APPENDIX G

NOISE AND VIBRATION IMPACT ANALYSIS

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NOISE AND VIBRATION IMPACT ANALYSIS

SAN JOAQUIN COUNTY BEWELL BEHAVIORAL HEALTH CAMPUS PROJECT

SAN JOAQUIN COUNTY, CALIFORNIA

LSA

May 2025

NOISE AND VIBRATION IMPACT ANALYSIS

SAN JOAQUIN COUNTY BEWELL BEHAVIORAL HEALTH CAMPUS PROJECT

SAN JOAQUIN COUNTY, CALIFORNIA

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LIST OF ABBREVIATIONS AND ACRONYMS

ADT	average daily traffic
CALGreen Code	California Green Building Standards Code
CEQA	California Environmental Quality Act
County	San Joaquin County
CNEL	Community Noise Equivalent Level
D	distance from the receiver to a piece of equipment
dB	decibel(s)
dBA	A-weighted decibel(s)
FAR	floor area ratio
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FTA Manual	Federal Transit Administration's 2018 *Transit Noise and Vibration Impact Assessment Manual*
HVAC	heating, ventilation, and air conditioning
I-5	Interstate 5
in/sec	inches per second
L_{50}	median noise level
L_{dn}	day-night average noise level
L_{eq}	equivalent continuous sound level
L_{max}	maximum instantaneous sound level
L_V	vibration velocity
OITC	Outdoor-Indoor Sound Transmission Class
PPV	peak particle velocity
project	San Joaquin County Be Well Behavioral Health Campus Project

RMS	root-mean-square
SJ	San Joaquin
SPL	sound pressure level
STC	Sound Transmission Class
U.F.	usage factor
V	root-mean-square velocity amplitude
VdB	vibration velocity decibels
V_{ref}	reference velocity amplitude

INTRODUCTION

This Noise and Vibration Impact Analysis has been prepared to evaluate the potential noise and vibration impacts and reduction measures associated with the San Joaquin County BeWell Behavioral Health Campus Project (project) in San Joaquin County, California. This report is intended to satisfy the San Joaquin County (County) requirement for a project-specific noise and vibration impact analysis by examining the impacts of the project site and evaluating reduction measures that the project may require.

PROJECT LOCATION AND DESCRIPTION

The project site (Assessor's Parcel Number [APN] 193-050-27) is located in the unincorporated community of French Camp, just south of the City of Stockton. The project site is bounded by undeveloped land to the north, South El Dorado Street to the east, West Hospital Road to the south, and Interstate 5 (I-5) to the west. Figure 1, Project Site, depicts the project site's location and regional vicinity.

The proposed project would develop the project site with the San Joaquin (SJ) BeWell Campus. The SJ BeWell Campus is envisioned for development as two campuses: South Campus and North Campus. The South Campus would be initially developed with four buildings, 175 parking spaces, and extensive outdoor amenities including walking trails, activity areas, a community garden, an area of respite, and other landscaped areas. The South Campus would provide a continuum of behavioral health and wellness care, including outpatient, urgent care, and residential treatment services.

The North Campus would be developed after the South Campus and would include ten buildings that would support expanded residential treatment services. Both the South Campus and the North Campus are assessed in this document at the project level. Although the SJ BeWell Campus would be developed over time, for purposes of this analysis, the entire project is being analyzed as a complete development. Figure 2, Conceptual Site Plan, depicts the proposed project, including the South Campus and the North Campus.

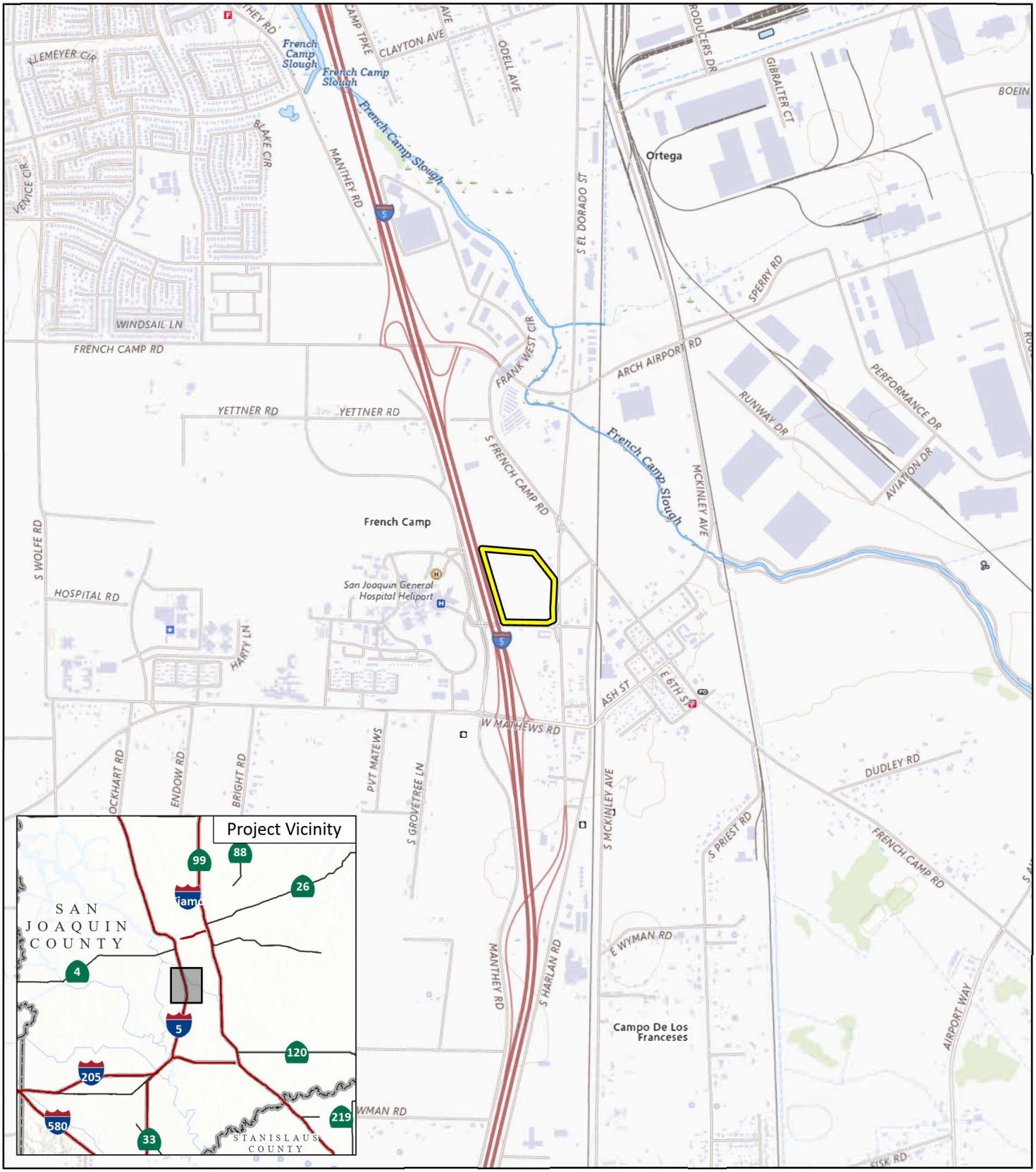
Construction of the proposed project is anticipated to last approximately 17 months, beginning January 2026 and ending June 2027.

EXISTING LAND USES IN THE PROJECT AREA

The project site is primarily surrounded by undeveloped land and residential uses. The areas adjacent to the project site include the following uses:

- **North:** Existing undeveloped land
- **South:** Existing undeveloped land and Eldorado Palms Apartments opposite Hospital Road
- **East:** Existing light industrial uses opposite El Dorado Street
- **Northeast:** Existing residential uses
- **Southeast:** Existing residential uses opposite El Dorado Street
- **West:** Existing Interstate 5 (I-5) followed by San Joaquin General Hospital

The nearest sensitive receptors are the existing single-family residences adjacent to the project site's northeastern boundary and the Eldorado Palms Apartments located south of the project site boundary approximately 100 feet away.



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Project Location

FIGURE 1

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SOURCE: USGS The National Map (2019)

San Joaquin BeWell Behavioral Health Campus Project

Project Location

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FIGURE 2

0 90 180
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SOURCE: Boulder Associates, 2024

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San Joaquin BeWell Behavioral Health Campus Project

Site Plan

NOISE AND VIBRATION FUNDAMENTALS

CHARACTERISTICS OF SOUND

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a sound wave, which results in the tone's range from high to low. Loudness is the strength of a sound, and it describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity is the average rate of sound energy transmitted through a unit area perpendicular to the direction in which the sound waves are traveling. This characteristic of sound can be precisely measured with instruments. The analysis of the project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

MEASUREMENT OF SOUND

Sound intensity is measured with the A-weighted decibel (dBA) scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound, similar to the human ear's de-emphasis of these frequencies. Decibels (dB), unlike the linear scale (e.g., inches or pounds), are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 dB is 10 times more intense than 0 dB, 20 dB is 100 times more intense than 0 dB, and 30 dB is 1,000 times more intense than 0 dB. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 0 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the sound's loudness. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound levels dissipate exponentially with distance from their noise sources. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations), the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source sound levels decrease 4.5 dB for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous

sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels. CNEL is the time-weighted average noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the relaxation. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The County uses the L_{dn} noise scale for long-term traffic noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts, which are increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to sound levels higher than 85 dBA. Exposure to high sound levels affects the entire system, with prolonged sound exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of sound exposure above 90 dBA would result in permanent cell damage. When the sound level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of sound is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by a feeling of pain in the ear (i.e., the threshold of pain). A sound level of 160–165 dBA will result in dizziness or a loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

Table A lists definitions of acoustical terms, and Table B shows common sound levels and their sources.

Table A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of sound measurement that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, hertz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., the number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted unless reported otherwise.)
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1%, 10%, 50%, and 90% of a stated time period, respectively.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time. Usually a composite of sound from many sources from many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

Sources: (1) Technical Noise Supplement (Caltrans 2013); (2) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
Caltrans = California Department of Transportation
FTA = Federal Transit Administration

Table B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/ Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	—
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	—
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	—
Near Freeway Auto Traffic	70	Moderately Loud	Reference level
Average Office	60	Quiet	One-half as loud
Suburban Street	55	Quiet	—
Light Traffic; Soft Radio Music in Apartment	50	Quiet	One-quarter as loud
Large Transformer	45	Quiet	—
Average Residence without Stereo Playing	40	Faint	One-eighth as loud
Soft Whisper	30	Faint	—
Rustling Leaves	20	Very Faint	—
Human Breathing	10	Very Faint	Threshold of Hearing
—	0	Very Faint	—

Source: Compiled by LSA (2022).

FUNDAMENTALS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may not be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items sitting on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile-driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 feet as detailed in the Federal Transit Administration's (FTA) 2018 *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual). When roadways are smooth, vibration from traffic, even heavy

trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, construction of the project could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile-driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2018). Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where "L_v" is the vibration velocity in decibels (VdB), "V" is the RMS velocity amplitude, and "V_{ref}" is the reference velocity amplitude, or 1×10^{-6} inches per second (in/sec) used in the United States.

REGULATORY SETTING

APPLICABLE NOISE STANDARDS

The applicable noise standards governing the project site include the criteria in the State of California Green Building Standards Code (CALGreen Code), San Joaquin County's General Plan Public Health and Safety Element, and the San Joaquin County Municipal Code.

State of California Green Building Standards Code

The CALGreen Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other noise source. If the development falls within an airport or freeway 65 dBA CNEL noise contour, buildings shall be constructed to provide an interior noise level environment attributable to exterior sources that does not exceed an hourly equivalent level of 50 dBA L_{eq} in occupied areas during any hour of operation.

San Joaquin County

San Joaquin County General Plan

San Joaquin County General Plan Public Health and Safety Element includes several noise control programs designed to protect the County's citizens from the adverse effects of uncontrolled noise by controlling noise at its source, as well as attenuating noise between the source and the receiver. The General Plan Noise Element includes the following goals that are applicable to the proposed project:

Goal PHS-9: To protect county residents from the harmful and nuisance effects of exposure to excessive noise.

PHS-9.1: Noise Standards for New Land Uses – The County shall require new development to comply with the noise standards shown in Tables PHS-1 and PHS-2 (Tables C and D of this document) through proper site and building design, such as building orientation, setbacks, barriers, and building construction practices.

PHS-9.2: Airport Noise Compatibility Criteria – The County shall require new development within airport areas of influence be consistent with the Airport Noise Compatibility Criteria in the Airport Land Use Compatibility Plan.

PHS-9.3: Screening Distances – The County shall require new development proposed to be located adjacent to major freeways or railroad tracks to be consistent with the Federal Transit Administration (FTA) noise screening distance criteria.

PHS-9.4: Acceptable Vibration Levels – The County shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby vibration-sensitive uses based FTA criteria.

PHS-9.7: Require Acoustical Study – The County shall require a project applicant to prepare an acoustical study for any proposed new residential or other noise-sensitive development when the County determines the proposed development may expose people to noise levels exceeding acceptable General Plan noise levels.

Table C: Non-Transportation Noise Level Performance Standards

TABLE PHS-1
NON-TRANSPORTATION NOISE LEVEL PERFORMANCE STANDARDS FOR NOISE-SENSITIVE USES AT OUTDOOR ACTIVITY AREAS[1, 2]

Noise Level Descriptor	Daytime[3] (7:00 am – 10:00 pm)	Nighttime[3] (10:00 pm – 7:00 am)
Hourly Leq dB	50	45
Maximum Level, dB	70	65

Notes: These standards apply to new or existing residential areas affected by new or existing non-transportation sources.

[1] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

[2] Refer to Mountain House Master Plan, Table 11.2, Exterior Noise Standards for Noise-Sensitive Uses Affected by Non-Transportation Noise Sources, Page 11.12, for Mountain House Noise Standards.

[3] Each of the noise level standards specified shall be reduced by 5 dB for impulsive noise, single tone noise, or noise consisting primarily of speech or music.

Table D: Transportation Noise Level Performance Standards

TABLE PHS-2 MAXIMUM ALLOWABLE NOISE EXPOSURE FROM TRANSPORTATION NOISE SOURCES[1]		
Noise Sensitive Land Use Types	**Outdoor Activity Areas[2] (dB Ldn)**	**Interior Spaces (dB Ldn)**
Residential	65	45
Administrative Office	-	45
Child Care Services–Child Care Centers	-	45
Community Assembly	65	45
Cultural & Library Services	-	45
Educational Services: General	-	45
Funeral & Interment Services – Undertaking	65	45
Lodging Services	65	45
Medical Services	65	45
Professional Services	-	45
Public Services (excluding hospitals)	-	45
Public Services (hospitals only)	65	45
Recreation – Indoor Spectator	-	45
Religious Assembly	65	45

Notes: These standards apply to new or existing residential areas affected by new or existing non-transportation sources.

[1] Refer to Mountain House Master Plan, Chapter 11, Noise, for Mountain House Noise Standards.

[2] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

San Joaquin County Municipal Code

Section 9-404.060 of the San Joaquin County Municipal Code (NBMC) sets regulations for specific activities. 9-404.060 (a), Construction, sets the following regulation on construction activities:

"General construction noise shall be limited to weekdays from 6:00 a.m. to 9:00 p.m. Pre-construction activities, including loading and unloading, deliveries, truck idling, backup beeps, and radios, also are limited to these construction noise hours."

Federal Transit Administration

Although the County does not have daytime construction noise level limits for activities that occur within the specified hours in Section 9-404.060 to determine potential California Environmental Quality Act (CEQA) noise impacts, construction noise was assessed using criteria from the FTA Manual. Table E shows the FTA's Detailed Assessment Construction Noise Criteria based on the composite noise levels per construction phase.

Table E: Detailed Assessment Daytime Construction Noise Criteria

Land Use	Daytime 8-hour L_{eq} (dBA)
Residential	80
Commercial	85
Industrial	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level

APPLICABLE VIBRATION STANDARDS

Federal Transit Administration

Vibration standards included in the FTA Manual are used in this analysis for ground-borne vibration impacts on human annoyance. The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table F provides the criteria for assessing the potential for interference or annoyance from vibration levels in a building.

Table F: Interpretation of Vibration Criteria for Detailed Analysis

Land Use	Max L_v (VdB)[1]	Description of Use
Workshop	90	Vibration that is distinctly felt. Appropriate for workshops and similar areas not as sensitive to vibration.
Office	84	Vibration that can be felt. Appropriate for offices and similar areas not as sensitive to vibration.
Residential Day	78	Vibration that is barely felt. Adequate for computer equipment and low-power optical microscopes (up to 20×).
Residential Night and Operating Rooms	72	Vibration is not felt, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100×) and other equipment of low sensitivity.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] As measured in 1/3-octave bands of frequency over a frequency range of 8 to 80 Hertz.
FTA = Federal Transit Administration
Max = maximum
L_V = vibration velocity
VdB = vibration velocity in decibels

Table G lists the potential vibration building damage criteria associated with construction activities, as suggested in the FTA Manual. FTA guidelines show that a vibration level of up to 0.5 in/sec in PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster) and would not result in any construction vibration damage. For non-engineered timber and masonry buildings, the construction building vibration damage criterion is 0.2 in/sec in PPV.

Table G: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber (no plaster)	0.50
Engineered concrete and masonry (no plaster)	0.30
Non-engineered timber and masonry buildings	0.20
Buildings extremely susceptible to vibration damage	0.12

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
FTA = Federal Transit Administration PPV = peak particle velocity
in/sec = inch/inches per second

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The primary existing noise sources in the project area include vehicle traffic on I-5, El Dorado Street, and Hospital Road, in addition to occasional aircraft noise and railroad activities.

AMBIENT NOISE MEASUREMENTS

Long-Term Noise Measurements

To assess existing noise levels, LSA conducted three long-term noise measurements in the vicinity of the project site. The long-term (24-hour) noise level measurements were conducted on November 7 through November 8, 2024, using three Larson Davis Spark 706RC Dosimeters. Table H provides a summary of the measured hourly noise levels from the long-term noise level measurements. Noise measurement sheets are provided in Appendix A. Figure 3 shows the long-term monitoring locations.

Table H: Existing Noise Level Measurements

Location Number	Location Description	Daytime Noise Levels[1] (dBA L_{eq})	Nighttime Noise Levels[2] (dBA L_{eq})	Average Daily Noise Levels (dBA L_{dn})	Primary Noise Sources
LT-1	Southwest corner of project site, approximately 280 feet away from the I-5 centerline and 940 feet away from the Hospital Road centerline.	62.8-69.8	64.0-68.9	73.1	Vehicle traffic on I-5, aircraft operations
LT-2	South of Hospital Road, west of Eldorado Palms Apartments, approximately 40 feet away from the Hospital Road centerline and 420 feet away from the El Dorado Street centerline.	63.5-66.8	60.7-67.7	72.0	Vehicle traffic on I-5, Hospital Road, aircraft operations
LT-3	West of residence at 5601 El Dorado Street, approximately 85 feet away from the El Dorado Street centerline.	59.7-66.1	61.0-67.2	71.0	Vehicle traffic on I-5, El Dorado Street, Occasional railroad activities

Source: Compiled by LSA (2024).
[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 10:00 p.m.
[2] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.
L_{dn} = Day-night Noise Level dBA = A-weighted decibels L_{eq} = equivalent continuous sound level

EXISTING AIRCRAFT NOISE

Aircraft flyovers may be audible on the project site due to aircraft activity in the vicinity. The nearest airport to the project is Stockton Metropolitan Airport, a domestic airport approximately 1.7 miles east of the project site. The project site is located outside the Airport's 65 dBA CNEL (Coffman Associates, Inc. 2016). In addition, the heliport at the San Joaquin General Hospital is located approximately 0.15 miles west of the project site. Based on previous analyses completed by LSA, assuming a conservative scenario in which three (3) helipad activities occur in the same day, including one during evening hour and one during nighttime hours, the 60 dBA CNEL noise contour is

approximately 600 feet from the center of the helipad. At a distance of approximately 780 feet from the existing helipad, the proposed project is located outside of the 60 dBA CNEL noise contour.

Although aircraft related noise may be audible on the project site, the proposed project would not expose people residing or working in the project area to excessive noise levels due to the proximity of an airport or helipad. Therefore, this impact would be less than significant, and no further analysis is required.

LSA

LEGEND

Project Site Boundary

LT-1 Long-term Noise Monitoring Location

FIGURE 4-1

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SOURCE: Google Earth 2024

San Joaquin BeWell Behavioral Health Campus

Noise Monitoring Locations

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PROJECT IMPACTS

SHORT-TERM CONSTRUCTION NOISE IMPACTS

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes 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. Although there would be a relatively high single-event noise-exposure potential causing intermittent noise nuisance, the effect on longer-term ambient noise levels would be small when compared to the existing daily traffic volume of 7,261 on South El Dorado Street. During the overlap of the building construction phase and architectural coating phase, approximately 1,826 acoustically equivalent trips would occur during an average day from worker and delivery activities resulting in a traffic noise increase of approximately 0.95 dBA as shown in Appendix B. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term construction-related impacts associated with worker commutes and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction, which includes site preparation, grading, building construction, paving, and architectural coating on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table I lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, taken from the Federal Highway Administration's (FHWA) *FHWA Roadway Construction Noise Model* (FHWA 2006).

In addition to the reference maximum noise level, the usage factor provided in Table I is used to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10\log(U.F.) - 20\log\left(\frac{D}{50}\right)$$

"L_{eq} (equip)" is the L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period, "E.L." is the noise emission level of the particular piece of equipment at a reference distance of 50 feet, "U.F." is the usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time, and "D" is the distance from the receiver to the piece of equipment.

Table I: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)[1]	Maximum Noise Level (L_{max}) at 50 ft[2]
Auger Drill Rig	20	84
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Paver	50	77
Pickup Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Trencher	50	80
Welder	40	73

Source: *FHWA Roadway Construction Noise Model User's Guide,* Table 1 (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power.
[2] Maximum noise levels were developed based on Specification 721.560 from the Central Artery/Tunnel program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
FHWA = Federal Highway Administration
ft = foot/feet
L_{max} = maximum instantaneous sound level

Each piece of construction equipment operates as an individual point source. Using the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq\ (composite) = 10 * \log_{10}\left(\sum_{1}^{n} 10^{\frac{Ln}{10}}\right)$$

Using the equations from the methodology above, the reference information in Table I, and the construction equipment list provided, the composite noise levels of each construction phase were calculated. The project construction composite noise levels at a distance of 50 feet would range from 74 dBA L_{eq} to 88 dBA L_{eq}, with the highest noise levels occurring during the site preparation and grading phases.

Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq\ (at\ distance\ X) = Leq\ (at\ 50\ feet) - 20 * \log_{10}\left(\frac{X}{50}\right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA while halving the distance would increase noise levels by 6 dBA.

Table J shows the nearest sensitive uses to the project site, their distance from the center of construction activities, and composite noise levels expected during construction. These noise level projections do not consider intervening topography or barriers. Construction equipment calculations are provided in Appendix B.

Table J: Potential Construction Noise Impacts at Nearest Receptor

Receptor (Location)	Composite Noise Level (dBA L_{eq}) at 50 ft[1]	Distance (ft)	Composite Noise Level (dBA L_{eq})
Residential (northeast)	88	440	70
Residential (south)		660	66
Residential (southeast)		820	64

Source: Compiled by LSA (2024).
[1] The composite construction noise level represents the site preparation and grading phases which are expected to result in the greatest noise level as compared to other phases.
dBA L_{eq} = average A-weighted hourly noise level
ft = foot/feet

While construction noise will vary, it is expected that composite noise levels during construction at the nearest off-site sensitive uses (residential) to the northeast would reach 70 dBA L_{eq} during daytime hours. These predicted noise levels would only occur when all construction equipment is operating simultaneously and, therefore, are assumed to be rather conservative in nature. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the project area under existing conditions, the noise impacts would no longer occur once project construction is completed.

As it relates to off-site uses, construction-related noise impacts would remain below the 80 dBA L_{eq}, 1-hour construction noise level criteria for daytime construction noise level criteria as established by the FTA for residential land uses; therefore, the impact would be considered less than significant. Compliance with the San Joaquin Municipal Code construction hours would ensure that construction noise does not disturb the sensitive uses during hours when ambient noise levels are likely to be lower (i.e., at night).

SHORT-TERM CONSTRUCTION VIBRATION IMPACTS

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in RMS (VdB) and assesses the potential for building damages using vibration levels in PPV (in/sec). This is because vibration levels calculated in RMS are best for characterizing human

response to building vibration, while vibration level in PPV is best for characterizing potential for damage.

Table K shows the PPV and VdB values at 25 feet from the construction vibration source. As shown in Table K, bulldozers, and other heavy-tracked construction equipment (expected to be used for this project) generate approximately 0.089 PPV in/sec or 87 VdB of ground-borne vibration when measured at 25 feet, based on the FTA Manual. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would be used at or near the project setback line).

Table K: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	PPV (in/sec)	L_V (VdB)[1]
Pile Driver (Impact), Typical	0.644	104
Pile Driver (Sonic), Typical	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer[2]	**0.089**	**87**
Caisson Drilling	0.089	87
Loaded Trucks[2]	**0.076**	**86**
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS vibration velocity in decibels (VdB) is 1 µin/sec.
[2] Equipment shown in **bold** is expected to be used on site.

µin/sec = microinches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inch/inches per second
L_v = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

The formulae for vibration transmission are provided below and Tables L and M below provide a summary of off-site construction vibration levels.

$$L_vdB\ (D) = L_vdB\ (25\ ft) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

As previously shown in Table F, the threshold at which vibration levels would result in annoyance would be 78 VdB for daytime residential uses. As shown in Table G, the FTA guidelines indicate that for a non-engineered timber and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV.

Table L: Potential Construction Vibration Annoyance Impacts at Nearest Receptor

Receptor (Location)	Reference Vibration Level (VdB) at 25 ft[1]	Distance (ft)	Vibration Level (VdB)
Residential (northeast)	87	440	50
Residential (south)		660	44
Residential (southeast)		820	42

Source: Compiled by LSA (2024).
[1] The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.
[2] The assessment distance is associated with the average condition, identified by the distance from the center of construction activities to surrounding uses.
ft = foot/feet
VdB = vibration velocity decibels

Table M: Potential Construction Vibration Damage Impacts at Nearest Receptor

Receptor (Location)	Reference Vibration Level (PPV) at 25 ft[1]	Distance (ft)	Vibration Level (PPV)
Residential (northeast)	0.089	20	0.124
Residential (south)		100	0.008
Residential (southeast)		235	0.003

Source: Compiled by LSA (2024).
[1] The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.
[2] The assessment distance is associated with the peak condition, identified by the distance from the perimeter of construction activities to surrounding structures.
ft = foot/feet
PPV = peak particle velocity

Based on the information provided in Table L, vibration levels are expected to approach 50 VdB at the closest sensitive use (residential) to the northeast and would not exceed the annoyance thresholds.

Based on the information provided in Table M, the closest structure to external construction activities are the residential uses to the northeast. Using the reference data from Table K and the equation above, it is expected that vibration levels generated by dump trucks and other large equipment would generate ground-borne vibration levels of up to 0.124 PPV (in/sec) at the closest structures to the project site. This vibration level would not exceed the 0.2 in/sec PPV threshold considered safe for non-engineered timber and masonry buildings, which would result in a less than significant impact. Vibration levels at all other buildings would be lower. Therefore, construction would not result in any vibration damage, and impacts would be less than significant.

LONG-TERM OFF-SITE TRAFFIC NOISE IMPACTS

The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions along street segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resulting noise levels are weighted and summed over 24-hour periods to determine the L_{dn} values. The Existing, baseline, and future, without and with project ADT volumes were obtained from the *Transportation Impact Analysis for the San Joaquin Be Well Project* (W-Trans, 2025). The standard vehicle mix for Southern California roadways was used for roadways in the project vicinity. Tables N, O, and P list the traffic noise levels for without and with project scenarios. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix C.

The results of the calculations show that an increase of up to 0.8 dBA L_{dn} is expected along the road segments in the vicinity of the project. A noise level increase of less than 3 dBA would not be perceptible to the human ear; therefore, the traffic noise increase in the vicinity of the project site resulting from the proposed project would be less than significant.

LONG-TERM TRAFFIC-RELATED VIBRATION IMPACTS

The proposed project would not generate vibration levels related to on-site operations. In addition, vibration levels generated from project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Based on a reference vibration level of 0.076 in/sec PPV, structures greater than 20 feet from the roadways that contain project trips would experience vibration levels below the most conservative standard of 0.12 in/sec PPV; therefore, vibration levels generated from project-related traffic on the adjacent roadways would be less than significant, and no mitigation measures are required.

Table N: Existing (2025) Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA L_{dn} (ft)	Centerline to 65 dBA L_{dn} (ft)	Centerline to 60 dBA L_{dn} (ft)	L_{dn} (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA L_{dn} (ft)	Centerline to 65 dBA L_{dn} (ft)	Centerline to 60 dBA L_{dn} (ft)	L_{dn} (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
French Camp Road West of Manthey Road	13,280	< 50	93	286	66.3	13,330	< 50	93	287	66.3	0.0
French Camp Road East of Manthey Road	14,550	< 50	101	314	66.7	14,600	< 50	101	315	66.7	0.0
French Camp Road West of El Dorado Street	5,810	< 50	< 50	91	61.5	6,620	< 50	< 50	104	62.1	0.6
French Camp Road East of El Dorado Street	7,110	< 50	< 50	111	62.4	7,290	< 50	< 50	114	62.5	0.1
Manthey Road South of French Camp Road	4,750	< 50	< 50	53	59.1	4,770	< 50	< 50	53	59.1	0.0
Frank West Circle North of French Camp Road	1,480	< 50	< 50	< 50	52.1	1,480	< 50	< 50	< 50	52.1	0.0
Arch Airport Road East of French Camp Road	20,130	< 50	139	433	67.9	20,180	< 50	139	435	67.9	0.0
El Dorado Street North of French Camp Road	10,630	< 50	100	307	66.4	10,740	< 50	101	310	66.4	0.0
El Dorado Street South of French Camp Road	9,530	< 50	90	276	65.9	10,630	< 50	100	307	66.4	0.5
Hospital Road East of El Dorado Street	230	< 50	< 50	< 50	47.0	230	< 50	< 50	< 50	47.0	0.0
Hospital Road West of El Dorado Street	1,710	< 50	< 50	< 50	56.2	2,050	< 50	< 50	< 50	57.0	0.8
Mathews Road East of Manthey Road	13,740	< 50	128	397	67.5	14,030	< 50	130	405	67.6	0.1
Mathews Road West of Manthey Road	10,470	< 50	99	303	66.3	10,730	< 50	101	310	66.4	0.1

Source: Compiled by LSA (2025).
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
ft = foot/feet

Table O: Baseline Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA L_{dn} (ft)	Centerline to 65 dBA L_{dn} (ft)	Centerline to 60 dBA L_{dn} (ft)	L_{dn} (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA L_{dn} (ft)	Centerline to 65 dBA L_{dn} (ft)	Centerline to 60 dBA L_{dn} (ft)	L_{dn} (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
French Camp Road West of Manthey Road	15,450	< 50	107	333	67.0	15,500	< 50	107	334	67.0	0.0
French Camp Road East of Manthey Road	21,330	< 50	146	459	68.4	21,380	< 50	147	460	68.4	0.0
French Camp Road West of El Dorado Street	6,540	< 50	< 50	103	62.1	7,350	< 50	< 50	115	62.6	0.5
French Camp Road East of El Dorado Street	7,680	< 50	< 50	120	62.8	7,860	< 50	< 50	123	62.9	0.1
Manthey Road South of French Camp Road	7,270	< 50	< 50	79	60.9	8,080	< 50	< 50	88	61.4	0.5
Frank West Circle North of French Camp Road	1,480	< 50	< 50	< 50	52.1	1,480	< 50	< 50	< 50	52.1	0.0
Arch Airport Road East of French Camp Road	28,300	66	194	609	69.3	28,350	66	194	610	69.4	0.1
El Dorado Street North of French Camp Road	11,400	< 50	107	329	66.7	11,510	< 50	108	332	66.7	0.0
El Dorado Street South of French Camp Road	10,300	< 50	97	298	66.2	11,400	< 50	107	329	66.7	0.5
Hospital Road East of El Dorado Street	230	< 50	< 50	< 50	47.0	230	< 50	< 50	< 50	47.0	0.0
Hospital Road West of El Dorado Street	1,790	< 50	< 50	< 50	56.4	2,130	< 50	< 50	< 50	57.2	0.8
Mathews Road East of Manthey Road	17,710	57	163	511	68.6	18,020	58	166	520	68.7	0.1
Mathews Road West of Manthey Road	10,750	< 50	101	311	66.4	11,030	< 50	104	319	66.5	0.1

Source: Compiled by LSA (2025).
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = foot/feet

Table P: Future Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Project Traffic Conditions					
	ADT	Centerline to 70 dBA L_{dn} (ft)	Centerline to 65 dBA L_{dn} (ft)	Centerline to 60 dBA L_{dn} (ft)	L_{dn} (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA L_{dn} (ft)	Centerline to 65 dBA L_{dn} (ft)	Centerline to 60 dBA L_{dn} (ft)	L_{dn} (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
French Camp Road West of Manthey Road	20,430	< 50	140	440	68.2	20,480	< 50	141	441	68.2	0.0
French Camp Road East of Manthey Road	26,310	60	180	566	69.3	26,360	60	180	567	69.3	0.0
French Camp Road West of El Dorado Street	14,580	< 50	73	227	65.5	15,390	< 50	77	239	65.8	0.3
French Camp Road East of El Dorado Street	17,370	< 50	87	270	66.3	17,550	< 50	87	273	66.3	0.0
Manthey Road South of French Camp Road	14,860	< 50	53	160	64.0	14,540	< 50	< 50	157	63.9	-0.1
Frank West Circle North of French Camp Road	1,480	< 50	< 50	< 50	52.1	1,480	< 50	< 50	< 50	52.1	0.0
Arch Airport Road East of French Camp Road	29,880	69	205	643	69.6	29,930	69	205	644	69.6	0.0
El Dorado Street North of French Camp Road	16,470	< 50	152	475	68.3	16,580	< 50	153	478	68.3	0.0
El Dorado Street South of French Camp Road	13,440	< 50	125	388	67.4	14,540	< 50	135	420	67.7	0.3
Hospital Road East of El Dorado Street	780	< 50	< 50	< 50	52.3	780	< 50	< 50	< 50	52.3	0.0
Hospital Road West of El Dorado Street	1,790	< 50	< 50	< 50	56.4	2,140	< 50	< 50	< 50	57.2	0.8
Mathews Road East of Manthey Road	17,710	57	163	511	68.6	18,020	58	166	520	68.7	0.1
Mathews Road West of Manthey Road	10,750	< 50	101	311	66.4	11,030	< 50	104	319	66.5	0.1

Source: Compiled by LSA (2025).
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = foot/feet

LONG-TERM STATIONARY NOISE IMPACTS TO OFF-SITE RECEPTOR

The project would have various rooftop mechanical equipment, including HVAC units, atop the proposed buildings. Based on the project site plan, the project is assumed to have rooftop HVAC units atop each proposed building and assumed to operate 24 hours per day. The HVAC equipment could operate 24 hours per day and would generate sound power levels (L_w) of up to 87 dBA L_w or 72 dBA L_{eq} at 5 feet, based on manufacturer data (Trane n.d.).

The closest off-site sensitive use during operation of the proposed project would be the existing single-family residences to the northeast of the project site, approximately 100 feet away from the nearest proposed building (Building E). After distance attenuation and shielding from the proposed rooftop HVAC screening walls, noise generated from on-site HVAC equipment proposed buildings would potentially reach up to 41.0 dBA L_{eq}, which would not exceed the County's exterior daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise standards of 50 dBA L_{eq} and 45 dBA L_{eq}, respectively, for residential uses. Therefore, with similar HVAC equipment to the previously mentioned reference equipment or by providing quieter HVAC equipment, the County's exterior noise level standard would be met, and noise associated with the on-site HVAC equipment would be less than significant.

ON-SITE LAND USE COMPATIBILITY ANALYSIS

The proposed project is in an area where parcels to the northeast, southeast, and south are currently in use. For this reason, this analysis relies on the existing measured noise levels as well as future predicted noise levels to provide the most accurate description of the noise environment related to traffic and rail activity noise impacts.

As described in the County's Noise Element of the General Plan, outdoor activity areas for medical services shall meet a noise level of 65 dBA L_{dn} while interior spaces shall meet a noise level of 45 dBA L_{dn}.

ON-SITE EXTERIOR NOISE IMPACTS

Based on the monitoring results shown in Table H, existing traffic noise levels at the project site ranges from 71.0 dBA L_{dn} near the eastern project boundary to 73.1 dBA L_{dn} near the western project boundary.

The main amenity area where humans will spend time includes the central courtyard which consists of: Social Lawn and games, Fitness, Active Zone, and Sports Court, located approximately 550 feet away from the I-5 centerline. After distance attenuation and shielding from the proposed buildings and fencing, the noise levels at the amenity would be below the acceptable level of 65 dBA L_{dn}, and no mitigation measures would be required.

ON-SITE INTERIOR NOISE IMPACTS

In addition to the exterior noise level standards, the project must demonstrate compliance with the interior noise standard of 45 dBA L_{dn}. The nearest proposed buildings to I-5 are Buildings B and F, located approximately 240 feet and 425 feet away from the I-5 centerline, respectively. After distance attenuation, the traffic noise levels would approach 74.4 dBA L_{dn} at the western façade of Building B, and 69.5 dBA L_{dn} at the western façade of Building F.

Based on the United States Environmental Protection Agency's (USEPA) Protective Noise Levels (USEPA 1974), with windows and doors open, interior noise levels at the units along the northern and eastern boundaries would be 62.4 dBA (i.e., 74.4 dBA – 12 dBA = 62.4 dBA), which would exceed the 45 dBA L_{dn} interior noise standard. The proposed project includes an HVAC system that would allow windows to remain closed. Based on reference information from transmission loss test reports for various Milgard windows (Milgard Windows 2008), the necessary reduction can be achieved with standard building construction along with upgraded windows in the Sound Transmission Class 30–35 range, and a reduction of 30 dBA or more would be achieved with windows in a closed position. With a reduction of 30 dBA or more, interior noise levels would remain below the County's interior noise level standard of 45 dBA L_{dn}.

Similarly, with windows and doors open, interior noise levels at Building F would be 57.5 dBA (i.e., 69.5 dBA – 12 dBA = 57.5 dBA), which would exceed the 45 dBA L_{dn} interior noise standard. Based on reference information from transmission loss test reports for various Milgard windows (Milgard Windows 2008), the necessary reduction can be achieved with standard building construction along

with standard windows, typically in the Sound Transmission Class 25–28 range, and a reduction of 25 dBA or more would be achieved with windows in a closed position. With a reduction of 25 dBA or more, interior noise levels would remain below the County's interior noise level standard of 45 dBA L_{dn}.

Once final plans are available to detail the exterior wall construction and a window manufacturer has been chosen, a Final Acoustical Report would be required to confirm the reduction capability of the exterior façades and to identify any specific upgrades necessary to achieve an interior noise level of 45 dBA L_{dn} or below.

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APPENDIX B

CONSTRUCTION NOISE LEVEL CALCULATIONS

Noise Measurement Survey – 24 HR

Project Number: 20242005.01
Project Name: SJ Be Well

Test Personnel: Moe Abushanab
Equipment: LD Spark 706RC (SN17815)

Site Number: LT-1 Start Date: 11/7/2024

Time: From 3:00 p.m. To 3:00 p.m.

Site Location: On a tree near northwest corner of project site, approximately 280 ft away from the I-5 centerline and 940 ft away from the Hospital Road centerline.

Primary Noise Sources: Traffic on I-5
Occasional aircraft noise

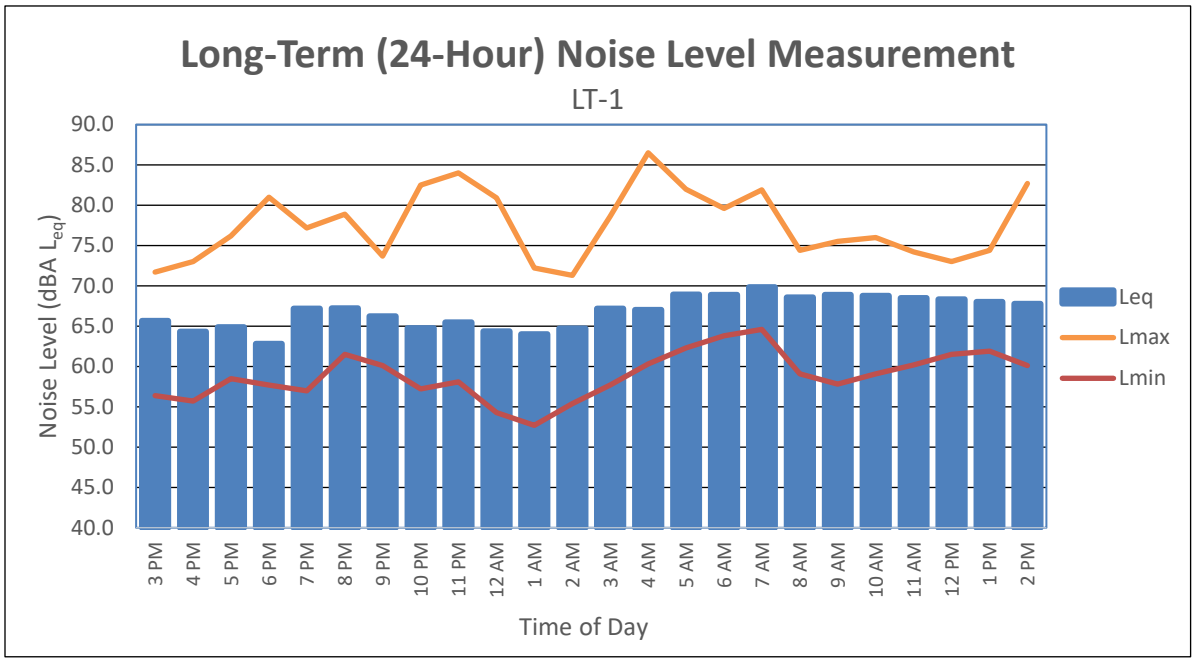
Comments:

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
3:00 PM	11/7/2024	65.7	71.7	56.4
4:00 PM	11/7/2024	64.3	73.0	55.7
5:00 PM	11/7/2024	64.9	76.2	58.5
6:00 PM	11/7/2024	62.8	81.0	57.7
7:00 PM	11/7/2024	67.2	77.2	57.0
8:00 PM	11/7/2024	67.2	78.9	61.5
9:00 PM	11/7/2024	66.2	73.7	60.1
10:00 PM	11/7/2024	64.7	82.5	57.2
11:00 PM	11/7/2024	65.5	84.0	58.1
12:00 AM	11/8/2024	64.4	80.9	54.3
1:00 AM	11/8/2024	64.0	72.2	52.7
2:00 AM	11/8/2024	64.7	71.3	55.4
3:00 AM	11/8/2024	67.2	78.6	57.7
4:00 AM	11/8/2024	67.0	86.5	60.3
5:00 AM	11/8/2024	68.9	82.0	62.3
6:00 AM	11/8/2024	68.9	79.6	63.8
7:00 AM	11/8/2024	69.8	81.9	64.6
8:00 AM	11/8/2024	68.6	74.4	59.1
9:00 AM	11/8/2024	68.9	75.5	57.8
10:00 AM	11/8/2024	68.8	76.0	59.1
11:00 AM	11/8/2024	68.5	74.2	60.2
12:00 PM	11/8/2024	68.3	73.0	61.5
1:00 PM	11/8/2024	68.0	74.4	61.9
2:00 PM	11/8/2024	67.8	82.7	60.1

Source: Compiled by LSA Associates, Inc. (2024).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20242005.01
Project Name: SJ Be Well

Test Personnel: Moe Abushanab
Equipment: LD Spark 706RC (SN17119)

Site Number: LT-2 Start Date: 11/7/2024

Time: From 3:00 p.m. To 3:00 p.m.

Site Location: On a tree south of Hospital Road, west of Eldorado Palms Apartments, approximately 40 ft away from the Hospital Road centerline and 420 ft away from the El Dorado Street centerline.

Primary Noise Sources: traffic on I-5, Hospital Road, and El Dorado Street.
Occasional aircraft noise
Occasional railroad activity

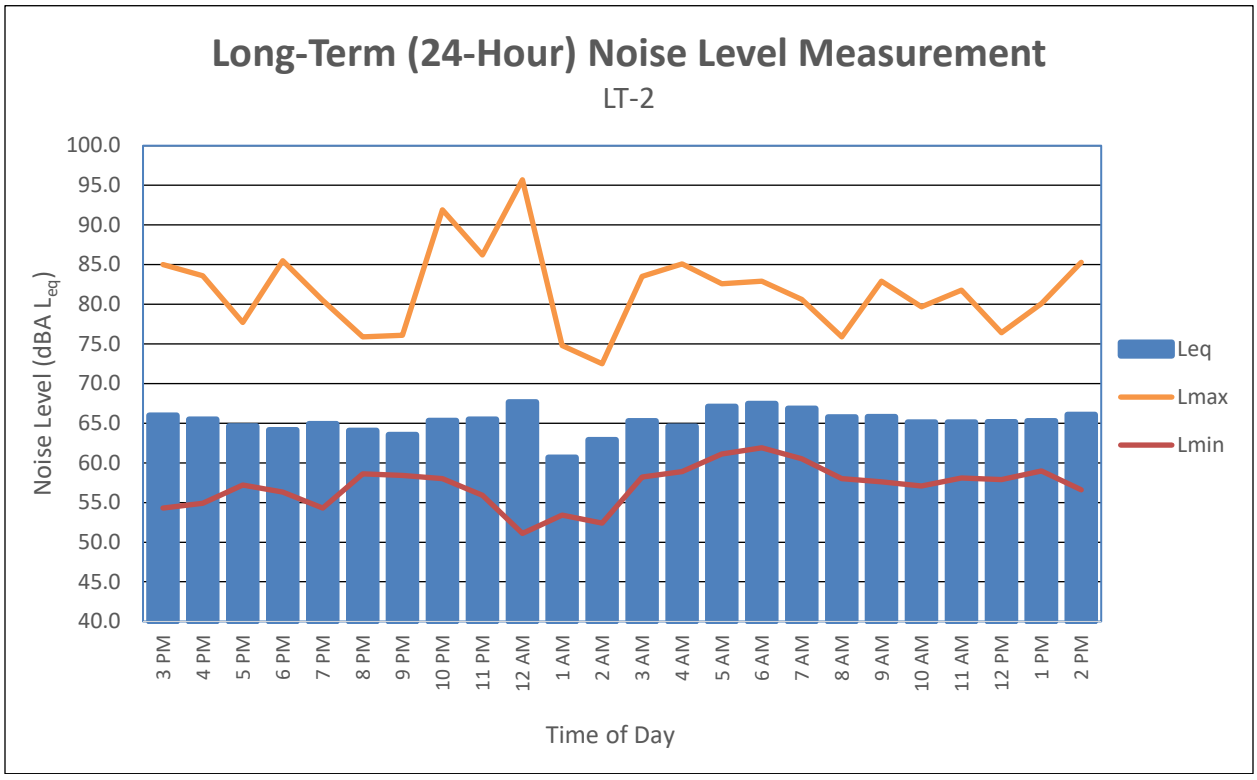
Comments:

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
3:00 PM	11/7/2024	66.0	85.0	54.3
4:00 PM	11/7/2024	65.5	83.6	54.9
5:00 PM	11/7/2024	64.6	77.7	57.2
6:00 PM	11/7/2024	64.1	85.5	56.3
7:00 PM	11/7/2024	64.9	80.5	54.3
8:00 PM	11/7/2024	64.1	75.9	58.6
9:00 PM	11/7/2024	63.5	76.1	58.4
10:00 PM	11/7/2024	65.3	91.9	58.0
11:00 PM	11/7/2024	65.5	86.2	55.9
12:00 AM	11/8/2024	67.7	95.7	51.1
1:00 AM	11/8/2024	60.7	74.8	53.4
2:00 AM	11/8/2024	62.9	72.5	52.4
3:00 AM	11/8/2024	65.3	83.5	58.2
4:00 AM	11/8/2024	64.6	85.1	58.9
5:00 AM	11/8/2024	67.1	82.6	61.1
6:00 AM	11/8/2024	67.4	82.9	61.9
7:00 AM	11/8/2024	66.8	80.6	60.5
8:00 AM	11/8/2024	65.7	75.9	58.0
9:00 AM	11/8/2024	65.8	82.9	57.6
10:00 AM	11/8/2024	65.1	79.7	57.1
11:00 AM	11/8/2024	65.1	81.8	58.1
12:00 PM	11/8/2024	65.2	76.4	57.9
1:00 PM	11/8/2024	65.3	80.1	59.0
2:00 PM	11/8/2024	66.1	85.3	56.6

Source: Compiled by LSA Associates, Inc. (2024).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20242005.01
Project Name: SJ Be Well

Test Personnel: Moe Abushanab
Equipment: LD Spark 706RC (SN18906)

Site Number: LT-3 Start Date: 11/7/2024

Time: From 3:00 p.m. To 3:00 p.m.

Site Location: On a pole west of residence at 5601 El Dorado Street, approximately 85 ft away from the El Dorado Street centerline.

Primary Noise Sources: traffic on El Dorado Street and I-5
Occasional railroad activity
Occasional aircraft noise

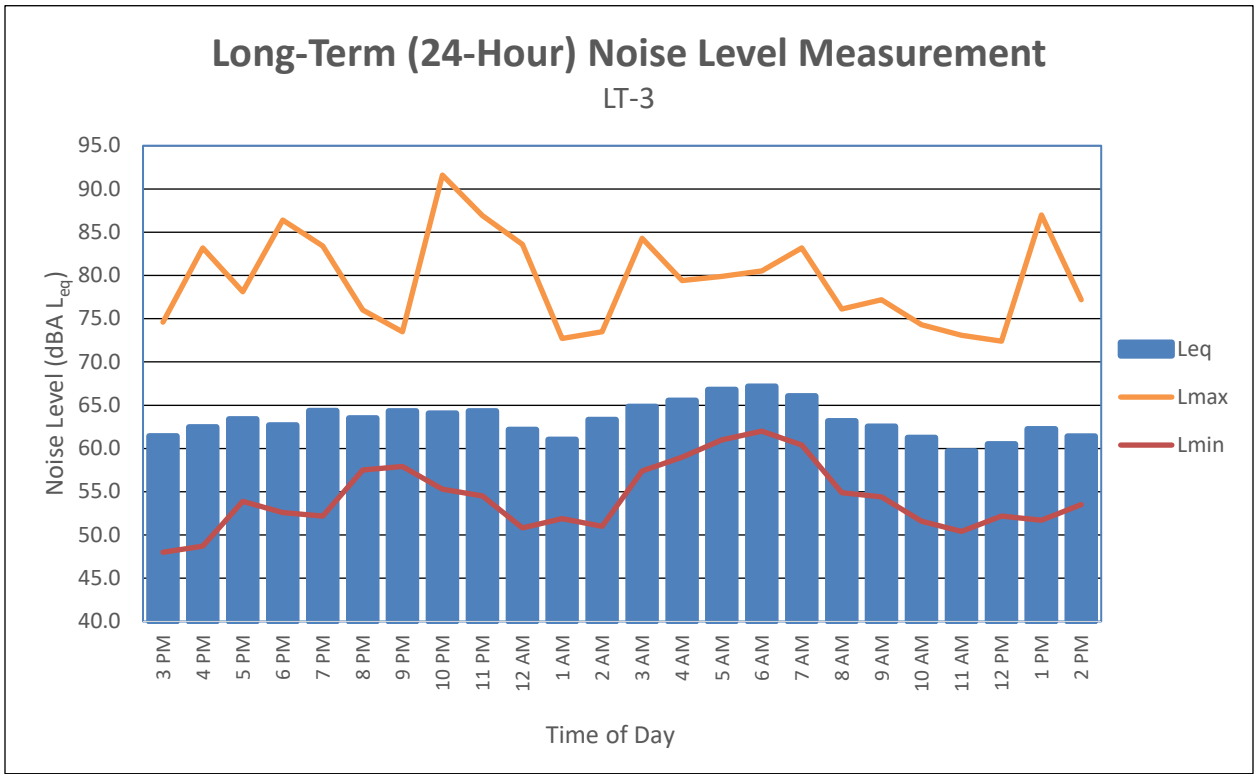
Comments:

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-3

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
3:00 PM	11/7/2024	61.4	74.6	48.0
4:00 PM	11/7/2024	62.5	83.2	48.7
5:00 PM	11/7/2024	63.4	78.1	53.9
6:00 PM	11/7/2024	62.7	86.4	52.6
7:00 PM	11/7/2024	64.4	83.4	52.2
8:00 PM	11/7/2024	63.5	76.0	57.5
9:00 PM	11/7/2024	64.3	73.5	57.9
10:00 PM	11/7/2024	64.1	91.6	55.3
11:00 PM	11/7/2024	64.3	86.9	54.5
12:00 AM	11/8/2024	62.2	83.6	50.8
1:00 AM	11/8/2024	61.0	72.7	51.9
2:00 AM	11/8/2024	63.3	73.5	51.0
3:00 AM	11/8/2024	64.9	84.3	57.4
4:00 AM	11/8/2024	65.6	79.4	59.0
5:00 AM	11/8/2024	66.8	79.9	61.0
6:00 AM	11/8/2024	67.2	80.5	62.0
7:00 AM	11/8/2024	66.1	83.2	60.4
8:00 AM	11/8/2024	63.2	76.1	54.9
9:00 AM	11/8/2024	62.6	77.2	54.4
10:00 AM	11/8/2024	61.3	74.3	51.6
11:00 AM	11/8/2024	59.7	73.1	50.4
12:00 PM	11/8/2024	60.5	72.4	52.2
1:00 PM	11/8/2024	62.3	87.0	51.7
2:00 PM	11/8/2024	61.4	77.2	53.5

Source: Compiled by LSA Associates, Inc. (2024).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Construction Calculations

Phase: Site Preparation

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Tractor	4	84	40	50	0.5	84	86
Dozer	3	82	40	50	0.5	82	83
					Combined at 50 feet	**86**	**88**
					Combined at Receptor 440 feet	**67**	**69**
					Combined at Receptor 660 feet	**64**	**65**
					Combined at Receptor 820 feet	**62**	**63**

Phase: Grading

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Grader	1	85	40	50	0.5	85	81
Dozer	1	82	40	50	0.5	82	78
Tractor	2	84	40	50	0.5	84	83
Scraper	2	84	40	50	0.5	84	83
Excavator	2	81	40	50	0.5	81	80
					Combined at 50 feet	**90**	**88**
					Combined at Receptor 440 feet	**72**	**70**
					Combined at Receptor 660 feet	**68**	**66**
					Combined at Receptor 820 feet	**66**	**64**

Phase:Building Construstion

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Crane	1	81	16	50	0.5	81	73
Man Lift	3	75	20	50	0.5	75	73
Tractor	3	84	40	50	0.5	84	85
Generator	1	81	50	50	0.5	81	78
Welder / Torch	1	74	40	50	0.5	74	70
					Combined at 50 feet	**87**	**86**
					Combined at Receptor 440 feet	**69**	**67**

Phase:Paving

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Paver	2	77	50	50	0.5	77	77
Roller	2	80	20	50	0.5	80	76
All Other Equipment > 5 hp	2	85	50	50	0.5	85	85
					Combined at 50 feet	**87**	**86**
					Combined at Receptor 440 feet	**68**	**67**

Phase:Architectural Coating

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA)	
						Lmax	Leq
Compressor (air)	1	78	40	50	0.5	78	74
					Combined at 50 feet	**78**	**74**
					Combined at Receptor 440 feet	**59**	**55**

Sources: RCNM

[1]- Percentage of time that a piece of equipment is operating at full power.
dBA – A-weighted Decibels
Lmax- Maximum Level
Leq- Equivalent Level

Construction Traffic Noise Calculator

Construction Phase	One-Way Worker Trip/Day	One Way Vendor Trip/Day	One Way Hauling Trip Number	Total
Site Preparation	17.5	0	0	17.5
Grading	22.5	0	0	22.5
Building Construction	247	60.4	0	307.4
Paving	15	0	0	15
Architectural Coating	49.3	0	0	49.3
Maximum				**307**

Phase Number	Phase Name	Number of Days
1	Site Preparation	30
2	Grading	20
3	Building Construction	290
4	Paving	10
5	Architectural Coating	140

Roadway	Speed	Existing Volume	MT Factor	HT Factor
S El Dorado St	45	7261	12.6	38

	Worker Trip/Day	Vendor Trip/Day	Hauling Trip Number	Total	Overlap?
Site Preparation	**18**	**0**	**0**	18	
Grading	**23**	**0**	**0**	23	
Building Construction	**247**	**1,529**	**0**	1776	
Paving	**15**	**0**	**0**	15	
Architectural Coating	**49**	**0**	**0**	50	

Overlap? **N**

Total Equivalent Vehicles **1,776**

Noise Increase (dBA) **0.95**

Speed	MT Factor	HT Factor
25	16	83.3
30	15	65
35	14	53.3
40	13.2	45
45	12.6	38
50	12	33
55	11.5	29
60	11.1	26
65	10.8	23

APPENDIX C

FHWA TRAFFIC NOISE MODEL PRINTOUTS

TABLE Existing -01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13280 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	92.5	286.4	903.5

TABLE Existing -02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14550 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.0	313.6	989.9

TABLE Existing -03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5810 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	91.4	285.6

TABLE Existing -04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7110 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	0.0	111.4	349.4

TABLE Existing -05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Manthey Road South of French Camp Road
NOTES: San Joaquin Be Well Project - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4750 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	53.1	161.7

TABLE Existing -06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Frank West Circle North of French Camp Road
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1480 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing -07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Arch Airport Road East of French Camp Road
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20130 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	139.1	433.4	1368.5

TABLE Existing -08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street North of French Camp Road
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10630 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	100.0	307.2	968.5

TABLE Existing -09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street South of French Camp Road
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9530 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	90.3	275.6	868.4

TABLE Existing -10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 230 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 47.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing -11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1710 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	85.3

TABLE Existing -12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13740 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	127.6	396.6	1251.7

TABLE Existing -13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10470 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	98.6	302.6	953.9

TABLE Existing With Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Existing With Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13330 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	92.9	287.4	906.9

TABLE Existing With Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Existing With Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14600 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.3	314.7	993.3

TABLE Existing With Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6620 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	103.9	325.3

TABLE Existing With Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7290 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	114.2	358.2

TABLE Existing With Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Manthey Road South of French Camp Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4770 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	53.3	162.3

TABLE Existing With Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Frank West Circle North of French Camp Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1480 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing With Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Arch Airport Road East of French Camp Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20180 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	139.4	434.5	1371.9

TABLE Existing With Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street North of French Camp Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10740 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.0	310.4	978.5

TABLE Existing With Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street South of French Camp Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10630 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	100.0	307.2	968.5

TABLE Existing With Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 230 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 47.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Existing With Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2050 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	101.8

TABLE Existing With Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14030 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	130.2	404.9	1278.1

TABLE Existing With Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10730 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	100.9	310.1	977.6

TABLE Baseline-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15450 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.0	333.0	1051.1

TABLE Baseline-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21330 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	146.5	459.3	1451.0

TABLE Baseline-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6540 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	102.6	321.4

TABLE Baseline-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7680 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	120.2	377.3

TABLE Baseline-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Manthey Road South of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7270 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	79.3	246.8

TABLE Baseline-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Frank West Circle North of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1480 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Baseline-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Arch Airport Road East of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
65.8	194.0	608.8	1923.5

TABLE Baseline-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street North of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	106.8	329.3	1038.6

TABLE Baseline-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street South of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	97.1	297.7	938.5

TABLE Baseline-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 230 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 47.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Baseline-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1790 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	89.2

TABLE Baseline-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17710 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
56.8	163.2	510.7	1613.1

TABLE Baseline-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10750 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.1	310.7	979.4

TABLE Baseline With Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.3	334.0	1054.5

TABLE Baseline With Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21380 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	146.8	460.3	1454.4

TABLE Baseline With Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7350 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	115.1	361.1

TABLE Baseline With Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7860 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	122.9	386.1

TABLE Baseline With Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Manthey Road South of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8080 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	87.9	274.2

TABLE Baseline With Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Frank West Circle North of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1480 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Baseline With Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Arch Airport Road East of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28350 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
65.9	194.3	609.9	1926.9

TABLE Baseline With Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street North of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11510 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	0.0	107.8	332.5	1048.6

TABLE Baseline With Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street South of French Camp Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	106.8	329.3	1038.6

TABLE Baseline With Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 230 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 47.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Baseline With Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2130 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	105.6

TABLE Baseline With Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18020 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
57.6	166.0	519.6	1641.3

TABLE Baseline With Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Baseline With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11030 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	103.5	318.7	1004.9

TABLE Future-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20430 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	140.4	439.9	1389.8

TABLE Future-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26310 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.26

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
60.0	180.1	566.3	1789.5

TABLE Future-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14580 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	73.1	226.8	715.8

TABLE Future-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17370 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	86.6	270.1	852.8

TABLE Future-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Manthey Road South of French Camp Road
NOTES: San Joaquin Be Well Project - Future

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14860 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	52.5	160.0	503.8

TABLE Future-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Frank West Circle North of French Camp Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1480 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Future-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Arch Airport Road East of French Camp Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29880 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
68.9	204.6	642.7	2030.9

TABLE Future-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street North of French Camp Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16470 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	152.1	475.1	1500.3

TABLE Future-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street South of French Camp Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13440 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	125.0	387.9	1224.4

TABLE Future-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 780 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Future-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1790 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	89.2

TABLE Future-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17710 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
56.8	163.2	510.7	1613.1

TABLE Future-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Future

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10750 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	101.1	310.7	979.4

TABLE Future With Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20480 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	140.8	441.0	1393.2

TABLE Future With Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26360 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 20 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
60.1	180.4	567.3	1792.9

TABLE Future With Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15390 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.77

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	77.0	239.4	755.6

TABLE Future With Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: French Camp Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17550 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	87.5	272.9	861.6

TABLE Future With Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Manthey Road South of French Camp Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14540 SPEED (MPH): 30 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	156.6	493.0

TABLE Future With Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Frank West Circle North of French Camp Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1480 SPEED (MPH): 25 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Future With Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Arch Airport Road East of French Camp Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29930 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.0	205.0	643.8	2034.3

TABLE Future With Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street North of French Camp Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16580 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	153.1	478.2	1510.3

TABLE Future With Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: El Dorado Street South of French Camp Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14540 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	134.8	419.6	1324.5

TABLE Future With Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road East of El Dorado Street
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 780 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE Future With Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Hospital Road West of El Dorado Street
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2140 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 15 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	106.1

TABLE Future With Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road East of Manthey Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18020 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
57.6	166.0	519.6	1641.3

TABLE Future With Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/12/2025
ROADWAY SEGMENT: Mathews Road West of Manthey Road
NOTES: San Joaquin Be Well Project - Future With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11030 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 25 SITE CHARACTERISTICS: HARD

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	103.5	318.7	1004.9
