.8	72.1
MEDIUM TRUCKS	67.3	65.2	59.4	60.9	68.1	68.2
HEAVY TRUCKS	67.6	65.4	61.2	61.4	68.5	68.7
VEHICULAR NOISE	73.9	71.8	67.7	67.3	74.6	**74.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	151	476	1507	4765
LDN	143	451	1427	4512

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT Ramona Expwy. to Ramona Blvd.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	23,515
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,352

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.9	71.8	68.3	67.0	74.4	74.6
MEDIUM TRUCKS	69.9	67.8	61.9	63.5	70.7	70.8
HEAVY TRUCKS	70.2	68.0	63.8	64.0	71.1	71.3
VEHICULAR NOISE	76.5	74.4	70.3	69.9	77.1	**77.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	273	862	2725	8619
LDN	258	816	2581	8161

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT Ramona Blvd to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	23,515
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,352

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.9	71.8	68.3	67.0	74.4	74.6
MEDIUM TRUCKS	69.9	67.8	61.9	63.5	70.7	70.8
HEAVY TRUCKS	70.2	68.0	63.8	64.0	71.1	71.3
VEHICULAR NOISE	76.5	74.4	70.3	69.9	77.1	**77.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	273	862	2725	8619
LDN	258	816	2581	8161

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT Cottonwood to 7th
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	28,500
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,850

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.8	72.6	69.1	67.9	75.2	75.5
MEDIUM TRUCKS	70.7	68.7	62.8	64.3	71.5	71.6
HEAVY TRUCKS	71.0	68.8	64.6	64.8	71.9	72.1
VEHICULAR NOISE	77.4	75.2	71.1	70.7	78.0	**78.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	330	1045	3303	10446
LDN	313	989	3128	9891

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,700
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	670

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.5	66.3	62.9	61.6	68.9	69.2
MEDIUM TRUCKS	64.4	62.4	56.5	58.1	65.2	65.4
HEAVY TRUCKS	64.7	62.5	58.3	58.5	65.6	65.8
VEHICULAR NOISE	71.1	68.9	64.8	64.4	71.7	**71.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	78	246	777	2456
LDN	74	233	735	2325

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Santa Fe
SEGMENT Esplande to Menlo
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	7,800
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	780

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.7	62.8	60.5	55.8	64.0	64.5
MEDIUM TRUCKS	59.7	58.0	53.6	51.1	59.2	59.5
HEAVY TRUCKS	53.7	52.2	26.0	46.1	53.8	53.8
VEHICULAR NOISE	66.2	64.3	61.3	57.4	65.6	**66.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	20	63	198	626
LDN	18	57	180	568

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Soboba Road
SEGMENT State to Main
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,300
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	630

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.8	65.9	63.6	58.9	67.1	67.6
MEDIUM TRUCKS	60.9	59.2	54.8	52.4	60.4	60.7
HEAVY TRUCKS	54.1	52.6	26.3	46.5	54.1	54.1
VEHICULAR NOISE	68.7	66.9	64.1	60.0	68.1	**68.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	36	113	358	1131
LDN	32	102	323	1022

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT West of Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,650
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	965

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.1	65.2	62.9	58.2	66.4	66.9
MEDIUM TRUCKS	61.4	59.7	55.3	52.8	60.9	61.2
HEAVY TRUCKS	55.1	53.6	27.4	47.5	55.2	55.2
VEHICULAR NOISE	68.4	66.5	63.6	59.6	67.7	**68.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	33	104	328	1038
LDN	30	94	297	940

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,300
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	630

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.0	64.0	61.7	57.1	65.3	65.7
MEDIUM TRUCKS	60.3	58.5	54.1	51.7	59.7	60.0
HEAVY TRUCKS	54.0	52.4	26.2	46.4	54.0	54.0
VEHICULAR NOISE	67.2	65.3	62.4	58.4	66.6	**67.0**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	25	79	251	793
LDN	23	72	227	718

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,650
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	965

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.2	65.3	63.0	58.3	66.5	67.0
MEDIUM TRUCKS	61.5	59.8	55.4	52.9	61.0	61.3
HEAVY TRUCKS	55.2	53.7	27.5	47.6	55.2	55.2
VEHICULAR NOISE	68.5	66.6	63.7	59.7	67.8	**68.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	34	106	336	1061
LDN	30	96	304	961

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT State to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,200
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,120

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.4	61.5	59.2	54.5	62.7	63.2
MEDIUM TRUCKS	60.0	58.3	53.9	51.4	59.5	59.8
HEAVY TRUCKS	54.8	53.3	27.1	47.2	54.9	54.9
VEHICULAR NOISE	65.4	63.6	60.3	56.7	64.8	**65.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	53	167	527
LDN	15	48	152	482

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT San Jacinto to Hewitt
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	8,500
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	24
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	850

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	48.6	- -
MEDIUM TRUCKS=	4.00	48.5	- -
HEAVY TRUCKS =	8.01	48.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.6	59.7	57.4	52.7	60.9	61.4
MEDIUM TRUCKS	58.2	56.5	52.1	49.6	57.7	58.0
HEAVY TRUCKS	53.1	51.5	25.3	45.5	53.1	53.1
VEHICULAR NOISE	63.6	61.8	58.5	55.0	63.1	**63.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	11	35	111	350
LDN	10	32	101	320

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Hewitt to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,550
SPEED =	25
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	955

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.771	0.113	0.116	0.958
MEDIUM TRUCKS	0.803	0.073	0.124	0.038
HEAVY TRUCKS	0.844	0.000	0.156	0.003

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.7	57.8	55.5	50.8	59.0	59.5
MEDIUM TRUCKS	57.4	55.7	51.2	48.8	56.9	57.2
HEAVY TRUCKS	52.7	51.2	25.0	45.1	52.8	52.8
VEHICULAR NOISE	62.2	60.4	56.9	53.6	61.7	**62.1**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	25	80	254
LDN	7	23	74	233

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT College Entrance to Community College
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,950
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,495

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.1	67.2	65.1	59.8	68.2	68.7
MEDIUM TRUCKS	60.9	59.0	57.1	51.1	59.8	60.4
HEAVY TRUCKS	49.1	46.3	21.3	45.1	51.6	51.6
VEHICULAR NOISE	69.8	67.9	65.7	60.5	68.9	**69.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	43	137	435	1375
LDN	38	122	384	1215

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Community College to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	16,650
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,665

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.6	67.7	65.5	60.2	68.7	69.2
MEDIUM TRUCKS	61.3	59.4	57.6	51.6	60.2	60.8
HEAVY TRUCKS	49.6	46.8	21.8	45.6	52.1	52.1
VEHICULAR NOISE	70.2	68.3	66.2	60.9	69.3	**69.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	48	153	484	1531
LDN	43	135	428	1353

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Ramona Expwy. to Ramona Blvd.
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,050
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,205

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.5	69.6	67.4	62.1	70.6	71.1
MEDIUM TRUCKS	63.2	61.4	59.5	53.5	62.1	62.7
HEAVY TRUCKS	51.5	48.7	23.7	47.5	54.0	54.0
VEHICULAR NOISE	72.1	70.2	68.1	62.8	71.2	**71.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	75	237	750	2372
LDN	66	210	663	2097

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Ramona Blvd. to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	19,650
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,965

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.0	69.1	66.9	61.6	70.1	70.6
MEDIUM TRUCKS	62.7	60.8	59.0	53.0	61.6	62.2
HEAVY TRUCKS	51.0	48.2	23.2	47.0	53.5	53.5
VEHICULAR NOISE	71.6	69.7	67.6	62.3	70.7	**71.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	67	211	669	2114
LDN	59	187	591	1869

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Cottonwood to 7th
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,550
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	555

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.5	63.6	61.5	56.1	64.6	65.1
MEDIUM TRUCKS	57.2	55.4	53.5	47.5	56.1	56.7
HEAVY TRUCKS	45.5	42.7	17.7	41.5	48.0	48.0
VEHICULAR NOISE	66.1	64.2	62.1	56.8	65.2	**65.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	19	60	189	597
LDN	17	53	167	528

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,700
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	670

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.777	0.119	0.105	0.978
MEDIUM TRUCKS	0.778	0.126	0.096	0.022
HEAVY TRUCKS	0.636	0.000	0.364	0.001

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	64.4	62.3	57.0	65.4	65.9
MEDIUM TRUCKS	58.1	56.2	54.3	48.3	57.0	57.6
HEAVY TRUCKS	46.3	43.5	18.5	42.3	48.8	48.8
VEHICULAR NOISE	66.9	65.1	62.9	57.7	66.1	**66.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	23	72	228	721
LDN	20	64	201	637

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Warren Road
SEGMENT Ramona Expwy. to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: Existing

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,778
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	12
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,178

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.734	0.082	0.184	0.901
MEDIUM TRUCKS	0.745	0.048	0.207	0.069
HEAVY TRUCKS	0.718	0.068	0.214	0.030

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	49.7	- -
MEDIUM TRUCKS=	4.00	49.6	- -
HEAVY TRUCKS =	8.01	49.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.2	68.1	64.6	63.3	70.7	71.0
MEDIUM TRUCKS	66.2	64.1	58.2	59.8	67.0	67.1
HEAVY TRUCKS	66.5	64.3	60.1	60.3	67.4	67.6
VEHICULAR NOISE	72.8	70.7	66.6	66.2	73.4	**73.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	117	369	1167	3689
LDN	110	349	1105	3493

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,667
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	967

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.1	58.8	52.8	61.2	61.9
MEDIUM TRUCKS	57.9	53.9	46.1	55.3	61.5	61.5
HEAVY TRUCKS	65.8	61.8	54.0	63.2	69.4	69.4
VEHICULAR NOISE	67.8	64.4	60.2	64.2	70.5	**70.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	184	582	1840
LDN	57	179	567	1795

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Warren to Cawston
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	12,438
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,244

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.7	66.7	65.4	59.4	67.8	68.4
MEDIUM TRUCKS	62.1	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	68.9	64.9	57.1	66.3	72.5	72.5
VEHICULAR NOISE	72.3	69.3	66.1	67.8	74.4	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	143	452	1430	4522
LDN	137	435	1374	4346

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,568
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,257

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.8	71.8	70.5	64.5	72.9	73.5
MEDIUM TRUCKS	66.1	62.1	54.3	63.5	69.7	69.7
HEAVY TRUCKS	72.3	68.3	60.5	69.7	75.9	75.9
VEHICULAR NOISE	76.5	73.7	71.0	71.6	78.3	**78.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	354	1121	3544	11206
LDN	337	1066	3372	10665

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,667
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	967

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.1	58.8	52.8	61.2	61.9
MEDIUM TRUCKS	57.9	53.9	46.1	55.3	61.5	61.5
HEAVY TRUCKS	65.8	61.8	54.0	63.2	69.4	69.4
VEHICULAR NOISE	67.8	64.4	60.2	64.2	70.5	**70.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	184	582	1840
LDN	57	179	567	1795

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT State to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,667
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	967

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.1	58.8	52.8	61.2	61.9
MEDIUM TRUCKS	57.9	53.9	46.1	55.3	61.5	61.5
HEAVY TRUCKS	65.8	61.8	54.0	63.2	69.4	69.4
VEHICULAR NOISE	67.8	64.4	60.2	64.2	70.5	**70.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	184	582	1840
LDN	57	179	567	1795

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT San Jacinto to Hewitt
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,667
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	967

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.1	58.8	52.8	61.2	61.9
MEDIUM TRUCKS	57.9	53.9	46.1	55.3	61.5	61.5
HEAVY TRUCKS	65.8	61.8	54.0	63.2	69.4	69.4
VEHICULAR NOISE	67.8	64.4	60.2	64.2	70.5	**70.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	184	582	1840
LDN	57	179	567	1795

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Hewitt to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,667
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	967

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.1	58.8	52.8	61.2	61.9
MEDIUM TRUCKS	57.9	53.9	46.1	55.3	61.5	61.5
HEAVY TRUCKS	65.8	61.8	54.0	63.2	69.4	69.4
VEHICULAR NOISE	67.8	64.4	60.2	64.2	70.5	**70.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	184	582	1840
LDN	57	179	567	1795

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Community College to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	26,714
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,671

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.0	70.0	68.7	62.7	71.1	71.8
MEDIUM TRUCKS	65.5	61.5	53.7	62.9	69.1	69.1
HEAVY TRUCKS	72.2	68.2	60.4	69.6	75.8	75.8
VEHICULAR NOISE	75.6	72.6	69.5	71.1	77.7	**77.9**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	307	971	3071	9712
LDN	295	933	2952	9334

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Ramona Expwy. to Ramona Blvd.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,777
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,778

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.6	71.5	70.3	64.2	72.6	73.3
MEDIUM TRUCKS	67.0	63.0	55.2	64.4	70.6	70.6
HEAVY TRUCKS	73.7	69.7	61.9	71.1	77.3	77.3
VEHICULAR NOISE	77.1	74.1	71.0	72.7	79.2	**79.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	434	1373	4343	13733
LDN	417	1320	4174	13200

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Ramona Blvd. to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,777
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,778

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.6	71.5	70.3	64.2	72.6	73.3
MEDIUM TRUCKS	67.0	63.0	55.2	64.4	70.6	70.6
HEAVY TRUCKS	73.7	69.7	61.9	71.1	77.3	77.3
VEHICULAR NOISE	77.1	74.1	71.0	72.7	79.2	**79.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	434	1373	4343	13733
LDN	417	1320	4174	13200

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Cottonwood to 7th
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,777
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,778

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.6	71.5	70.3	64.2	72.6	73.3
MEDIUM TRUCKS	67.0	63.0	55.2	64.4	70.6	70.6
HEAVY TRUCKS	73.7	69.7	61.9	71.1	77.3	77.3
VEHICULAR NOISE	77.1	74.1	71.0	72.7	79.2	**79.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	434	1373	4343	13733
LDN	417	1320	4174	13200

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,777
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,778

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.6	71.5	70.3	64.2	72.6	73.3
MEDIUM TRUCKS	67.0	63.0	55.2	64.4	70.6	70.6
HEAVY TRUCKS	73.7	69.7	61.9	71.1	77.3	77.3
VEHICULAR NOISE	77.1	74.1	71.0	72.7	79.2	**79.4**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	434	1373	4343	13733
LDN	417	1320	4174	13200

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY State Street
SEGMENT Esplande to Crow's Nest
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,912
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,591

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.9	69.9	68.6	62.6	71.0	71.6
MEDIUM TRUCKS	65.3	61.4	53.6	62.8	68.9	69.0
HEAVY TRUCKS	72.1	68.1	60.3	69.5	75.7	75.7
VEHICULAR NOISE	75.4	72.5	69.3	71.0	77.6	**77.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	298	942	2979	9420
LDN	286	905	2863	9054

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Warren Road
SEGMENT Ramona Expwy. to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,372
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	537

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.6	65.6	64.3	58.2	66.7	67.3
MEDIUM TRUCKS	59.9	55.9	48.1	57.3	63.5	63.5
HEAVY TRUCKS	66.0	62.1	54.3	63.5	69.6	69.7
VEHICULAR NOISE	70.3	67.5	64.8	65.4	72.1	**72.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	84	267	844	2667
LDN	80	254	803	2539

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Warren Road
SEGMENT Cottonwood to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	5,372
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	537

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.6	65.6	64.3	58.2	66.7	67.3
MEDIUM TRUCKS	59.9	55.9	48.1	57.3	63.5	63.5
HEAVY TRUCKS	66.0	62.1	54.3	63.5	69.6	69.7
VEHICULAR NOISE	70.3	67.5	64.8	65.4	72.1	**72.3**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	84	267	844	2667
LDN	80	254	803	2539

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Cawston to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	12,438
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,244

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.7	66.7	65.4	59.4	67.8	68.4
MEDIUM TRUCKS	62.1	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	68.9	64.9	57.1	66.3	72.5	72.5
VEHICULAR NOISE	72.3	69.3	66.1	67.8	74.4	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	143	452	1430	4522
LDN	137	435	1374	4346

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	12,438
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,244

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.7	66.7	65.4	59.4	67.8	68.4
MEDIUM TRUCKS	62.1	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	68.9	64.9	57.1	66.3	72.5	72.5
VEHICULAR NOISE	72.3	69.3	66.1	67.8	74.4	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	143	452	1430	4522
LDN	137	435	1374	4346

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Cottonwood Avenue
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	12,438
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,244

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.7	66.7	65.4	59.4	67.8	68.4
MEDIUM TRUCKS	62.1	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	68.9	64.9	57.1	66.3	72.5	72.5
VEHICULAR NOISE	72.3	69.3	66.1	67.8	74.4	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	143	452	1430	4522
LDN	137	435	1374	4346

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Warren to Cawston
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Cawston to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT State to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT San Jacinto to Hewitt
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Esplanade Avenue
SEGMENT Hewitt to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	14,997
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,500

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.1	64.8	58.7	67.1	67.8
MEDIUM TRUCKS	62.2	58.2	50.4	59.6	65.8	65.8
HEAVY TRUCKS	69.2	65.2	57.5	66.7	72.8	72.9
VEHICULAR NOISE	72.2	69.1	65.6	68.0	74.5	**74.6**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	145	460	1454	4599
LDN	140	444	1405	4443

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Main Street
SEGMENT San Jacinto to Ramona Expwy.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,986
SPEED =	40
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,899

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.1	67.1	65.8	59.7	68.2	68.8
MEDIUM TRUCKS	63.2	59.2	51.4	60.6	66.8	66.8
HEAVY TRUCKS	70.2	66.3	58.5	67.7	73.8	73.9
VEHICULAR NOISE	73.2	70.1	66.7	69.0	75.5	**75.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	184	582	1841	5822
LDN	178	562	1779	5624

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT West of Warren
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	34,141
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,414

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	79.0	77.0	75.7	69.7	78.1	78.7
MEDIUM TRUCKS	70.3	66.4	58.6	67.8	73.9	74.0
HEAVY TRUCKS	76.0	72.1	64.3	73.5	79.6	79.7
VEHICULAR NOISE	81.2	78.5	76.1	75.8	82.6	**82.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	962	3044	9625	30436
LDN	907	2869	9074	28695

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Warren to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	34,141
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,414

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	79.0	77.0	75.7	69.7	78.1	78.7
MEDIUM TRUCKS	70.3	66.4	58.6	67.8	73.9	74.0
HEAVY TRUCKS	76.0	72.1	64.3	73.5	79.6	79.7
VEHICULAR NOISE	81.2	78.5	76.1	75.8	82.6	**82.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	962	3044	9625	30436
LDN	907	2869	9074	28695

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Sanderson to Lyon
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	34,141
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,414

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	79.0	77.0	75.7	69.7	78.1	78.7
MEDIUM TRUCKS	70.3	66.4	58.6	67.8	73.9	74.0
HEAVY TRUCKS	76.0	72.1	64.3	73.5	79.6	79.7
VEHICULAR NOISE	81.2	78.5	76.1	75.8	82.6	**82.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	962	3044	9625	30436
LDN	907	2869	9074	28695

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Lyon to State
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	34,141
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	3,414

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	79.0	77.0	75.7	69.7	78.1	78.7
MEDIUM TRUCKS	70.3	66.4	58.6	67.8	73.9	74.0
HEAVY TRUCKS	76.0	72.1	64.3	73.5	79.6	79.7
VEHICULAR NOISE	81.2	78.5	76.1	75.8	82.6	**82.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	962	3044	9625	30436
LDN	907	2869	9074	28695

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT State to San Jacinto
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	46,217
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	4,622

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.3	78.3	77.0	71.0	79.4	80.0
MEDIUM TRUCKS	71.7	67.7	59.9	69.1	75.3	75.3
HEAVY TRUCKS	77.4	73.4	65.6	74.8	81.0	81.0
VEHICULAR NOISE	82.5	79.8	77.4	77.1	83.9	**84.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1303	4120	13029	41201
LDN	1228	3884	12284	38845

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT San Jacinto to Main/Lake Park
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	46,217
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	4,622

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.3	78.3	77.0	71.0	79.4	80.0
MEDIUM TRUCKS	71.7	67.7	59.9	69.1	75.3	75.3
HEAVY TRUCKS	77.4	73.4	65.6	74.8	81.0	81.0
VEHICULAR NOISE	82.5	79.8	77.4	77.1	83.9	**84.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1303	4120	13029	41201
LDN	1228	3884	12284	38845

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Main/Lake Park to 7th
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	46,217
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	4,622

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.3	78.3	77.0	71.0	79.4	80.0
MEDIUM TRUCKS	71.7	67.7	59.9	69.1	75.3	75.3
HEAVY TRUCKS	77.4	73.4	65.6	74.8	81.0	81.0
VEHICULAR NOISE	82.5	79.8	77.4	77.1	83.9	**84.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1303	4120	13029	41201
LDN	1228	3884	12284	38845

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	46,217
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	4,622

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.3	78.3	77.0	71.0	79.4	80.0
MEDIUM TRUCKS	71.7	67.7	59.9	69.1	75.3	75.3
HEAVY TRUCKS	77.4	73.4	65.6	74.8	81.0	81.0
VEHICULAR NOISE	82.5	79.8	77.4	77.1	83.9	**84.2**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1303	4120	13029	41201
LDN	1228	3884	12284	38845

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Ramona Expressway
SEGMENT Esplanade to Hemet
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	10,787
SPEED =	65
PK HR % =	10
NEAR LANE/FAR LANE DIST =	78
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	1,079

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	31.4	- -
MEDIUM TRUCKS=	4.00	31.3	- -
HEAVY TRUCKS =	8.01	31.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.0	72.0	70.7	64.7	73.1	73.7
MEDIUM TRUCKS	65.3	61.4	53.6	62.8	68.9	69.0
HEAVY TRUCKS	71.0	67.1	59.3	68.5	74.6	74.7
VEHICULAR NOISE	76.2	73.5	71.1	70.7	77.6	**77.8**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	304	962	3041	9616
LDN	287	907	2867	9066

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT Ramona Expy. to Main/Ramona Blvd.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,700
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,570

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.9	69.9	68.6	62.5	71.0	71.6
MEDIUM TRUCKS	65.3	61.3	53.5	62.7	68.9	68.9
HEAVY TRUCKS	72.0	68.1	60.3	69.5	75.6	75.7
VEHICULAR NOISE	75.4	72.4	69.3	71.0	77.5	**77.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	295	934	2954	9343
LDN	284	898	2840	8980

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT Main/Ramona Blvd. to 7th
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,700
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,570

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.9	69.9	68.6	62.5	71.0	71.6
MEDIUM TRUCKS	65.3	61.3	53.5	62.7	68.9	68.9
HEAVY TRUCKS	72.0	68.1	60.3	69.5	75.6	75.7
VEHICULAR NOISE	75.4	72.4	69.3	71.0	77.5	**77.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	295	934	2954	9343
LDN	284	898	2840	8980

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT 7th to Esplanade
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,700
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,570

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.9	69.9	68.6	62.5	71.0	71.6
MEDIUM TRUCKS	65.3	61.3	53.5	62.7	68.9	68.9
HEAVY TRUCKS	72.0	68.1	60.3	69.5	75.6	75.7
VEHICULAR NOISE	75.4	72.4	69.3	71.0	77.5	**77.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	295	934	2954	9343
LDN	284	898	2840	8980

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY San Jacinto Avenue
SEGMENT Esplande to Menlo Ave
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,700
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,570

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.9	69.9	68.6	62.5	71.0	71.6
MEDIUM TRUCKS	65.3	61.3	53.5	62.7	68.9	68.9
HEAVY TRUCKS	72.0	68.1	60.3	69.5	75.6	75.7
VEHICULAR NOISE	75.4	72.4	69.3	71.0	77.5	**77.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	295	934	2954	9343
LDN	284	898	2840	8980

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT Ramona Expwy. to Ramona Blvd.
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,568
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,257

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.8	71.8	70.5	64.5	72.9	73.5
MEDIUM TRUCKS	66.1	62.1	54.3	63.5	69.7	69.7
HEAVY TRUCKS	72.3	68.3	60.5	69.7	75.9	75.9
VEHICULAR NOISE	76.5	73.7	71.0	71.6	78.3	**78.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	354	1121	3544	11206
LDN	337	1066	3372	10665

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT Ramona Blvd to Cottonwood
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,568
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,257

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.8	71.8	70.5	64.5	72.9	73.5
MEDIUM TRUCKS	66.1	62.1	54.3	63.5	69.7	69.7
HEAVY TRUCKS	72.3	68.3	60.5	69.7	75.9	75.9
VEHICULAR NOISE	76.5	73.7	71.0	71.6	78.3	**78.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	354	1121	3544	11206
LDN	337	1066	3372	10665

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY Sanderson Avenue
SEGMENT Cottonwood to 7th
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,568
SPEED =	55
PK HR % =	10
NEAR LANE/FAR LANE DIST =	53
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	2,257

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	42.5	- -
MEDIUM TRUCKS=	4.00	42.4	- -
HEAVY TRUCKS =	8.01	42.5	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.8	71.8	70.5	64.5	72.9	73.5
MEDIUM TRUCKS	66.1	62.1	54.3	63.5	69.7	69.7
HEAVY TRUCKS	72.3	68.3	60.5	69.7	75.9	75.9
VEHICULAR NOISE	76.5	73.7	71.0	71.6	78.3	**78.5**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	354	1121	3544	11206
LDN	337	1066	3372	10665

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: San Jacinto General Plan Noise Study
ROADWAY 7th Street
SEGMENT Warren to Sanderson
LOCATION: City of San Jacinto, CA SCENARIO: 2040

JOB #: 0462-2018-01
DATE: 28-Oct-21
ENGINEER: C Pincock

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	9,667
SPEED =	30
PK HR % =	10
NEAR LANE/FAR LANE DIST =	36
ROAD ELEVATION =	0
GRADE =	0
PK HR VOL =	967

RECEIVER INPUT DATA

RECEIVER DISTANCE =		50
DIST C/L TO WALL =		0
RECEIVER HEIGHT =		5
WALL DISTANCE FROM RECEIVER =		50
PAD ELEVATION =		0
ROADWAY VIEW:	LF ANGLE	-90
	RT ANGLE	90
	DF ANGLE	180

SITE CONDITIONS

AUTOMOBILES	10	
MED TRUCKS	10	(HARD SITE=10, SOFT SITE=15)
HVY TRUCKS	10	

WALL INFORMATION

HTH WALL =	0	FT
AMBIENT =	0	
BARRIER =	0	(0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.755	0.140	0.104	0.920
MEDIUM TRUCKS	0.480	0.020	0.500	0.030
HEAVY TRUCKS	0.480	0.020	0.500	0.050

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	46.7	- -
MEDIUM TRUCKS=	4.00	46.7	- -
HEAVY TRUCKS =	8.01	46.7	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.1	58.8	52.8	61.2	61.9
MEDIUM TRUCKS	57.9	53.9	46.1	55.3	61.5	61.5
HEAVY TRUCKS	65.8	61.8	54.0	63.2	69.4	69.4
VEHICULAR NOISE	67.8	64.4	60.2	64.2	70.5	**70.7**

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	184	582	1840
LDN	57	179	567	1795